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A THESIS ON

M A T T E R A N D K N O W L E D G E

SUBMITTED TO THE FACULTY OF PHILOSOPHY

OF

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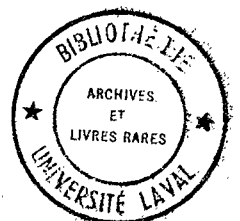
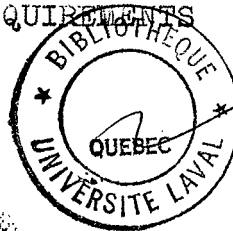
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M A T T E R A N D K N O W L E D G E

BY

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Propositions to be defended at the preliminary examination.

1. "Secundum modum immaterialitatis est modus cognitionis".
(I.14.1)

2. "Tota natura corporalis ad intellectualem ordinatur".
(Compendium Theologiae. c.148)

3. "Intellectus noster directe non est cognoscitivus nisi universalium; indirecte autem, et quasi per quamdam reflexionem, potest cognoscere singulare".
(I.86.1)

4. "Patet ergo quod Deus potest cognitionem habere aliquorum non entium; et quamvis posset dici quod intueatur ea in sua potentia, quia nihil est quod ipse non possit, tamen accomodatius dicitur quod intuetur ea in sua bonitate, quae est finis omnium quae ab ipso fiunt". (De Veritate II.8)

5. "Invenitur igitur uniuscujusque effectus secundum quod est sub ordine divinae providentiae necessitatem habere". (In VI Metaphysicorum. III.#1220)

Notes on References and Sources

1. For greater convenience, as few notes as possible have been added. References, and the like, have been immediately inserted in the text, while only those notes which would break its continuity have been placed at the end of the volume.
2. Since references to St. Thomas are most frequent and his works so well known, the name of St. Thomas has been omitted in all references to his works. In the case of the Summa Theologica, even the title of the work has been omitted. Since all other authors and works are cited by name, there should be no confusion.
3. References to the works of John of St. Thomas (J.S.T.) have the pagination as follows: Cursus Theologicus: Solesmnes Edition, Desclée, Paris, 1934; Cursus Philosophicus: Reiser Edition, Marietti, Turin, 1933.

I N T R O D U C T I O N

The title of this brief work suggests a treatment of the manifold and involved problems centered around the relations existing between matter and knowledge in Thomistic Philosophy. Many of those relations are undoubtedly cornerstones of the Thomistic System. And anyone in any way familiar with the works of St. Thomas will immediately recall how St. Thomas not only continually ascribes the knowability of and object to its immateriality, but also makes immateriality the root of the power to know in the knower. But on the other hand, material beings both know and are known. The senses are faculties of knowledge residing in material organs and attaining objects in definitely material conditions. Man's intellect in the state of union is the faculty of a soul which is form of a material body. And that intellect has for object the quiddity of material beings. Moreover, the knowledge of even prime matter - at least in some way - is clearly ascribed by St. Thomas to God, angels, and even to the human intellect after death. The apparent incongruity among these doctrines is only the starting point of the investigation on the profound meaning of the principles involved, their exact significance, the necessary distinctions to be made in

the many applications to the numerous specifically distinct forms of knowledge that grace the perfections of the universe.

Undoubtedly, much has been written on the subject. Not only as regards the penetration of the principles and their resolution to their ultimate roots, but also in bringing to light the many latent implications they contain. Much has also been done to resolve by the proper distinctions, the difficulties which necessarily always appear. One could well ask therefore, what a new treatment on the subject could contribute. It does not pretend to contribute anything new. But that a treatise be useful, it is not necessary that it give new doctrines. It is enough to unify and order doctrines that may be found scattered in previous works. And such is the aim of this treatment: to group into one brief work the doctrines regarding the relations existing between matter and knowledge, to interconnect them, to trace them as far as possible to their roots, and to order the many distinctions that must be made in the solution of difficulties.

Since the topic treated is so limited, many other doctrines will necessarily have to be presupposed. It should be stated from the very beginning that the author's starting point is the Aristotelico-Thomistic

system, many aspects of which may be referred to without in any way being justified in this work. The aim is only to show how, within that system, we must envisage one particular problem. The sources, after Aristotle and St.Thomas, will be the great commentators, particularly John of St.Thomas and Cajetan.

"Ea quae consequuntur aliquod commune, prius et seorsum determinanda sunt, ne oporteat ea multoties pertractando omnes partes illius communis repetere". (In I Phys. Lect.I, #4)

Such is the reason why Aristotle first gives the general doctrines of Natural Philosophy, in his eight books of Physics, to avoid unnecessary repetition in the following particularized works of Natural Philosophy. For the same purpose, it will be useful here, in two preliminary chapters, to treat of general notions of matter and knowledge that will return again and again in subsequent chapters. Far from aiming to give a complete treatment of those two subjects - in no way possible here -, the first two chapters will rather point out various aspects that will have an important bearing on the subject matter, aspects later to be referred to. This will, the author believes, explain the apparent superficiality of the treatment.

Chapter I. M A T T E R

1. Prime matter: a constitutive principle of bodies.

One need not be initiated in Philosophy to have a notion of matter. The earliest experiences of a child show him that things are "made out" of others. He sees his mother produce a pie from apples, flour, water, etc. He watches the cement and lumber go into the construction of a building. And undoubtedly, he soon realizes that he himself, somehow or other, is "made up" of the carrots and spinach he consumes. Nor is the constructive process the only one in his experience. The tearing down of buildings also reveals to him what they are made of. And not content to be merely passive, every child, consumed by the desire to know the make-up of things, actively sets out to find out for himself what things are made of. The traditional investigation into the inner works of a watch - part of every child's life - though perhaps more prompted by that desire to "see what makes it run", is also undoubtedly hastened by the desire to have a knowledge of the inner make-up. How many dolls and teddybears - in which there was no "running"

to be investigated - have been sacrificed to such scientific investigations!

All men realize that things are "made up" of others. They may speak of "stuff", "matter", "constituents", but the notion is always the same: something out of which other things are made. Matter is nothing more than that, as far as a purely nominal definition goes.

"Et ideo, aes statuæ, et argentum phialæ, sunt causa per modum materiae". (In V Metaph. Lect. II #763)

"Et in omnibus istis est una ratio causæ, secundum quod dicitur causa illud ex quo fit aliquid, quod est ratio causæ materialis". (Ibid. Lect. III #777)

But the problem becomes complicated when we realize the variety of things and the variety of changes. Though pies are made of flour and apples, we realize that the flour itself, and the apples, have also been made of other things. A rich soil, water, perhaps even sunshine, through the activity of the plant, have been made into wheat and fruits. Is the soil itself made out of something? A superficial knowledge of modern science reveals that we may go many steps further. But how far may we go? Is there an infinite series facing us, along which we are bound to stop only because of the limitations of our microscopes?

Philosophy started with that problem. The early Ionians: Thales - the Father of Philosophy - , Anaximander and Anaximenes, revealed to the world that all things are made of water, or of air. Later Greek philosophers spoke wisely about atoms, or about the four primary elements: air, earth, water, fire.

Their efforts seem puny to us in the light of present-day technical treatises. Atoms were classified into ninety eight groups. These groups began to split up as protons and electrons came on the scene. Illustrous treatises followed on positons, negatons, neutrons. And who knows where all the present-day talk about energy, light, electricity, photons, quanta, not to speak of waves of probability, will lead?

But despite the differences, there is a very definite similarity existing between the early Ionians and all but the most recent scientists. Both groups were imagination-bound. The matter that they sought would always be similar to the flour and apples: something to be seen and touched. To be sure, progressive smallness soon puts the matter beyond the threshold of the senses and even of the most powerful microscopes. But at least, we always have the imagination. That, at least, can always picture the matter.....

Aristotle was the first to perceive clearly what was lacking. There was change, movement, to take into account. And especially, the distinction between accidental and substantial changes. The all-important and all revealing fact of experience is that the substantial natures of things change. It is not merely a question of number of parts, nor of the order of their juxtaposition, in the way locomotives and automobiles are built. There are also the changes in which things cease to be what they were to become entirely different things, as the spinach and carrots transformed into man.

That is what the pre-Aristotelians overlooked.

✓ For them, there were as many substances as there were elements, whether one or many. And these were for ever changeless. That is, substantially. All composite bodies differed merely accidentally from one another, whether by the number of elements in them, or the order of those elements, or the like.

"Nihil opinati sunt fieri; nec opinati sunt quod aliquid eorum praeter id quod ponebant primum principium materiale, haberet esse substantiale. Puta, dicentes aerem esse primum materiale principium, dicebant omnia alia significare quoddam esse accidentale; et sic excludebant omnem generationem substantialem, solam alterationem relinquentes". (In II Phys. Lect.XIV.4)

The problem was simplified. Or rather, it was avoided. They analyzed all bodies into one or many primary elements, much as a chemist will analyze a bottle

of medicine. The problem of the constitution of the elements themselves, substances for them, never arose. Because they denied substantial changes.

If there were just accidental changes, the problem of the make-up of bodies would be simplified. All bodies would be reduced ultimately to one or many primary elements - for the ancients, air, water, fire, or earth - and the investigation would stop there. These principles or material causes, out of which all bodies would be made, would be complete corporeal substances, of the sensible order. The problem of the make-up of these ultimate elements would not arise. But if one takes into account substantial changes, then the investigation must be pushed further. The ultimate sensible particles, since their very nature changes, must themselves be broken up into constituents. But to find them, we must discard our knives, microscopes, apparatus for bombarding atoms, and even our imagination. We must pass from sensible principles to purely intelligible principles.

And since there are **real** substantial changes, there must be two principles involved. The one, a permanent underlying reality which undergoes the change, (for it is not a question of successive annihilations and creations); the other, that which ceases to be or becomes. The subject of the change, Aristotle called

prime matter. Its determining principle, substantial form. But no amount of microscopes, no amount of imagination, will ever see these constituent elements. They are not sensible substances, but intelligible principles of sensible substances.

It was their failure to thus take account of substantial changes that limited the early Greek philosophers. For the same reason, many modern scientists proceed on the assumption that science - not philosophy - must have the last word in determining the ultimate constituents of bodies. Better, perhaps, it is the neglect of intellect and the materialism of knowledge. All matter, all constituents, must be sensible, is the contention. It is a failure to rise above sense knowledge, and hence only a sensible matter is known.

"Antiqui philosophi paulatim et pedetentim intraverunt in cognitionem veritatis. A principio enim quasi grossiores existentes non existimabant esse entia nisi corpora sensibilia: quorum qui ponebant in eis motum, non considerabant motum nisi secundum aliquam accidentia". (I.44.2)

"Primi qui secundum philosophiam inquisierunt veritatem et naturam rerum, diverterunt in quandam aliam viam a via veritatis et a via naturali: quod accidit eis propter infirmitatem intellectus eorum. Dixerunt enim quod nihil neque generatur neque corrumpitur: quod est et contra veritatem et contra naturam". (In II Phys. XIV.2)

"Antiqui philosophi naturales, non valentes usque ad primam materiam pervenire, ut supra

dictum est, aliquod corpus sensibile primam materiam omnium rerum ponebant, ut ignem vel aerem vel aquam: et sic sequebatur quod omnes formae advenirent materiae tanquam in actu existenti, ut contingit in artificialibus; nam forma cultelli advenit ferro iam existenti in actu. Et ideo similem opinionem accipiebant de formis naturalibus, sicut de formis artificialibus". (In II Phys. Lect.II.1)

Aristotle's conception of prime matter - the ultimate material cause in corporeal beings - differs toto coelo from the conception of material cause of his predecessors. For his predecessors, material causes were always complete beings: whether air, water, fire, or earth. But for Aristotle, substantial changes can be rationally explained only if we analyze a simple being into two distinct principles: the indeterminate subject which undergoes the changes, and the formative principle which determines a body to be that which it is.

"Dico enim materiam, primum subiectum uniuscujusque ex quo fit aliquid cum insit, non secundum accidens". (Aristotle. I Phys. IX. 192a31)

"Dico autem materiam quae secundum se, nec quid, nec quantitas, nec aliud aliquid eorum dicitur, quibus est ens determinatum". (Aristotle. VII Metaphys. III.1029a20)

But there we have what is of the greatest importance in the consideration of this prime matter: its character of pure potentiality. That prime matter be a real principle of a real being, and yet of itself be no more than pure potentiality, that is something stag-

gering for our sense-bound human intellects. Hence, not only did Aristotle's predecessors fail to arrive at such an understanding of prime matter, but even his followers, even among so-called "Scholastic" philosophers, and even down to the present day, have continually sought to render prime matter more palatable by actuating it somehow or other. However, nough but pure potentiality could, in the eyes of Aristotle, save the evident fact of substantial changes. There can be no half-way measures: we must choose between the two: "Nothing but accidental changes", or, "Prime matter is pure potency".

"Ex hoc manifestum fit apud Aristotelem et D. Thomam, qui illum sequitur, omnino ignotum fuisse quod materia prima haberet ex se actum entitativum et existentiam incompletam".
(J.S.T. Philosophia Naturalis. III.1.2, 553a16)

We are all familiar with St. Augustine's difficulties in the conception of prime matter:

"Verum autem illud quod cogitabam, non privatione omnis formae, sed comparatione formosiorum erat informe: et suadebat vera ratio, ut omnis formae qualescumque reliquias omnino detraherem, si vellem prorsus informe cogitare; et non poteram: citius enim non esse censebam, quod omni forma privaretur; quam cogitabam quiddam inter formam, et nihil, nec formatum, nec nihil, informe prope nihil. --- Et haec quid est? --- Si dici posset: Nihil aliquid est, et non est". (St. Augustin. Confessions. XII.6)

His difficulties are typical. Many others,

since the time of Aristotle, faced with the same difficulty, chose the easy road of attributing to matter some kind of "imperfect" form. But such, as we mentioned above, is unheard of in Aristotle, St. Thomas, and their commentators. Indeed, it spells the ruin of the whole Aristotelian solution and denies the self-evident fact of truly substantial changes. But though we insist here on the pure potentiality of prime matter, it is not with the intention of developing the question. It is only that Aristotle's conception of prime matter must be well understood before we speak of the relations between matter and knowledge. Everything that follows becomes entirely meaningless if prime matter is not understood in the strictly Aristotelian sense exposed. ✓

2. Types of matter.

From what has been said, we gather that the term "matter" has at least two meanings: the prime matter of Aristotle and the sensible matter of his predecessors. Unfortunately, the term is also used in a variety of other ways. To avoid confusion in later chapters, it will be necessary to distinguish here its various applications.

We distinguish first of all prime matter and second matter. Since we arrived at the notion of prime

matter by distinguishing substantial from accidental changes, or substantial from accidental forms, we see immediately that second matter will be that matter which is subject of the accidental, not the substantial, changes. In other words, the fully constituted substance. Substantial forms are as justly called first acts or forms; and the accidents, second acts or forms. But that which it is important to note, especially in speaking of relations with knowledge later, is that second matter is no longer pure potentiality, but an actuated substance. It is called matter only with regard to the accidents, toward which it is a material cause, or subject of inherence.

"Et est sciendum quod quaedam materia habet compositionem formae, sicut aes, cum sit materia idoli, ipsum tamen aes est compositum ex materia et forma, et ideo aes non dicitur materia prima, quia habet formam". (Opusc. XXX. De Principiis Naturae)

An equally important distinction is that between sensible matter and intelligible matter. A complete treatise here would lead us far afield, since there are at least apparently contradictory texts in St. Thomas regarding the exact definitions of each. We know that the distinction arises in the specification of the speculative sciences. Philosophy of Nature abstracts from individual matter, but not from sensible matter. Mathematics, from sensible matter, but not from intelli-

gible matter. And Metaphysics, from all matter. The best explanation seems to be given in I.85.1 ad 2, which John of St.Thomas sums up as follows: (Logica.II. 27.1, 820b22):

"Sensibilis, quae reddit illam (rem) accidentibus sensibilibus subiectam, saltem in communi; intelligibilis, quae est substantia, ut subiacet quantitati etiam sine aliis accidentibus".

Prime matter is the immediate subject of substantial form, constituting with it the substance. Substance is the immediate subject of quantity, and, through the mediation of quantity, of qualities. It is only by these latter that bodies are sensible. If we abstract from them, what remains may be intelligible, but not sensible. Hence, as underlying qualities, matter will be termed sensible. Otherwise, it can only be intelligible. We might note here, as we mentioned before, that this sensible matter was the only matter known to pre-Aristotelians. Sensebound as they were, they could not conceive a matter that could not be seen or touched, viz., a matter without its qualities. ✓

The various matters spoken of so far have all had something in common. They are all "matter" in reference to prime matter, a substantial principle of corporeal beings. We might call that matter corporeal matter. Whether we are dealing with prime matter or second matter; with sensible or intelligible matter; we are

always dealing with corporeal matter. But by extension, the term matter will apply to that which is so characteristic of prime matter, to potentiality. In a sense, - but a far different sense - , all potentiality is matter. Since there is such an important distinction between the two meanings of matter, we must always be careful to understand what is meant by the word. Otherwise, philosophical discussions would degenerate into merely verbal differences. The classical example is the question of the existence of spiritual matter in angels. We know how strongly St.Thomas repudiated any corporeal matter in angels.

"Sed adhuc ulterius impossibile est quod substantia intellectualis habeat qualemcumque materiam". (I.50.2)

But he realized that though corporeal matter was the more common and more proper acceptance of the term, yet all potency could also be called matter.

"Id communiter materia prima nominatur quod est in genere substantiae, ut potentia quaedam intellecta praeter omnem speciem et formam. --- Sic autem accepta materia (quae est propria ejus acceptio et communis), impossibile est quod materia sit in substantiis spiritualibus. --- Si tamen quaecumque duo se habent ad invicem ut potentia et actus, nominentur materia et forma; nihil obstat dicere, ut non fiat vis in verbis, quod in substantiis spiritualibus est materia et forma. --- Et sic in substantia spirituali est compositio potentiae et actus, et per consequens formae et materiae; si tamen omnis potentia nominetur materia et omnis actus nominetur forma. Sed tamen hoc non est proprie dictum secundum communem usum nominum". (Q.D. De Spiritualibus Creaturis. a.1)

Though the terminology may not be the more proper, yet St. Thomas himself, and the great commentators, will make free use of it. It is very important to notice that, since in relation to knowledge, the materiality or immateriality spoken of will rather be potentiality and actuality. Which brings us to a last distinction yet to be made.

The distinction between materiality and immateriality will be used frequently in the following pages. At times with reference to corporeal matter, but also at times with reference to potentiality. It is to be noted that it is only by denomination that the words matter and especially materiality will be used, viz., not that which is prime matter or is potency, but that which has matter or potency.

"Sic, id quod est ex materia, recipit
denominativam praedicationem materiae".
(In IX Meta. Lect. VI. 1842)

But if the word "materiality" is clear enough, the word "immateriality" is more confusing. It might seem to be a mere negation of materiality, or potentiality. But more than that is implied. The term is not only privative, but also affirmative, viz., of actuality. Since, however, it will be necessary later on to discuss this aspect in connection with certain doctrines, we will content ourselves here with merely noting the distinction.

We have considered the more important notions and distinctions of matter required for the present purpose. The consideration of knowledge will receive slightly more attention.

Chapter II. K N O W L E D G E.

1. Introduction.

The problem of the intimate nature of knowledge is one of the most intriguing. In Philosophy, we can easily understand its importance. It is the task of the Philosophy of Nature to delve into the nature of knowledge; of First Philosophy (Wisdom, Metaphysics), to vindicate its value. It is especially this latter aspect, the aspect of the value of knowledge, that has been the main problem of non-scholastic philosophers since the time of Descartes. When we think of the denominations given to modern systems - Idealism, Realism, Actual Idealism, Neo-Realism, Critical Realism, Phenomenalism, Criticism, Positivism, etc., etc., - we wonder if they deal with anything but the problem of the value of knowledge.

"La grande question de toute philosophie, et spécialement de la philosophie moderne, est celle du rapport de la pensée à l'être". (Engels, in, Etudes Philosophiques. Bibliothèque Marxiste. No. 19, p.22)

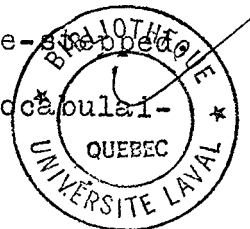
Since Descartes, many "solutions" have been

given. Philosophical "system" have been erected on the ruins of philosophical systems, - and were considered fortunate if they survived a generation. Perhaps not all so-called philosophers have been as mutable as Schelling. (1) But Heraclitus' doctrine that "All is change" would seem to come well nigh near realization in the history of modern philosophy. Finding themselves in such a predicament, it is not surprising that philosophers have turned to a reexamination of the foundations of philosophy in the problem of knowledge.

It is not our purpose to treat the question of the value of knowledge. But the problem of the nature of knowledge is equally important and its natural complement. Hence it is not surprising that we often find the two problems intermingled. But despite the importance given even to the nature of knowledge, we cannot but realize how inadequate all efforts have proven so far. So much so, that we will find the issue side-stepped at critical moments. Thus, for instance, Eddington, at the very beginning of his work, "The Philosophy of Physical Science", (Cambridge, 1939), in which so much depends on the nature of knowledge, astonishes us with the statement that,

"It will not be necessary for us to formulate a general definition of knowledge".

But there are times when the issue cannot be side-stepped as in the Lexicons. A typical example is the "Vocabulaire



re technique et critique de la philosophie". (Paris. Alcan. 1932) In this work, for the definition of "connaître", we find: "Avoir présent à l'esprit un certain objet de pensée vrai ou réel". But what is "esprit"? The same work defines it, "La réalité pensante en général". And what is "pensée"? It is defined by knowledge! Thus it is that we are sent around a circle of mere words, only to end where we had begun.

Not that given definitions are necessarily wrong. But they remain purely nominal definitions, when a real definition is the one sought for. It would seem that the most primary realities of experience - those, consequently, of which the nominal definition is the easiest - are the most elusive when it comes to real definitions. That is what made St. Augustine say, regarding time:

"Quid est ergo tempus? Si nemo ex me quaerat, scio; si quaerenti explicare velim, nescio".
(Confessions. XI.14.17)

And the failure to understand the given distinction is the reason of Descartes' childish vituperation on the aristotelian definitions of place and movement. (2) True, nothing is better known than movement, place, time, space, and a host of others. The most simple rustic, if questioned on movement, will certainly be astonished that anyone should seek explanations on such an evident reality. He might give the traditional answer to Zeno's arguments on the impossibility of move-

ment: walk around the questioner and say, "This is it!" For him, and many others, there is no more difficulty to defining than merely being able to tack a word on to a definite reality of experience.

But there is a world of difference between knowing to which well known object of experience a given word applies, and knowing the inner nature of that reality signified by the word. For the previous, it may be enough that we be given synonyms, translations, or that the object meant be pointed out to us. But to understand the object signified, it is not enough to agree on a conventional label and tack it on. Nor is it enough that it be a very common experience. Modern scientists seem hardly satisfied on the nature of light. Yet, who does not know what "light" is!

And so it is with knowledge. It is undoubtedly the most common experience in any man's life, since all other experiences are possible only through or with the experience of knowledge. No wonder that all "know" what "knowledge" is!

But any science, any system of philosophy, cannot be satisfied with such a mere nominal definition. One's doctrines on knowledge itself are bound to influence any other scientific or philosophical knowledge possessed.

This brings us to the Aristotelico-thomistic conception of knowledge. Though conceding the difficulties and obscurities of the subject, we believe some attempt must be made to understand the nature of the reality, knowledge. The explanation given so long ago by Aristotle is still very suggestive. With it, we feel that, even though everything is not crystal-clear, still we are going in the right direction.

But before speaking of knowledge itself, it will be necessary to first cast a glance at some fundamental Aristotelian doctrines, the better to understand his doctrine of knowledge. We know that Aristotle divides the speculative sciences into the three great branches of Philosophy of Nature, Mathematics, and Metaphysics. This, in virtue of the differences in the objects known, taken precisely as objects of knowledge. Such differences are caused by the degrees of abstraction from matter, as will be brought out in the course of this work. For the moment, it is the Philosophy of Nature and Metaphysics which interest us. The subject of Philosophy of Nature is "Ens Mobile", that is to say, a being which is essentially mobile, due to its having two constituent principles in its make-up, viz., matter and form. This being is consequently corporeal. Though the name "Dualism" lends itself to a variety of interpretations, it is correct

to apply it to Aristotles's doctrine of all corporeal beings in the meaning explained above: there is a duality of principles in their very essence: matter and form.

But there is not only corporeal, or material being. And being need not necessarily be considered as corporeal, but may be considered also in a higher degree of abstraction: being as being, whether corporeal or incorporeal. In this sense, it constitutes the object of the highest science, Metaphysics. But here again, we find a certain Dualism. Of course, there is no question of corporeal matter. But because beings, even as beings, change, or at least, become from a state of not-being, it is just as necessary to distinguish two principles, viz., potency and act, at least, as regards existence. All beings, therefore, whether corporeal or incorporeal, will be constituted of two distinct principles, potency and act. With one and only one exception: there must be one Being who is Pure Act.

What we have described might be termed Aristotle's analysis of being in the natural order. This is the order, we might say, in which beings subsist in their own right, in their own subjectivity. But there is another order which constitutes an entirely different world: the order of knowledge:

"Invenitur alius modus perfectionis in rebus creatis, secundum quod perfectio quod est propria unius rei, in altera re invenitur;

et haec est perfectio cognoscentis in quantum est cognoscens". (De Veritate.II.2)

There are therefore,

"duo genera entium: quaedam ad hoc primo instituta ut sint, quamvis forte secundario alia repraesentent; et haec vocamus res. Quaedam vero ad hoc primo instituta sunt naturaliter ut alia repraesentent: et haec vocamus intentiones rerum et species sensibiles seu intelligibiles". (Cajetan. In Summa Theologica. I.55.3.XIII)

2. "Fieri aliud in quantum aliud".

We come therefore to another Aristotelian Dualism: a higher and more momentous Dualism, a Dualism of orders: the natural and the intentional. The natural, or subjective, order, in which beings are constituted "ut sint". The other, the intentional, or objective, order, instituted to represent, to be objective. Even more, to BECOME other realities.

Which brings us to the traditional definitions: "Fieri aliud in quantum aliud". (Colligitur ex I.14.1 - J.S.T. Philosophia Naturalis. IV.4.1, 103b20) "Cognoscere est quodammodo fieri". (Ibid.) So that it can truly be said of the knowing soul, "Anima quodammodo omnia". (I.14.1) Knowledge can be understood only if

the universe be envisaged in the light of those two great orders: the natural and the intentional. Whereas in the natural order beings are imprisoned in the dark chamber of their own subjectivity; by the intentional order, beings break the bonds of their subjectivity to become objective: to leap through space and time and extend their own perfection by becoming - not naturally, but intentionally - other realities. This aspect of the intentional order, though most interesting, we will forego for the moment here. It will form one of our chief considerations in a later chapter and will be more fully developed there. For the moment, since we are considering only preliminary notions, we will limit ourselves to trying to understand what is meant by the description of knowledge as "Fieri aliud inquantum aliud".

There are two elements in the definition, each of which must be rightly understood: "Fieri aliud", and "inquantum aliud". That knowledge should be described as a "Becoming" is at first sight startling to the uninitiated. All would seem to prefer to consider it merely as a "representation". We like to think of knowledge merely as "representing to ourselves", just as we like to make analogies with paintings and photographs. That seems to suggest something on the nature of knowledge. And as a matter of fact, it is not so much wrong as incomplete. For the known must be in the knower.

Though in certain cases the union may be immediate, as we will see later, still it is not so for us in the present order. The object then, must have an ambassador, a "locum-tenens", and that will be the species, - a representation. But though that explains the representational part of knowledge, it does not represent the knowing part of it. We see thus how superficially they treat of knowledge who would conceive it as a mere representation. To understand knowledge, we must go deeper and analyze the union between the knower and the known. A mere juxtaposition of knower and species explains nothing. The canvas and the paint, the photographic paper and the picture, are as independent of each other, as though they were on different planets. They remain closed to each other, there is no real union, there is no knowledge. But if the representation were not merely juxtaposed, but entered into the very being of the subject, in a word if it informed the subject, then we would begin to understand what knowledge really is. That is why we must understand "in-formation" in order to understand knowledge.

"Non cognoscentia nihil habent nisi formam suam tantum; sed cognoscens natum est habere formam rei alterius, nam species cogniti est in cognoscente". (I.14.1)

Just as in corporeal beings matter becomes a man because it is "informed" by the human soul; just as in the meta-

physical order a potency becomes something by being "actuated" by an act; so in the order of knowledge the knower "becomes" the known because he is informed, actuated by the known object or, at least, by its representation, by its "intentional form". Here, there is no mere juxtaposition, but a union in the very order of being. The knower IS, in a sense, the thing known.

We must not however misunderstand the role of information. If we insist on information, it is only because it is easier thus to arrive at the true nature of knowledge by comparison with the better known union of matter and form, or potency and act. But knowledge is not a mere information, or a mere entitative union. It is an intentional, a representative union between knower and known. That is why information by a species which is an entitatively distinct quality, though that is the ordinary way of knowing, is not essential to knowledge. That is only one of the means of bringing about the intentional union, which we will better grasp after the explanation of "inquantum aliud".

"Hoc est munus speciei formaliter loquendo, id est, objectum potentiae unire, non entitative sed repraesentative, seu intelligibiliter". (J.S.T. Cursus Theologicus. XXI.2.II)
(3)

But there are also other means of bringing about this intentional union besides information by an entitatively

distinct quality. The substance itself may perform the function of species, since no more intimate union could be obtained in the entitative order. In that case, the substance finds itself in both orders, the natural and the intentional.

Many also like to think of knowledge as a "seeing", a "contemplation". Or perhaps, more crudely, as a "grasping" or a "having present in the mind" (as we saw above). "Seeing" may help us understand intellectual knowledge by the comparison with the more familiar sense of sight. "Having present" suggests that the known must be in the knower, as stated above. But such explanations remain in the order of purely nominal definitions. They are far - very far - from revealing the hidden nature of knowledge as is done by the word "Becoming".

The other, and equally important, element of the definition of knowledge is the "inquantum aliud". By this, the Becoming of knowledge is a "sui generis" mode of becoming. It distinguishes the Becoming of the intentional order from the Becoming of the natural order. There is a world of difference between the two: Becoming in the order of subjectivity and Becoming in the order of objectivity. When matter receives a form, or potency an act, the matter or the potency is the subject of the form or act. In such a union, it does not

become something else, nor does it become the form, nor the act, but from the union of the two there results the composite: the informed matter or the actualized potency.

"Cognoscens est ipsum cognitum actu vel potentia; materia autem nunquam est ipsa forma. --- Ex intellectu et intellecto non fit tertium, sicut ex materia et forma". (Cajetan. In I.14.1.IV. See also In I.79. 2.XIX)

But in the order of knowledge, the form received is not received as one's own, but as another's: it is received not subjectively, but objectively. (4)

The difference is seen most easily when the Becoming of knowledge is compared to substantial changes in material beings. Here, the acquisition of a new form involves the destruction of the old: "Corruptio unius est generatio alterius". The reason is that it is impossible for contraries to exist simultaneously in the same subject, the same reason given by Aristotle to explain the impossibility of anyone's believing the principle of contradiction false:

"Si quis igitur opinetur simul duo contradictoria esse vera, opinando simul idem esse et non esse, habebit simul contrarias opiniones: et ita contraria simul inerunt eidem, quod est impossibile". (5)

But in the Becoming of knowledge, not only is there no destruction of the form of the knower - on-

ly a form subjectively received would do that - but even, there need be no destruction of previous objectively received forms. I am not obliged to cease knowing a cat in order to know a dog, as matter must cease being a cat in order to become a dog. Natural beings are necessarily one kind of being. But knowing beings can become - even simultaneously, though only intentionally - many beings, with all beings as the limit. "Anima quodammodo omnia".

But if the difference is so noticeable when a comparison is made with substantial changes, it is less noticeable if we compare to accidental changes. For accidental changes which involve the passage from contrary to contrary, it is true, the comparison remains the same: the previous form must cease to be if the new form is to enter. Thus, a man may acquire a healthy tan at the seashore, but only on condition that he lose his whiteness. Wax may be pressed into the shape of a cube, provided it lose the shape of the sphere or any other it had before. Such a loss, as we mentioned above, is not necessary in the intentional order.

But what of the accidental changes that are merely a passage from not-having to having? Or from having in a lesser degree to having in a higher degree, as for quantity and certain qualities? Here, the noticeable difference ceases, to become rather a simila-

rity. It is no longer a case of substitution, but rather of acquisition and perfection. Inanimate beings, from their inception, have the full measure of their perfection. But animate beings, and particularly man, are only started on the road to their perfection. They must work it out by themselves by actuating their potentialities. Not substantial - one cannot be more or less a man, except metaphorically - but accidental. And so it is with knowledge. Both, accidental perfections and knowledge, are ordained to the higher perfection of the being.

But if there is similarity in this respect, the essential difference forever remains. The accidents are received subjectively and perfect in the natural order. Knowledge is received objectively and perfects only in the intentional order.

"Quod cognitum habeat esse intentionale in cognoscente; et quod in nulla natura possunt adeo elevari materia et forma, subjectum et accidens, ut unum sit idem alteri, salvis rationibus eorum, ut de cognoscente et cognito comperimus" (Cajetan. In I.14.1.IV)

At the root of this intentional information, of course, lies the immateriality of the reception. In knowledge, forms must be received immaterially, even in sensitive knowledge.

"Et per hunc modum, sensus recipit formam sine materia, 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". (In II De Anima. Lect. 24.553)

But the investigation of that aspect must be left to a later chapter. There remains another important difference between knowledge and subjective reception.

3. Passive and active aspects of knowledge.

What we have said so far is not quite sufficient for the complete understanding of knowledge. Some forms are received subjectively, and then we have an added subjective perfection in the natural order. Other forms are received objectively, and then we have knowledge, or a new perfection in the intentional order. But the mere possession of a perfection in the intentional order is not actual knowledge. We have two kinds of knowledge: habitual and actual. Everyone has a good stock of habitual knowledge of which he perhaps rarely if ever makes use. But to be actually knowing something is more. For the previous, habitual knowledge, it is enough that we possess intentionally the forms of the objects known. That gives us a passive aspect of knowledge. But actual knowledge is not only a passive reception, even intentionally. It is also an active vital operation. It does not consist in merely being intentionally informed by the object known, but in active-

ly "tending" to the object. These two aspects must be considered more in detail.

The passive aspect of knowledge is expressed in the words, "Intelligere est quoddam pati". (In III De Anima. Lect. VII.675) Knowledge is, somehow, a passion, a reception. Not, however, in the strict sense, but only insofar as there is a passage involved from potency to act.

"Tertio, dicitur aliquis pati communiter ex hoc solo quod id quod est in potentia ad aliquid, recipit illud ad quod erat in potentia, absque hoc quod aliquid abjiciatur; secundum quem modum omne quod exit de potentia in actum potest dici pati, etiam cum perficitur. Et sic intelligere nostrum est pati". (I.79.2)

"In proposito, pati in communi nihil aliud importat nisi recipere perfectionem ad quam erat in potentia; et in speciali, intellectum pati nihil aliud est quam recipere intelligibile ad quod erat in potentia". (Cajetan. In I.79.2.IV.)

Consequently, it is not said essentially of knowledge, but only accidentally. Should there be involved no passage from potency to act, then knowledge cannot be termed a "pati".

"In littera, infertur intelligere esse pati, non ex eo quod intellectus est in potentia, sed ex eo quod est in potentia separata ab actu". (Ibid.)

"Est igitur intelligere nostrum pati causaliter, et hoc per se. Angelicum vero non proprie et causaliter pati; quia congenitur

est angelis intelligibile, nec transfertur eorum intellectus de potentia ad actum primum". (Ibid.XV)

But even if there is no passage from potency to act, as in angels, and even though thereby, angelic knowledge may not be said to be "quoddam pati", we may still distinguish in angelic knowledge a passive knowledge in the sense of knowledge not being actually used. For they too have habitual and actual knowledge.

"Non enim omnia quae naturali cognitione cognoscit, semper actu considerat". (I.58.1)

Actual knowledge adds something to habitual knowledge, and that something we must now investigate.

If our knowledge must be termed passive in the way we have explained, much more so must it be said active. If the passive aspect is well known, perhaps the active aspect of knowledge is too frequently ignored. (6) Though St.Thomas perhaps more frequently refers to the intellect as a passive power, he nevertheless often terms it an active power. The doctrines must complete each other. As a matter of fact, St.Thomas distinguishes immanent from transient operations. Knowledge is an immanent action, otherwise called an operation, the highest operation of man, and in which, consequently, his ultimate and perfect happiness must lie.

"Actus autem intelligendi formaliter non est

repraesentatio, sed operatio et tendentia ad objectum". (J.S.T. Logica. II.22.4.713a1. See also Philosophia Naturalis IV.1, 106a18. And S. Thomas, De Veritate 8.6 and 14.3; I Contra Gentiles, 100)

Understanding actual knowledge as such explains how it differs from habitual knowledge. We must not, however, understand this operation as a "Motus" in the strict sense.

"Cum intelligere non sit actus entis in potentia, sed perfecti, animam intelligere, proprie loquendo, nihil aliud est quam propriam operationem exercere". (Cajetan. In I.79.2.XXI)

"Intelligere ergo non est formaliter pati; quamvis, proprie loquendo, non sit etiam formaliter agere, sed potius active passive-que operari". (Ibid.XX)

We must rightly understand, also, how the intellect can be said to operate. The intellect is active. It operates, cooperates in the act of intellection, and is not purely passive.

"Similiter est diversitas ex parte patientium. Quoddam enim est patiens quod in nullo cooperatur agenti; sicut lapis cum sursum projicitur, vel lignum cum ex eo fit scamnum. Quoddam vero patiens est quod cooperatur agenti; sicut lapis cum deorsum projicitur, et corpus hominis cum sanatur per artem. --- Intellectus enim possibilis comparatur ad res quarum notitiam recipit, sicut patiens quod cooperatur agenti". (Quodlibetum VIII.2.3)

The intellect, then, is not only passive, but actively cooperates. But the examples chosen to illustrate

patients that cooperate might lead to error. The stone is sufficiently in act to be able to fall of itself; the human body, to heal itself. But the intellect of itself is not in act but potential. Since "Agere sequitur esse", it must first be in act by the received form before it can operate. It will be in virtue of the form received that the intellect will know; not the intellect, but the informed intellect will actively know. It is in the same way - in virtue of the substantial form received - that prime matter can be said to act, though it never cooperates. It is not an operation of either principle, but of the composite.

"Sed intelligens et intellectum, prout ex eis est effectum unum quid, quod est intellectus in actu, sunt unum principium hujus actus qui est intelligere". (De Veritate VIII.6)

"Quia intellectus secundum se est in genere potentiae passivae, non habet ex se aliquam agendi rationem. --- Ex hoc vero quod intellectus fit actu ipsum intelligibile in actu, acquirit quamdam agendi rationem. --- Sequitur quod hoc totum, scilicet intellectus in actu, primo, et non ratione partis, scilicet intellectus, recipiat intellectionem". (Cajetan. In I.79.2.XIX)

With these few notions, we should be able to better understand how actual differs from merely habitual, or purely passive, knowledge. (7)

4. Why "Fieri" and not "Esse".

We might wonder why the definition of knowledge is given of knowledge in the state of becoming, rather than in the state of being. In other words, why it is described as "Fieri aliud inquantum aliud", rather than "Esse aliud inquantum aliud". The author has found no clue to an explanation, neither in St. Thomas nor in the commentators. Yet, there must be some explanation. Unless we are defining changes - which are all "Fieri"'s - we should not include in the definition that which is merely a condition of the object to be defined, much less, make it a quasi-genus in the definition. Man is not defined "Fieri animal rationale". And knowledge is not a change: the transition from potency to act is only a prerequisite for some knowledge.

"Or, "fieri", devenir, signifie le passage de la puissance à l'acte. Mais la connaissance ne consiste pas dans ce passage, puisqu'elle est "actus perfecti". (Charles DeKoninck. Cours de Méthodologie Scientifique. 1941-1942. p. 17b)

Two explanations can be given. The first is that the definition would apply only to man's knowledge, not to knowledge as such. Our knowledge is necessarily a "learning".

"St. Thomas n'emploie pas cette expression comme définition de la connaissance comme telle. Il parle de la connaissance humaine. Or, nous

passons de l'ignorance à la connaissance, et d'une connaissance à l'autre. Notre connaissance proprement dite est précédée d'un certain devenir. Bien que ce devenir ne soit que préalable à la connaissance, il n'en est pas moins un devenir pour la connaissance. (Ibid.)

But a second explanation makes it possible to apply the definition to all knowledge as such, even to God's knowledge. In this case, "fieri" can evidently no longer imply transition from potency to act. What it would imply would be the dynamic aspect of knowledge as opposed to a purely passive being.

"Au lieu de signifier le passage à la connaissance, elle indiquerait plutôt, soit la connaissance comme action, soit comme égression vitale, ou, plus proprement, comme union opérative et état de tendance actuelle et achevée vers l'objet possédé". (Ibid.)

We need not stress the active, dynamic aspect of knowledge, since we have just considered it. Because of that aspect, then, knowledge will be considered as a tendency to the object.

"Actus intelligendi unit objectum per modum operationis tendentis in illud". (J.S.T. Logica II.22.4, 713b36)

"Et ideo non est unio repraesentativa sed operativa seu per modum actus secundi, non ut contivens, sed ut tendens ad objectum". (Ibid. 714a7)

For a similar reason, forms which depend on their efficient causes not only as regards their "fieri" but also as regards

their "esse" will continue to be said "in fieri", even after all change from potency to act has ceased, which St. Thomas exemplifies in the dependance of light on the luminous body:

"Quaedam vero producuntur in materia et secundum imperfectam speciem et secundum imperfectum esse, sicut lumen in aere a corpore lucido. --- Et ideo esse eorum non manet cessante actione agentium. Hujusmodi ergo, propter imperfectionem sui esse, dicuntur esse in fieri". De Potentia. 5.1 ad 6. See also I.104.1; De Potentia 5.2; Quodlibetum IV.6.9)

There is no "fieri" after the initial moment. But the imperfection of the being requires a continual influx of causality: there is an active, dynamic aspect to light. There is a similar active, dynamic aspect in actual knowledge. It is seen to be a continual "Becoming" of the object known by a continued influx of causality from its efficient cause.

"Neque cognitio perdurat nisi sub jugi influxu subjecti cognoscentis". (Gredt. Elementa Philosophiae. Thesis 34.465.3)

Since such is the case, knowledge is seen to be a continual "Becoming" of the object known, not a simple "Being", which we might be tempted to conceive as static and without any continued causality.

5. Species as intentions and species "ut res".

Need we add that a perfection in the intentional order does not exclude but rather necessarily requires a perfection in the natural order also? The intentional is not subsistent: it is vested in an entitative reality. An ambassador is not purely an ambassador: he is not only a representation. There must be a man who represents. And so it is with knowledge. When John knows a tree, he is not only perfected objectively by the intentional form of treeness. He must ipso facto also be subjectively perfected by an accidental form, by an entity. A painting subjectively is a wooden frame, some canvas, and a certain amount of paint of different colors. Objectively, it is a sunset in Hawaii. Knowledge subjectively is a new entity informing the cognitive faculty. Objectively, it is the thing known.

"Forma enim, intentio, seu species visibilis, non in quantum accidens, sed in quantum visibile transiens in visum, specificat: sed quia hoc non patitur talis natura sensibilis nisi per intentionem esse, ideo, gratia materiae, concurrunt accidens". (Cajetan. In I.14.1.IV)

The necessity of carefully distinguishing the two aspects of knowledge, to avoid misunderstandings, is evident.

6. "Anima quodammodo omnia".

Before passing on to the conditions of knowledge, it will be useful to make a last remark on the definition. It regards the phrase, "Anima quodammodo omnia". (Aristotle. III De Anime, 8; And St.Thomas, ibi, Lect. XIII) From what we have seen, we can now readily understand how the soul can be called "all things". "Somehow" implies two important limitations. First of all, intentionally, or objectively, but not subjectively and in the natural order, as seen above. Secondly, only potentially, not actually. God alone, who knows all things by the unique similitude of His essence, can have the perfections of all things not only entitatively but also intentionally. All created intellects, because they must know by a multitude of species, will be limited in their actual intentional being to what only one species can represent.

"Et hujus ratio est, quia impossibile est idem subjectum perfici simul pluribus formis unius generis et diversarum specierum Omnes autem species intelligibiles sunt unius generis....." (I.85.4)

Of course, between pure potentiality and actual knowledge, we have a middle: habitual knowledge. By means of these intellectual habits, we perfect ourselves more and more, though an element of potentiality remains.

And even there, man in the present state is subject to important limitations:

"Intellectus noster non est possibilis omnia fieri nisi quae intellectus agens est potens facere: sed hic non est potens facere omnia simpliciter cognoscibilia, sed tantum materialia". (Cajetan. In I.79.2.XXII) (8) ✓

But if it is connatural to man in the present state to know only material objects - and he has that therefore as the proportionate object of his intellect - yet, this proportionate object is not the adequate object of intellect as such. Hence the possibility of beatific vision, the ultimate perfection of man.

"Anima data est homini loco omnium formarum, ut sit homo quodammodo totum ens, inquantum secundum animam est quodammodo omnia, prout ejus anima est receptiva omnium formarum". In III De Anima Lect. XIII.790)

"Et ideo in III De Anima dicitur animam esse quodammodo omnia, quia nata est omnia cognoscere. Et secundum hunc modum possibile est ut in una re totius universi perfectio existat. Unde haec est ultima perfectio ad quam anima potest pervenire, secundum philosophos, ut in ea describatur totus ordo universi, et causarum ejus; in quo etiam finem ultimum hominis posuerunt, qui secundum nos erit in visione Dei". (De Veritate II.2)

7. Conditions of knowledge.

From what we have seen regarding the nature of knowledge, we can readily deduce some necessary con-

ditions. The first is that there must be a union of the knower and the known. From what we have seen before, we know that there is one union, intentional, that is not a condition, but the very essence of knowledge.

"Cognitio fit secundum quod cognitum recipitur in cognoscente".

"Ipsa cognitio fit trahendo objectum ad se, et assimilando ipsi potentiam cognoscentem".
(J.S.T. Cursus Theologicus. XIV.8)

But previous to this union which is of the very essence of knowledge, another union is prerequired in the entitative, even at times in the intentional, order. That, from the point of view of causality, since

"ex objecto et potentia paritur notitia: et non sufficit concursus virtutis, sed etiam objecti". (Ibid.)

The object, as well as the faculty, is a prerequired cause of knowledge. From the point of view of causality then, there must be a union between knower and known. If the known is not present by identity or inhesion, then it must be present by a similitude.

On the other hand, knowledge, being an immanent operation, must also have its terminus - the object known - within itself.

"Objectum intellectus oportet esse actu in intelligente, ad hoc ut intelligat. --- Probatur ex differentia inter operationem transeuntem et immanentem: quia ista intus habet terminum". (Cajetan. In I.14.2.I)

From the point of view of the terminus of the action, then, the object must also be within the knower. If the known is immediately present, as in the Beatific Vision, then the known can serve as both, cause and terminus. But if it be through the mediation of species, then two species are required: the impressed species, from the point of view of efficient causality; and the expressed species, as terminus of the act. From the point of view of the terminus of the act, there will always be a distinction between knower and known for creatures. Only in God can there be identity here. In experimental sense knowledge, the object itself performs the role of terminus.

But consequent on this essential condition, there comes another equally important. Since there must be a union, there must consequently be a similar mode of existence in the reception. "Quidquid recipitur, ad modum recipientis recipitur". Homely comparisons may be made. A pail, containing after the manner of receiving of a pail, may receive water or milk. But we cannot have a pailful of electricity. Nor a pailful of momentum, virtue, or knowledge. There must be a reciprocal adaptation between receiver and received. But these comparisons are only to illustrate the real application of the principle: receiver and received must have the same mode of being. This, from the point of view of materiality and immateriality. But the development

of this must be left to subsequent chapters. For the moment, the general principle must suffice.

8. Speculative and practical knowledge.

Before concluding this introductory chapter, we must briefly recall the important distinction between speculative and practical knowledge. This, too, will be all-important in the solution of problems that will arise. Briefly, speculative and practical knowledge differ by their end. Speculative is ordained to knowledge; practical, to action. God's knowledge of creatures will be a practical knowledge, causing and measuring creatures ("Res mensuratur ab intellectu"). But His knowledge of His own essence will be purely speculative. And even if we consider His knowledge of creatures, that knowledge can also be speculative, as we will see later on, if we consider it merely as a principle of knowledge, and not as a principle of being. But in our case, knowledge of natural beings does not cause them but is rather caused by them ("Intellectus mensuratur a re"):

"Nos non possumus facere res naturales, sed solum de eis scientiam habere". (In II Phys. V.1)

We have toward them only a speculative knowledge. Practical knowledge will be ordained either to "agere" or to "facere". Prudence is the "recta ratio agibilium" and art, "recta ratio factibilium". Though we are more familiar with speculative knowledge, we are also familiar with speculative knowledge, we are also familiar with the knowledge of art, knowledge which causes the thing and in which, consequently, the truth of the thing depends on knowledge. Such knowledge might rather be called a plan of work, as the architect's conception of the building to be erected. This knowledge, consequently, will vary with the power of the knower as an efficient cause. We cannot have a practical knowledge of natural beings, since that means to be able to create them. Our knowledge of natural things is only speculative. But since our causality extends itself to artificial things, so will our practical knowledge. That is why we say "Ars imitatur naturam". We produce works of art by acting through our practical intellect, just as God produces natural beings by acting through His practical intellect. Similarity of principles will give similarity of operations and of effects.

"Ars imitatur naturam. Cujus ratio est quia sicut se habent principia ad invicem, ita proportionaliter se habent operationes et

effectus. Principium autem eorum quae secundum artem fiunt est intellectus humanus, qui secundum similitudinem quandam derivatur ab intellectu divino, qui est principium rerum naturalium". (In I Politicorum. Prooemium.)

These general notions we have seen regarding matter and knowledge should suffice by way of introduction to the questions to be treated in succeeding chapters. As was stated in the beginning, the intention was to presuppose, rather than to develop. Also problems have necessarily been raised which await solution. It is the aim of succeeding chapters to delve into some of those problems. It is hoped that what follows, by showing the relations between matter and knowledge, will consequently give us a more penetrating understanding of them individually, the understanding of which we have barely begun in the first two chapters.

Chapter III. THE KNOWABILITY OF MATTER "SECUNDUM SE".

1. Matter : Various aspects and various problems.

Matter is more generally mentioned as an impediment to knowledge, due to its nature of pure potentiality. And rightly so. However, this aspect of matter with reference to knowledge must not make us neglect the other and more fundamental aspect: matter is also an essential condition of man's knowledge. In the following pages, we will attempt to study matter from both points of view.

In considering matter first of all as an obstacle to knowledge, we must clearly distinguish two other aspects of matter. Matter may be considered first of all as one of two distinct principles intrinsically constitutive of mobile being. But if such a being is to be an ens-per-se, it is essential that matter should be pure potentiality. However, "Nihil cognoscitur in quantum est in potentia, sed solum in quantum est actu". We immediately see then how the pure potentiality

of matter raises the problem of the nature of its knowability and of the various modes according to which it may be known due to the nature of the intellects that know it. We will begin with the consideration of these problems raised by the first aspect of matter.

In the following chapter, we will deal with the second aspect of matter as regards knowledge. The object of knowledge considered will no longer be the distinct principle, prime matter, but beings constituted of matter. This matter will be considered not so much from the point of view of its pure potentiality, but rather as a principle of subjectivity existing in beings. This will raise the question regarding the consequences of matter, as a subjective principle, on the knowability and knowledge of beings so constituted. In that case, the principle considered will be the other well known adage: "Unumquodque cognoscitur (et cognoscit) in quantum est immateriale".

We take up now the consideration of the first aspect of matter: the knowability of prime matter as a distinct - and purely potential - principle of corporeal beings. Three questions might be raised in this consideration. First of all, as regards the fact. But the answer is so obvious, it is so evident that we, and a fortiori

God, do know Prime Matter, at least in some way, as a distinct constitutive principle of mobile beings, that we need not consider it any further. The problem does not concern the fact that we do know matter, but rather the nature of matter's knowability, and the modes according to which it will be known by different intellects. We will therefore turn all our attention to those problems.

But since the nature of matter's knowability depends not only on the nature of matter itself, but also on the modes of its being known, we must first see how intellects may attain matter. Once this is done, we can more easily determine the nature of matter's knowability.

2. How does intellect know prime matter?

The question of the manner in which intellect attains prime matter is not a difficult problem if a problem at all. But it is of supreme importance in the solution of the problem to come, in determining the nature of the knowability of prime matter. The question is purposely placed

with regard to "intellect" in general, for in the solution we may distinguish two possibilities: intellect whose knowledge is posterior to its object; and intellect which is prior to its object.

We may distinguish two different ways by which matter can be known: directly, or by analogy. We of course take those two terms here as in opposition. And we purposely avoid the more obscure term "analogically". When we say "by analogy", we mean that the object is known through its resemblance with another object of knowledge. When knowledge is representative of an object without passing through the medium of such a resemblance, then we say that it attains its object directly. (9)

We may now consider the two possibilities mentioned above: the intellect which is posterior to its object, and that which is prior. We will begin with the consideration of the manner in which we ourselves actually know matter. We will show that since our knowledge is posterior to its object, we do not know matter directly, but only by analogy.

All our knowledge is derived from the senses: "Nihil in intellectu nisi prius fuerit in sensu". We depend entirely on the object's exer-

cising itself on our senses. However, "Nihil agit inquantum est potentia, sed solum inquantum est actu". It will then be by their acts that corporeal beings will act on our senses. But the act of a corporeal being is its form, whereas its matter is pure potentiality. It will then be by their forms that corporeal beings will act on our senses: matter, pure potentiality, will be incapable of all activity. It follows then that we cannot have a direct knowledge of prime matter.

This is a reason always mentioned by St. Thomas when dealing with the knowledge of singular material objects. Since this knowledge depends on how an intellect knows, St. Thomas first shows that all direct knowledge of prime matter must be excluded as far as man is concerned. The reason given is always the inability of matter to act on the senses. It will be found especially in parallel passages of the De Veritate and the Summa Theologica. (10)

To select a few examples, we will consider first of all De Veritate 2.5: "Utrum Deus singularia cognoscat?" After showing how God knows matter directly, St. Thomas shows why we cannot have such direct knowledge of it:

"Illa enim (similitudo) quae est in intellectu nostro est accepta a re secundum quod res agit in intellectum nostrum, agendo per prius in sensu; materia autem, propter debilitatem sui esse, quia est ens in potentia tantum, non potest esse principium agendi; et ideo res quae agit in animam nostram, agit solum per formam; unde similitudo rei..... est tantum similitudo formae".

And when St.Thomas speaks of angelic knowledge, he gives the same reason why we cannot know matter directly:

"Formae enim quae sunt in intellectu speculativo fiunt in nobis quodammodo ex activitate ipsarum rerum. Omnis autem actio est a forma; et ideo, quantum est ex virtute agentis, non fit aliqua forma a rebus in nobis nisi quae sit similitudo formae". (De Veritate 8.11)

And finally, when explaining human knowledge, in 10.4, he again repeats the same reason:

"In mente enim accipiente scientiam a rebus, formae existunt per quandam actionem rerum in animam; omnis autem actio est per formam; unde formae quae sunt in mente nostra primo et principaliter respiciunt res extra animam existentes quantum ad formas earum".

Once we have established what is proper to the nature of matter, the reason given is clear: being pure potentiality, matter can exercise no direct causality with respect to knowledge. It will therefore be impossible for an intellect to attain

matter directly, if it depends on the activity of the known. But we have precisely in these last words the whole explanation of the argument: it does not hold for intellect as such, but only for intellect which is posterior to and dependent on the thing known. True, the fact that prime matter is incapable of acting on anything is based on the very nature of prime matter. But the fact that our intellect depends on the activity of the known is not based on the nature of intellect as such. It is an accidental condition referred to by St. Thomas by the words "in mente accipiente scientiam a rebus" (10.4). Such a condition, of course, is not essential to intellect as such, as we will see later in speaking of the knowledge of separated substances. Since the reason given holds only for an intellect which receives its knowledge from things, we cannot conclude that direct knowledge of matter is impossible for intellect as such.

But if man may not know prime matter directly, another avenue is open to him: analogy. How this is realized is well shown by St. Thomas in his commentary on Aristotle's I Physics:

"Dicit quod natura quae primo subiicitur mutationi, id est materia prima, non potest sciri per seipsam, cum omne quod

cognoscitur, cognoscatur per suam formam; materia autem prima consideratur subjecta omni formae. Sed scitur secundum analogiam, idest secundum proportionem. Sic enim cognoscimus quod lignum est aliquid praeter formam scamni et lecti, quia quandoque est sub una forma, quandoque sub alia. Cum igitur videamus hoc quod est aer quandoque ✓ fieri aquam, oportet dicere quod aliquid existens sub forma aeris, quandoque sit sub forma aquae; et sic illud est aliquid praeter formam aquae et praeter formam aeris, sicut lignum est aliquid praeter formam scamni et praeter formam lecti. Quod igitur sic se habet ad ipsas substantias naturales, sicut se habet aes ad statuam et lignum ad lectum, et quodlibet materiale et informe ad formam, hoc dicimus esse materiam primam" / (In I Phys. 13.9)

But if such is the case for man, it is altogether different in the case of intellect whose knowledge is prior to the thing known. We know that God must have direct knowledge of matter, since He is the Artisan of the whole being as to both, its form and its matter. The difference between His knowledge of natural beings and our knowledge of them is of supreme importance for this particular problem.

Our knowledge, dependent on the activity of the known, will be incapable of directly attain- ✓ ing inactive prime matter. But the inactivity of prime matter is no reason why God should be prevented from knowing prime matter directly, since His knowledge does not depend on the activity of the object.

"Illa quae habent difficiens esse, secundum +

hoc deficient a cognoscibilitate intellectus nostri, quod deficient a ratione agendi; non autem ita est de intellectu divino, qui non accipit scientiam a rebus". (De Ver. 2.5 ad 12)

On the contrary, His knowledge of prime matter will most certainly be direct, since He is the cause of prime matter.

Now God's knowledge is the cause of things. All created beings are products of divine art as to all that they are. And any work of art, as such, must preexist in the mind of the artisan as an idea. Hence, all ideas which are principles of a thing are also necessarily principles of the knowledge of that thing:

"Quaecumque sunt principia essendi, sunt etiam principia cognoscendi". (De Ver. 3.3 ad 7)

And such knowledge will necessarily be direct: just as a carpenter must have direct knowledge of the wood with which he is to make a table, insofar as the wood is matter of the table.

"Sed formae rerum in mente divina existentes sunt, ex quibus fluit esse rerum, quod est commune formae et materiae; unde formae illae respiciunt et formam et materiam immediate, et non unum per alterum". (De Ver. 10.4) (11)

It is easy to see then that God's knowledge will

reach prime matter in a manner wholly different from the manner our intellect has of reaching it. Far from knowing prime matter by analogy, God will have a direct knowledge of it which will furthermore be the immediate principle of whatever matter is.

We conclude that angels too will know matter directly because, although they do not cause matter, they are not dependent for their knowledge on the activity of the thing known, but rather on the activity of the Creative Cause which is prior to the thing in itself. If angels receive knowledge of things from that source which is itself independent of all causality of those things, they too therefore may participate in the direct knowledge of that source.

And such is the case. God himself immediately forms the intelligible species in the angelic intellect, which species are derived from His own "species rerum factiva", and not from the things in themselves. And that is the reason why angels can have direct knowledge of material singulars.

"Ad intellectum autem substantiae separatae perveniunt species intelli-

gibiles quasi per viam compositionis: habet enim species intelligibiles ex assimilatione sui ad primam intelligibilem speciem intellectus divini, quae quidem non est a rebus abstracta, sed rerum factiva. Est autem factiva non solum formae, sed materiae, quae est individuationis principium. Species igitur intellectus substantiae separatae totam rem respiciunt, et non solum principia speciei, sed etiam principia individuante". (II Contra Gentes 100)

And even though the angels cannot participate in God's creative knowledge as it is creative, they can participate speculatively in that practical knowledge which is as such prior to things.

"Species quae recipiuntur in mente angelica, sunt solum principia cognoscendi, et non sunt factivae, sed exemplatae a factivis". (Quodlibetum 7.3)

"Quamvis formae intelligibiles non sint creatrices rerum, sunt tamen similes formis creatricibus, non quidem in virtute creandi, sed in virtute repraesentandi res creatas. Aliquis enim artifex potest tradere artem aliquid faciendi alicui, cui tamen non adest virtus ut perficiat illud". (Ibid. ad 8)

Hence, the angelic intellect will also be free from all that follows from being dependent on the thing in itself.

Such then are the various ways intellect has of knowing prime matter. Man, through analogy; God, and intellects capable of receiving species

from God, directly. We must now consider our third question: What precisely is the nature of the knowability of prime matter?

3. The role of form in the knowledge of matter.

Our preceding conclusion dealt with universal and particular matter. A genuine problem remains now in determining the role played by form in the knowledge of matter. Let us first of all consider texts of St.Thomas and the attitudes of Cajetan and John of St.Thomas in order to grasp the difficulty that lies ahead.

The texts of St.Thomas which best illustrate the difficulty are to be found one in De Veritate, 3.5; the other, in the Summa Theologica, I.15.3 ad 3. A juxtaposition of the two texts will reveal the apparent incongruity. In the De Veritate, we read: "Et sic nihil prohibet materiae primae etiam secundum se ideam esse". While in the Summa Theologica, we find: "Materia secundum se neque esse habet, neque cognoscibilis est". The apparent opposition is sufficient to justify investigation.

And that there be a genuine problem may easily be seen by considering the attitudes of the great commentators. For Cajetan, it is clearly a case of contradiction: St.Thomas in the Summa is correcting his previously held opinion in the De Veritate. Therefore, no time is to be wasted imagining interpretations.

"In responsione ad tertium, adverte quod hic S.Thomas retractat dicta in de Veritate III.5, et in I Sent. d.36 q.2 a.3. (12) de idea materiae primae. Nec oportet fingere glossas: quoniam medius terminus hic assumptus, scilicet quia secundum se non est cognoscibilis, expresse alibi dicta elidit, ut patet intuenti". (In I. 15.3, IV)

According to Cajetan then, St.Thomas would have found the problem difficult to the point of finding it necessary to retract his previous position. We may note in passing that if such an authority as Cajetan believed that possible for St.Thomas himself, the question is certainly not to be treated lightly and is deserving of investigation.

The problem is further seen to be difficult by the fact that John of St.Thomas in no way agrees with Cajetan:

"Respondetur Cajetanum in praesenti liquide tenere quod (S.Thomas) mutavit sententiam". (Cursus Theologicus. XXI.4.31)

On the contrary, John of St. Thomas will explain the apparent contradiction by distinguishing the different meanings of the expression "materia secundum se", as will be brought out later.

But before giving the solution of the problem, we must consider more closely the term "idea". It will be noticed that the texts of St. Thomas which raise the difficulty are taken from parallel treatises on divine ideas: De Veritate III.3, and Summa Theologica, I.15. To situate and solve the difficulty, we should first see the main divisions of ideas, especially from the point of view of practical and speculative knowledge. Another passage to be taken into account is that of I.Sent. D.36, q.2, aa. 1-3. Let us then examine the main divisions in the light of these three passages, and thus situate the difficulty more clearly and facilitate the solution. We insert a table to facilitate comparisons. (p.62)

The divisions most relevant to our problem are most comprehensively treated in De Veritate III.3: "Utrum ad practicam vel speculativam cognitionem spectent ipsae ideae?" First of all, practical and speculative knowledge:

Divine Knowledge and Divine Ideas

- I. Actually (completely) practical Idea in strict sense, Exemplar.
- II. Virtually (formally) practical " "
- III. Formally speculative, but radically practical ("Operabilium").... Idea in broad sense, "ratio vel similitudo".
- IV. Purely speculative ("Non-operabilium") :
 - A. Of realities inoperable secundum se:
 - 1. Which are quiddities (inseparable accidents, generic and specific notions) " "
 - 2. Which are not quiddities:
 - a. Substantial material forms.. " "
 - b. Prime matter " "
 - B. Of non-being, privations..... No idea.

"Aliquacognitio practica dicitur ex ordine ad opus..... Quando vero nullo modo est ad actum ordinabilis cognitio, tunc est semper speculativa".

In turn, practical knowledge is either actually (completely) or only virtually (formally) so:

"Quandoque in actu, quando scilicet ad aliquod opus actu ordinatur.....Quandoque vero est quidem ordinabilis cognitio ad actum, non tamen actu ordinatur".

With regard to this latter, we may note in passing that it is in some way speculative:

"Ratio illa procedit de cognitione illa quae est practica virtute, non actu; quam nihil prohibet aliquo modo speculativam dici, secundum quod recedit ab operatione secundum actum". (ad 2)

In the same way, there are two kinds of speculative knowledge: of things which can be produced by the knowledge of the knower (and which may therefore be called radically practical), and of things which cannot:

"Uno modo, quando cognitio est de rebus illis quae non sunt natae produci per scientiam cognoscentis..... quandoque vero res cognita est quidem operabilis per scientiam, tamen non consideratur ut est operabilis".

With regard to these latter two modes, we notice that their opposition and distinction

are not based on the mere "operability" of the thing known, but on its operability for such and such a knower, "per scientiam cognoscentis".

Some things of course, such as inseparable accidents, generic and specific notions, prime matter, are inoperable of their very nature because they cannot have a separate existence. Of such things, God does not even have a knowledge which we may call radically practical. But other things, such as natural beings, though inoperable for man, are operable for God. Of these, man's knowledge can be only purely speculative ("speculativa tantum"), while God's is at least radically practical.

"Sciendum est quod aliqua scientia potest dici speculativa tripliciter. 1o Ex parte rerum scitarum, quae non sunt operabiles a sciente; sicut est scientia hominis de rebus naturalibus Scientia igitur quae est speculativa ratione ipsius rei scitae, est speculativa tantum". (I.14.16)

Divine knowledge of things will be according to the four modes.

"Et secundum hos quatuor modos cognitio divina se habet ad res".

All things which at any time exist are known through actually (completely) practical knowledge:

"Quaedam ergo cognoscit ordinando ea ad hoc quod sint secundum quodcumque tempus, et horum habet practicam cognitionem in actu".

If He considers possible beings by a knowledge ordainable to act, His knowledge is virtually (formally) practical; but if He considers them without reference to their "operabilitas", then He has formally speculative knowledge of possibles, or of "operabilia", - a knowledge which is only radically practical.

But God also knows many things which cannot exist as such by themselves, e.g. generic and specific notions, inseparable accidents, prime matter. Of such, His knowledge is only speculative, not even radically practical. Taken in the given restricted sense, then, they are "non-operabilia". It is this purely speculative knowledge, we shall see, with which we will be mainly concerned. But before considering its more subtle subdivisions, we must first see the main divisions of ideas, and their coordination with the main divisions of practical and speculative knowledge.

We must first note that we should not consider ideas as coextensive with knowledge. Not all things knowable are capable of an idea, however broadly we may use the term.(13) We must re-

member that we speak of ideas in God as forms or patterns according to which He produces creatures.

"Et in hac significatione consuetum est nomen ideae accipi, ut idem sit idea quod forma quam aliquid imitatur". (De Ver. 3.1)

As a result, ideas may be considered as both: principles of knowledge and principles of being. ✓
But many things are known which have no being, e.g. privations, evil, negations. Though St. Thomas will certainly not deny God's knowledge of evil, he will deny any idea of evil:

"Cum similitudo attendatur secundum formam aliquo modo participatam, non potest malum similitudinem aliquam in Deo habere". (De Ver. 3.4)

We must then distinguish knowledge of things capable of their own proper idea; and knowledge of things, such as evil, knowable only by means of another idea: ✓

"A Deo cognoscitur (malum) per ideam boni oppositi". (ibid. ad 7)

As principles of being, ideas will more properly be called exemplars; as principles of knowledge, notions or similitudes:

"Ad utrumque se habet idea, prout in mente divina ponitur: et secundum quod est principium factionis rerum, exemplar

dici potest, et ad practicam cognitionem pertinet; secundum autem quod principium cognoscitivum est, proprie dicitur ratio et potest etiam ad scientiam speculativam pertinere". (I.15.3)

From De Veritate 3.3, we see that exemplar and idea in the strict sense are identical:

"Exemplar..... proprie loquendo, ad cognitionem pertinet quae est practica habitu vel virtute". (ad 3)

This knowledge, therefore, is at least virtually (formally) practical.

It will be noticed, however, that in the Summa, St.Thomas uses the term "exemplar" in a more restricted sense. In the De Veritate, he clearly uses it to include virtually (formally) practical knowledge. For he pursues the text quoted by saying:

"Non autem solum ad illam quae est actu practica: quia aliquid potest dici exemplar ex hoc quod ad ejus imitationem potest aliquid fieri, etiam si numquam fiat".

But in the Summa, he restricts it to actually (completely) practical knowledge alone:

"Eorum quae neque sunt, neque erunt, neque fuerunt, Deus non habet practicam cognitionem nisi in virtute tantum: unde respectu eorum non est idea in Deo secundum quod idea significat exemplar, sed solum secundum quod significat rationem". (I.15.3 ad 2)

This restriction however is of minor importance and need not be insisted on. No doctrinal consequences are involved.

Now since an idea which is principle of being is also necessarily a principle of knowledge, but not vice versa, we could, more properly speaking, say that all ideas are notions, but only some ideas are exemplars.

"Vel magis proprie dicamus quod idea respicit cognitionem practicam actu vel virtute; similitudo autem et ratio tam speculativam quam practicam". (De Ver. 3.3, in fine corporis)

Ideas then can be taken either in a strict or a wide sense. In the strict sense, they imply causation of beings, and therefore can be said of knowledge which is practical, either actually (completely) or virtually (formally):

"Si ergo loquamur de idea secundum propriam nominis rationem, sic non extendit se nisi ad illam scientiam secundum quam aliquid formari potest; et haec est cognitio actu practica, vel virtute tantum, quae etiam quodammodo speculativa est". (De Ver. 5.3)

Speculative knowledge, not being knowledge "secundum quam aliquid formari potest", should not be called an idea. However, if we wish to consider an idea in the broad sense, as a mere principle of knowledge, then we may also use the term even

for speculative knowledge.

"Sed tamen si ideam communiter appellemus similitudinem vel rationem, sic idea etiam ad speculativam cognitionem pure pertinere potest". (ibid.)

Since we have already seen that ideas in the strict sense, or exemplars, apply to both, actually and virtually practical knowledge, it remains to be seen to what kinds of speculative knowledge ideas in the broad sense apply. They will certainly not apply to negations, as we saw in the case of evil. If evil is known, as it certainly is, it will not be by a proper idea, but "per aliud", viz., by the opposite good.

"Ex hoc ipso quod malum non habet ideam in Deo, a Deo cognoscitur per ideam boni oppositi". (De Ver. 3.4 ad 7)

That case offers no special difficulty.

The term "idea" then, taken in the broad sense, will be used in reference to the kinds of speculative knowledge: that which is only radically practical, and that which is purely speculative. In the first group are all the "operabilia" when known by knowledge which is formally speculative. In the second, the non-operabilia such as generic and specific notions, etc.

"Si autem accipiamus ideam communiter pro similitudine vel ratione, sic cum diversa sit consideratio Socratis ut Socrates est, et ut homo est, et ut est animal, respondebunt ei plures ideae vel similitudines". (De Ver. 3.8 ad 2)

Enough has been said now to permit us to proceed immediately to a first conclusion: Of matter alone, without form, there can be no distinct practical idea in any way whatever. In other words, any distinct idea of matter alone, without form, could for the most be purely speculative. We do not of course deny that matter has a practical idea in God: matter exists, and therefore God must have a practical idea of it somehow or other. But we deny that matter alone, without form, can have a distinct practical idea.

The reason is evident: matter alone, i.e., without form, is absolutely incapable of coming into being, since it has of itself neither an essential nor an existential act. It will be noticed that the essential requirement for a distinct practical idea is that its object be capable of a distinct production. That is the reason evidently given by St. Thomas to exclude a strict idea of prime matter:

"Sed tamen, si proprie de idea loquamur, non potest poni quod materia prima per

se habeat ideam in Deo distinctam ab
idea formae vel compositi: quia idea
proprie dicta respicit rem secundum
quod est producibilis in esse;
materia autem non potest exire in
esse sine forma". (De Ver. 3.5)

Why are inseparable accidents incapable of a dis-
tinct idea? - Because they are capable of becoming
only with the subject:

"Quaedam enim sunt accidentia propria
ex principiis subjecti causata, quae
secundum esse numquam a suis subjectis
separantur; et hujusmodi una operatione
in esse producuntur cum suo subjecto;
unde cum idea, proprie loquendo, sit
forma rei operabilis inquantum hujus-
modi, non erit talium accidentium idea
distincta, sed subjecti cum omnibus
accidentibus ejus erit una idea". (De
Ver. 3.7)

And the same is true of genera:

"Genera non possunt habere ideam aliam
ab idea speciei secundum quod idea
significat exemplar, quia numquam genus
fit nisi in aliqua specie". (I.15.3, ad 4)

But all distinct complete beings are capable of
a distinct idea. And even separable accidents,
since they are capable of a distinct production:

"Quaedam vero sunt accidentia, quae non
sequuntur inseparabiliter suum subjectum,
nec ex ejus principiis dependent; et
taliam producuntur in esse alia operatione
praeter operationem qua producitur sub-
jectum..... et talium accidentium est in
Deo idea distincta ab idea subjecti".
(De Ver. 3.7)

Since what we have said concerned only ideas in the strict sense, and therefore only knowledge which is either actually (completely) or virtually (formally) practical, we must add a word concerning ideas in the wide sense. For, some such ideas, we said, though formally speculative, may nevertheless be radically practical. But these too we deny of prime matter without form. All ideas of matter taken thus must be purely speculative. And that, for the very reason we have given. For that reason was taken from the very nature of prime matter: its pure potentiality, which makes it absolutely incapable of existence without form, or of a distinct production. Matter without form is in the class of "non-operabilia".

After this first conclusion, we proceed to the more subtle distinction of purely speculative knowledge. One fact has already been established: of the objects known through purely speculative knowledge, some are capable of an idea (in the wide sense); others, viz. privations, are not. It is the previous group with which we must now deal: that of the purely speculative ideas.

Of these purely speculative ideas, we may distinguish two kinds: those whose object is

a quiddity, and those whose object is not a quiddity. For of things which cannot exist by themselves, some are nevertheless a determined quiddity. Among such we must enumerate inseparable accidents, generic and specific notions. But other things are not even quiddities: they are mere intrinsic principles of quiddities. Of these, we have two examples: substantial material forms, and prime matter.

That all the notions mentioned above are purely speculative ideas has been sufficiently established. Thus, neither matter nor material substantial forms are capable of a distinct practical idea:

"Idea proprie dicta respicit rem secundum quod est producibilis in esse; materia autem non potest exire in esse sine forma, nec e converso. Unde proprie idea non respondet materiae tantum, nec formae tantum;....." (De Ver. 3.5)

And the same reason clearly holds for the other notions mentioned.

It is the case of the distinct and purely speculative idea of prime matter that concerns us most. That is the crucial problem toward which we have been moving. The apparently conflic-

ting texts of St.Thomas, the different interpretations by Cajetan and John of St.Thomas, center on the meaning of that idea. How is the nature of the idea to be explained? How are we to understand the expression "materia secundum se"?

The context of the expression "materia secundum se" clearly indicates that it means "matter without form". Now, this may be taken in three distinct ways, which will give rise to three distinct conclusions. We will establish this and then consider the explanation of the various texts of St.Thomas, as well as of the positions of the commentators.

First of all, "secundum se", or "without form", may mean without form as a previously known medium of knowledge. In other words, directly, and not by analogy. In this sense, the conclusion is evident and has already been established: we cannot know matter secundum se, but God certainly can. In this first sense then, "secundum se" offers no difficulty: God can certainly know matter without this kind of mediation of form, which is proper to the human intellect informed by the things themselves.

In a second sense, matter "secundum se" may mean matter as to whatever reality it is in

its distinction and otherness from form. Matter is distinct from form, and this for a reason. Unlike privation, matter is a kind of positive reason apart from form. As a kind of reality, matter has its proper reason, has a kind of reason, and this real reason is other than that of form. Of this proper reason, we have a distinct idea in the sense that we have knowledge which represents matter, in a way, distinctly, that is, as being what is other than form. "Materia secundum se" then means matter as to whatever it is in its otherness and distinction from form. In this sense then, God certainly has a distinct idea of matter secundum se.

"Et sic nihil prohibet materiae primae etiam secundum se ideam esse". (De Ver. 3.5)

If there could not be such an idea of matter secundum se, matter could not be a reality distinct from form. And not only God, but we also have such distinct knowledge of prime matter. For whether the knowledge of matter is direct or by analogy, it is knowledge that attains matter in its otherness and distinction from form.

This case, it should be noted, is quite different from that of privation because, although privation too has its own otherness - and in this

sense it may also be called knowable secundum se - yet, it cannot, as we have seen above, have a distinct idea in any sense.

Thirdly, an idea of matter secundum se might also be taken to mean an idea of matter without order to form. It is in this sense that an idea of prime matter secundum se is rejected in the Summa, I.15.3 ad 2:

"Materia secundum se neque esse habet neque cognoscibilis est".

If we take "secundum se" in such a way, then our conclusion is a categorical denial of any distinct idea of matter secundum se: not only as regards our knowledge by analogy, but even as regards the direct knowledge of God. There can be absolutely no knowledge of matter secundum se, or without form, in this way.

We may distinguish a common and a proper reason why this is so. First, as regards the common reason, we call it common because it applies not only to prime matter, but also to many other objects of knowledge which cannot be known thus, "secundum se". The reason, briefly, is that matter is a relative, and no relative can be understood "secundum se" in this sense. This reason will be found exposed and exemplified in De Trinitate 5.3:

"Cum enim unaquaeque res sit intelligibilis secundum quod est actu, ut dicitur X Metaph., oportet quod ipsa natura, sive quidditas rei intelligatur vel secundum quod est actus quidam, sicut accidit de ipsis formis et substantiis simplicibus: vel secundum id quod est actus ejus, sicut substantiae compositae per formas suas: vel secundum id quod est ei loco actus, sicut in materia prima per habitudinem ad formam, et vacuum per privationem locati, et hoc est illud ex quo unaquaeque natura suam rationem sortitur. Quando ergo hoc per quod constituitur ratio naturae, per quod ipsa natura intelligitur, habet ordinem et dependentiam ad aliquid aliud, tunc constat quod natura illa sine illo alio intelligi non potest, sive sit conjuncta conjunctione illa qua pars jungitur toti, sicut pes non potest intelligi sine intellectu animalis, quia id a quo pes habet rationem pedis, dependet ab eo a quo animal est animal: sive etiam sit conjuncta per modum quo forma jungitur materiae, sicut pars compositi, vel accidens subjecto, sicut simum non potest intelligi sine naso: sive etiam sint secundum rem separata, sicut pater non potest intelligi sine intellectu filii, quamvis illae relationes inveniuntur in diversis rebus. Si vero unum ab altero non dependeat secundum id quod constituit rationem naturae, tunc unum potest ab altero abstrahi per intellectum ut sine eo intelligatur, non solum si sint separata secundum rem, ut homo et lapis, sed etiam si secundum rem conjuncta sint, sive ea conjunctione qua pars et totum jungitur, sicut littera potest intelligi sine syllaba, et animal sine pede, sed non e converso: sive etiam sint conjuncta per modum quo forma jungitur materiae, et accidens subjecto, sicut albedo potest intelligi sine homine, et e converso".

It is clear then, because of this common reason, that matter cannot be known "secundum se", without form, as entering into the very constitution of the knowability of matter. For the total being of matter is ordination to form. But a proper reason will show yet more clearly the absolute

impossibility of conceiving matter "secundum se", without form.

And this proper reason is none other than the proper nature of prime matter: the fact that all that it is is potentiality of form. Matter is purely "habitus ad formam"; as to all that it is, it is appetite of form. To grasp well what this nature of pure potentiality is makes any idea of matter secundum se in this sense inconceivable. When we say that matter is pure potentiality, we mean that to be matter is to be "ad formam". Hence, not only is matter "propter formam", but it is that "secundum hoc ipsum quod est".

We can now see that the two apparently contradictory passages of St. Thomas concerning the knowability of matter "secundum se", far from being actually contradictory, represent two mutually inclusive views of the same doctrine. Indeed, matter is other than form, and distinct from form. But this by no reason makes it knowable secundum se. For, the otherness of matter, known secundum se in the second sense (otherwise matter could not be a reality distinct from form) - this very otherness, this proper reason of matter, cannot be conceived without form for the simple

reason that its otherness, its very proper reason, is to be to form. Thus, its proper otherness includes "ordo ad formam". The "ratio" of matter is not an absolute "ratio". Matter has its "ratio materiae" in its "esse ad formam".

4. St. Thomas, Cajetan, and John of St. Thomas.

Before considering the apparently conflicting texts of St. Thomas, it might be well to consider an earlier text, I Sent. D.36 q.2 a.3, ad 2:

"Ad secundum dicendum, quod cum materia prima sit a Deo, oportet ideam ejus aliquam in Deo esse; et sicut attribuitur sibi esse, ita attribuitur sibi idea in Deo: quia omne esse in quantum perfectum est, exemplariter ductum est ab esse divino. Esse autem perfectum, materiae non convenit in se, sed solum secundum quod est in composito; in se vero habet esse imperfectum secundum ultimum gradum essendi, qui est esse in potentia; et ideo perfectam rationem ideae non habet nisi secundum quod est in composito, quia sic sibi a Deo esse perfectum confertur; in se vero considerata, habet in Deo imperfectam rationem ideae; hoc est dictu, quia essentia divina est imitabilis a composito secundum esse perfectum, a materia secundum esse imperfectum, sed a privatione nullo modo. Et ideo compositum, secundum rationem suae formae, habet perfecte ideam in Deo, materia vero imperfecte, sed privatio nullo modo".

In this text, St. Thomas shows that there can be no perfect idea of matter secundum se, but only an imperfect idea. His purpose is to exclude a perfect practical idea of matter without form. Just as matter is only a part of the composite, so can the practical idea of matter only be part of a perfect practical idea. The first part of the text from De Veritate, 3.5, expresses the very same doctrine as the Sentences:

"Nos autem ponimus materiam causatam esse a Deo; unde necesse est ponere quod aliquo modo sit ejus idea in Deo, cum quidquid ab ipso causatur, similitudinem ipsius utcumque retineat. Sed tamen, si proprie de idea loquamur, non potest poni quod materia prima per se habeat ideam in Deo distinctam ab idea formae vel compositi: quia idea proprie dicta respicit rem secundum quod est producibilis in esse; materia autem non potest exire in esse sine forma, nec e converso. Unde proprie idea non respondet materiae tantum, nec formae tantum; sed composito toti respondet una idea, quae est factiva totius et quantum ad formam et quantum ad materiam. Si autem large accipiamus ideam pro similitudine vel ratione, tunc illa possunt per se distinctam habere ideam quae possunt distincte considerari, quamvis separatim esse non possint; et sic nihil prohibet materiae primae etiam secundum se ideam esse".

From what St. Thomas says in the De Veritate, we may show that the perfect idea of the Sentences is none other than the "idea proprie dicta (quae) respicit rem secundum quod est producibilis in esse".

But what then is the "imperfect" idea of the Sentences? It is decidedly not the purely speculative idea of the second part of the text from De Veritate, although this latter is also, in the sense we have shown above, an imperfect idea, that is, imperfect with respect to the genus "idea" proper. The imperfect idea of the Sentences is a practical idea, it is precisely what John of St. Thomas explains in the Cursus Theologicus, XXI.4, #8:

"Materia prima si consideretur ut subjecta et subordinata formae, idealibilis est, sed ut contenta sub idea compositi, ut pars potentialis ejus, non autem ut distinctam ideam habens".

This however, as we have just shown, by no means excludes a distinct speculative idea of matter, which St. Thomas establishes in the second part of the text from De Veritate. If he shows that such a distinct speculative idea is possible of "materia secundum se", his purpose is certainly not to exclude the order that matter is to form, but rather to show that matter is distinctly knowable as to its otherness, as to its being non-form, which nevertheless engages form as that to which it is. "Illa possunt per se distinctam habere ideam quae possunt distincte considerari". Clear-

ly, "per se" is to be understood here in what we have called the second sense of "per se": the otherness of the thing known.

The third text, we saw, is the one which, according to Cajetan, contradicts the De Veritate:

"Materia secundum se neque esse habet, neque cognoscibilis est". (I.15.3 ad 3)

But from the explanations given above - which are furthermore in conformity with John of St. Thomas - the meaning should now be clear. St. Thomas here denies that matter is knowable in what we have given as the third sense of "secundum se".

Thus we see that there is perfect consistency in St. Thomas' teaching on the nature of the knowability of matter, which is in perfect agreement with his consistent doctrine on the very nature of matter itself. This we might have shown beforehand, since it must be held unlikely that tantus doctor should hold such a different opinion on a subject so important, without mentioning his change of mind, whereas, for matters of much lesser importance, he goes to the trouble of saying:

"Et hoc quidem mihi aliquando visum est. Sed diligentius considerans, magis videtur

dicendum quod....." (Quodlibetum VI. 11.19: "Utrum coelum empyreum habeat influentiam super alia corpora".)

We thus adhere fully to the position of John of St.Thomas, who resolves the apparent incongruity in the texts of St.Thomas along the lines we have followed. His explanation is found in the Cursus Theologicus, XXI.4, #31:

"Ideo respondetur quod sensus D.Thomae in utrisque locis non est contrarius, nec retractat in uno quod dicit in alio, quia procedit secundum diversas considerationes materiae: quando enim dicitur materia secundum se, ly 'secundum se', vel potest appellare ipsam entitatem materiae cum ordine quem includit ad formam, vel potest appellare statum materiae qui est privatio omnis formae. Et sub prima consideratione concedit D.Thomas materiae secundum se ideam in illis locis quae supra citantur; sub posteriori autem negat ideam materiae secundum se in aliis locis quae in probatione conclusionis citavimus: quia sub statu privationis materia non est producibilis, neque cognoscibilis ratione illius status. Et cum S.Thomas addit (in hoc articulo), quod neque potest cognosci secundum se materia, ly 'secundum se' intelligitur ratione status privationis formarum, et non respectus seu ordinis ad illas: ratione cujus non potest cognosci, nisi extrahatur ab illo, et consideretur sub ordine ad formam".

And this suffices to show in what sense matter is knowable in itself, and in what sense it is not.

Chapter IV. MATERIALITY AND KNOWLEDGE.

1. Opposition between materiality and knowledge

in the doctrine of St.Thomas.

Matter is a purely potential substantial principle. And because of that pure potentiality, it will have only a limited knowability. Since pure potentiality is unable to cause, man may know matter not directly, but only by analogy. God and angels may know it directly, even in its otherness from form, but that does not exclude form as the principle of matter's knowability, since matter, according to all that it is, is "to form".

Such are the conclusions we may draw from the precious chapter, in which we isolated matter, as it were, and considered what effect its pure potentiality would have on its knowability. But the problem is far from being completely clarified. There are many doctrines and many texts of St.Thomas on the problem that do not seem in any way to fit into what has been said so far. Some will perhaps even seem in opposition.

And many are so far without any apparent explanation.

To begin with, we have more or less taken for granted that actuality, form, is knowable; that matter, potentiality is unknowable. An explanation of this is called for.

But perhaps the most important insufficiency will appear when we speak of the knowability of beings. To isolate potentiality and actuality, as we have done, may be permitted for certain reasons. But in nature, things are otherwise. Beings are a mixture of potentiality and actuality in varying degrees. Are we merely going to say that their actuality is knowable, but their potentiality not so? A most important doctrine of St. Thomas is that the more a form is immersed in matter, the less it is knowable. He will even say that forms in matter are unknowable:

"Forma in materia existens non potest esse perfecte cognita ut intellecta in actu".
(Quodlibetum III.20)

Why should that be? Because a form is in matter, does it thereby cease to be a form, and knowable? Evidently, there is another aspect of opposition between matter and knowledge that we have not yet considered. Material beings are termed knowable only in potency; separated substances are actually knowable, but in varying degrees; God is actually knowable in a way no creature can be.

In other words, the degrees of knowability vary with the degrees of materiality. What does that mean? Is it to be explained merely by saying that there are varying proportions of unknowable matter, or potency, with knowable form, or actuality? A bottle of black ink is entirely black; a bottle of white ink, entirely white. Mixtures are more or less black or white according to the proportion of the two. Is the knowability of beings to be explained so simply?

It is easy to see that there is much more to the explanation than that. For instance, there is the whole doctrine of the necessity of abstraction.

"Res materialis intelligibilis efficitur per hoc quod a materia et materialibus conditionibus separatur. Quod ergo est per sui naturam ab omni materia et materialibus conditionibus separatum, hoc est intelligibile secundum suam naturam". (I Contra gentes 47.2)

Why does the form have to be abstracted from matter, in order to become knowable?

And there is also an entirely different aspect yet to consider. So far, we have always considered matter as limiting knowability. But it is equally true that matter limits the power to know of a being. So much so, that a parallel of the various degrees could be drawn, corresponding to the various degrees of knowability.

"Ex hoc aliqua res est intelligens quod est sine materia Oportet rem aliquam ex hoc esse intelligentem quod est sine materia". (I Contra Gentiles 44.4)

"Quanto enim aliqua vis cognoscitiva est immaterialior, tanto est perfectior in cognoscendo". (In I Metaphys., I.6)

At the foot of the scale is prime matter, entirely incapable of knowing. The very idea of prime matter being capable of knowledge is so grotesque that St. Thomas does not seem to have taken the trouble to even mention it. But at the other extreme, Pure Act, God, not only is supremely knowable but also supremely knowing. So necessary is the connection between intelligence and actuality that St. Thomas, in the Summa Theologica, makes God's actuality the only proof of His intelligence:

"Patet igitur quod immaterialitas alicujus rei est ratio quod sit cognoscitiva, et secundum modum immaterialitatis est modus cognitionis..... Unde cum Deus sit in summo immaterialitatis..... sequitur quod ipse sit in summo cognitionis". (I.14.1)

And he will resume the same argument in his Compendium Theologiae:

"Oportet igitur Deum esse omnino immunem a materia; immunitas autem a materia est causa intellectualitatis..... est igitur Deus intelligens". (Compendium Theologiae.)

In the Contra Gentiles (I.44) it is the fourth of the many arguments given:

"Ex hoc aliqua res est intelligens quod est sine materia... Ostensum est autem supra Deum esse omnino immaterialem. Est igitur intelligens".

Before going on to see why all this is so, there is another important remark to make concerning the doctrine. Materiality, we said, impedes both knowability and knowledge. Immateriality is the source of both, the capacity of being known, and the power to know. But the virtue of immateriality, or actuality, does not stop there. It does not account for a mere capacity, even active. Because sensitive powers have a beginning of immateriality, they are capable of sensitive knowledge. Because we have a spiritual soul, we are capable of intellectual knowledge. These are "powers" to know, but that is all we conclude. Actual knowledge does not follow from these inferior degrees of immateriality: they will begin as pure potencies in the realm of knowledge, to be actuated more or less as time goes on, even, in the case of the senses, reverting to pure potentiality. But the higher we rise above material conditions, the more a necessary connection is established not only with the power of knowing, but also with actual knowledge. So much so, that at the peak of immateriality - God's

Pure Actuality - not only is the power of knowing entailed, but also the actuality of knowledge. And that, not merely for extrinsic reasons. St. Thomas makes it follow directly from the purity of the immateriality or actuality.

"Cum igitur Deus nihil potentialitatis habeat, sed sit actus purus, oportet quod in eo intellectus et intellectum sint idem omnibus modis". (I.14.2)

The reason is evident, and it follows from what has been said previously. When that grade of immateriality is reached in which we have perfect knowability and perfect power to know, as is the case in God and angels, there must by the very fact be actual knowledge, since the union required between knower and known can be no more intimate than that existing between a thing and itself.

"Res materialis intelligibilis efficitur per hoc quod a materia et materialibus conditionibus separatur. Quod ergo est per sui naturam ab omni materia et materialibus conditionibus separatum, hoc est intelligibile secundum suam naturam. Sed omne intelligibile intelligitur secundum quod est unum actu cum intelligente. Ipse autem Deus intelligens est, ut probatum est. Igitur, cum sit immaterialis omnino, et sibi ipsi maxime sit unum, maxime seipsum intelligit". (I Contra Gentiles, 47.2)

"Item. Ex hoc aliquid actu intelligitur quod intellectus in actu et intellectum in actu unum sunt. Divinus autem intellectus est semper intellectus in actu: nihil enim est in potentia et imperfectum in Deo. Essentia autem Dei secundum seipsam perfecte intelli-

gibilis est, ut ex dictis patet. Cum igitur intellectus divinus et essentia divina sint unum, ex dictis, manifestum est quod Deus perfecte seipsum intelligat: Deus enim est et suus intellectus et sua essentia". (I Contra Gentiles, 44.3)

2. The entitative and the intentional orders.

We gather, then, that there is much in the doctrine of St. Thomas on the relation between materiality and knowledge that yet remains to be explained. So far in this chapter, the exposition has been very superficial. The intention has only been to suggest various familiar doctrines of St. Thomas that would show the insufficiency of the previous chapter and the need of a more embracing doctrine to account for all the relations between matter and knowledge.

And that doctrine would seem to be suggested, we said before, by the principle, "Unumquodque cognoscitur in quantum est immateriale". It is not so much a question of matter and form now, as of materiality and immateriality. This second aspect is very closely connected with the first aspect exposed in the previous chapter. And yet, there is a very definite distinction. Distinguishing clearly between the two, especially when considering a definite text, will often be most difficult.

Materiality, then, and knowledge are in fundamental and radical opposition. Why is that so? The reason is clearly given in St.Thomas, and is developed at length by John of St.Thomas. (14) It lies, as we must expect, in the very natures of matter and knowledge. Or if we wish, in the opposition between the two great orders of receptivity: entitative and intentional. And between the two principles: the principle of entitative reception and the principle of intentional reception. The former is based on imperfection, on potency; the latter, on perfection, on actuality. The former is found in all its purity in prime matter, which is purely a principle of subjective receptivity, in no way whatsoever a principle of intentional receptivity. The latter is found in all its purity in God, in no way a principle of entitative receptivity, Pure Act, and consequently also, "sequitur quod ipse sit in summo cognitionis". (I.14.1)

We must then, go back to the most important of Dualisms in the universe: the Dualism of Orders, Entitative and Intentional, already mentioned in the second chapter.

"Sciendum igitur quod res aliqua invenitur perfecta dupliciter". (De Veritate II.2)

"Hujusmodi autem viventia inferiora, quorum actus est anima, de qua nunc agitur, habent duplex esse. Unum quidem materiale, in quo conveniunt cum aliis rebus materialibus.

Aliud autem immateriale, in quo communicant cum substantiis superioribus aliququaliter". (In II De Anima, 282)

The first of the orders, the entitative or natural, is that in which things possess the perfections proper to their natures, but a perfection which is limited to themselves, and deprived of the manifold perfections of beings outside themselves:

"Uno modo secundum perfectionem sui esse, quod ei competit secundum propriam speciem. Sed quia esse specificum unius rei est distinctum ab esse specifico alterius rei, ideo in qualibet re creata huiusmodi perfectioni habitae in unaquaque re, tantum deest de perfectione simpliciter, quantum perfectius in aliis speciebus invenitur; ut cujuslibet rei perfectio in se considerata sit imperfecta, veluti pars totius perfectionis universi, quae consurgit ex singularum rerum perfectionibus, invicem congregatis". (De Veritate II.2)

"Est autem differentia inter utrumque esse: quia secundum esse materiale, quod est per materiam contractum, unaquaque res est hoc solum quod est, sicut hic lapis, non est aliud quam hic lapis." (In II De Anima, V. 283)

These manifold perfections, each in their own way, mirror the Divine Goodness from which they flow and which it is their aim to mirror.

"Totum universum cum singulis suis partibus ordinatur in Deum, sicut in finem; in quantum in eis per quamdam imitationem divina bonitas repraesentatur ad gloriam Dei". (I.65.2)

It is the Creator's aim precisely to communicate His infinite Goodness:

"Primo agenti..... non convenit agere propter acquisitionem alicujus finis, sed intendit solum communicare suam perfectionem quae est ejus bonitas. Et unaquaeque creatura intendit consequi suam perfectionem, quae est similitudo perfectionis et bonitatis divinae". (I.44.4)

Even prime matter, in its own way, reflects, though ever so weakly, the Goodness of the Creator:

"Inter partes etiam huius substantiae ex materia et forma compositae, bonitatis ordo invenitur forma quidem erit secundum se bona, materia vero secundum quod est in potentia ad formam..... Materia..... potest autem ex hoc simpliciter dici bona, propter ordinem ipsum". (III Contra Gentiles, 20)

As we rise in the scale of beings, more and greater perfections of God are mirrored. Inferior substances lack the perfection of knowledge, which will begin with animals and men:

"Quia non possunt pertingere ad perfectionem cognitionis et intellectus, quam consequuntur animalia et homines". (Ibid.) (15)

The perfection of causality itself is communicated:

"Intendunt igitur res divinam similitudinem in hoc quod sunt aliorum causae". (III Contra Gentiles, 21)

Necessarily, there will be divine perfections which

it will forever be impossible for creatures to mirror. A creature will never be its own existence. Though we do find creatures approaching that perfection as closely as they dare: in the angels, who, though having a received and distinct existence, nevertheless possess it with absolute necessity.

"Sunt enim quaedam in rebus creatis quae simpliciter et absolute necesse est esse".
(II Contra Gentiles, 30)

The infinity of perfection is what lies perhaps most beyond the possibility of creatures. Though separated substances may be said to have a certain infinity, in so far as their nature is not received in a limiting and determining potency, yet it can only be the infinity of their own essence. The necessary finiteness of creatures can have no remedy in the entitative order. (16) The creature would have to become the Creator. But if creatures are forever doomed to be cut off from some perfection in the entitative order, this imperfection will be remedied in the only way possible: by the intentional order. By knowledge, the knower becomes, intentionally if not entitatively, the known. It becomes possible for creatures thus to approach in a way, the infinity itself of God. For through knowledge, they can possess all perfections not proper to their own nature, so that it can truly be said even of the soul of man, "Anima quodammodo omnia".

"Unde ut huic imperfectioni aliquod remedium esset, invenitur alius modus perfectionis in rebus creatis, secundum quod perfectio quae est propria unius rei, in altera re invenitur; et haec est perfectio cognoscentis in quantum est cognoscens, quia secundum hoc a cognoscente aliquid cognoscitur quod ipsum cognitum aliquo modo est apud cognoscentem; et ideo in II De Anima dicitur, animam esse quodammodo omnia, quia nata est omnia cognoscere. Et secundum hunc modum possibile est ut in una re totius universi perfectio existat". (De Veritate II.2)

"Secundum vero esse immateriale, quod est amplum et quodammodo infinitum, in quantum non est per materiam terminatum, res non solum est id quod est, sed etiam est quodammodo alia. Unde in substantiis superioribus immaterialibus sunt quodammodo omnia, sicut in universalibus causis". (In II De Anima, V.283) (17) (18)

3. Determination of the entitative order; amplitude of

the intentional order.

Pursuing the analysis of De Veritate II.2 - so important in this question - we notice that St. Thomas immediately proceeds to indicate the fundamental opposition between materiality and knowledge. And this from both aspects. First of all, the materiality of a being will impede its being known, or possessed intentionally by another being. And the fundamental reason is given: because matter determines a perfection. The

material, or potential, principle which receives a perfection entitatively, determines it to be the perfection of this particular being. But to be known, it cannot be determined: it has to be able to become the perfection of other beings also. It will then have to be separated from matter in order to be such.

"Perfectio autem unius rei in altera esse non potest secundum determinatum esse quod habebat in re illa; et ideo ad hoc quod nata sit esse in re altera, oportet eam considerare absque his quae nata sunt eam determinare. Et quia formae et perfectiones rerum per materiam determinantur, inde est quod secundum hoc est aliqua res cognoscibilis secundum quod a materia separatur". (De Veritate, II.2)

If materiality opposes the being known of a perfection, it is also true on the other hand, to consider the other aspect, that it impedes the knower himself. To be able to receive intentionally, a being must be immaterial: for the more material it is, the more apt it will be to receive perfections not immaterially, but materially:

"Unde oportet quod etiam id in quo suscipitur talis rei perfectio, sit immateriale; si enim esset materiale, perfectio recepta esset in eo secundum aliquod esse determinatum; et ita non esset in eo secundum quod est cognoscibilis; scilicet prout, existens perfectio unius, est nata esse in altero". (Ibid.)

The opposition between materiality and knowledge will be found not only "ex parte objecti", but also "ex parte cognoscentis".

"Et hujus ratio est, quia actus cognitionis se extendit ad ea quae sunt extra cognoscentem; cognoscimus enim etiam ea quae extra nos sunt; per materiam autem determinatur forma rei ad aliquid unum. Unde manifestum est quod ratio cognitionis ex opposito se habet ad rationem materialitatis". (I.84.2)

From this, we see that the words "matter", "materiality" take on a new meaning. The notions we gave of matter in the first chapter concerned especially prime matter, a substantial potency, or the incomplete notion of it possessed by pre-Aristotelians. But the term "matter" now takes on amplitude, to mean any potentiality, any principle of receptivity in the entitative order. For that is what is precisely opposed to the principle of receptivity and communicability in the intentional order. If it is called matter, it is not surprising. For prime matter is where such a principle is found in all its purity. Prime matter, because a substantial potency, is nothing else but a principle of entitative receptivity. It can account only for entitative reception, and therefore for limitation, determination, and incommunicability of perfection. The word "matter" then becomes synonymous with potentiality, material cause; the word "materiality", with that condition of a being by which it is able to receive perfection in the same way as matter does, viz. entitatively.

"Et hoc ideo quia materia, sumendo materiam non prout restringitur tantum ad materiam corpoream, sed prout dicit modum causae materialis receptivae rei et formae entitative, sive in rebus corporeis sive in spiritualibus, est principium restringendi et coarctandi formam". (John of St.Thomas. Cursus Theologicus. D.XVI, l.12, 331b30)

Likewise, the term "immateriality", though it might seem at first sight to be a mere negation of materiality (in the sense given), is much more. It implies both: negation and affirmation. A negation, of the said materiality. An affirmation, of the positive perfection of a being by which it is able to know, i.e. to become other beings intentionally. The importance of this positive aspect of immateriality is stressed by John of St.Thomas in his commentary on I.14.1. (Cursus Theologicus. D.XVI. 1) In #10 of that commentary, we read,

"Igitur nomine immaterialitatis in hac ratione D. Thomae intelligitur non solum purificatio a materia prout praecise dicit negationem seu carentiam illius, sed prout dicit elevationem supra modum materiae, quantum ad hoc quod est recipere alia a se..... Ultra istum modum recipiendi debet elevari res cognoscens, et induere alium modum recipiendi quo possit sibi unire et conjungere etiam res alias quae sunt extra se, manentibus illis extra se entitative; quod utique non potest fieri in ipso esse entitativo et materiali quo res sunt in seipsis, sed in quodam esse formali, id est, intentionali seu repraesentativo, quod vocatur esse immateriale ad distinctionem ipsius esse quo res existit in se entitative".

And more precisely further on:

"Et ad id quod dicitur, an immaterialitas in praesenti sumatur pro sola negatione materiae vel pro aliquo positivo; respondetur quod sumitur pro aliquo positivo fundante negationem materiae et materialium condicionum, scilicet pro eo quod potest recipere aliud, non solum ut propriam formam, sed secundum quod est forma alterius".

4. Applications.

These previous explanations, given in a general way as regards all beings, will become more clear when applied to specific groups. To avoid confusion, we will treat separately the two aspects: the passive, or capacity to be known; and the active, or power to know.

With regard to the first, or passive aspect, we have said that the more a being is material (potential, capable of entitative perfection), the less it is knowable. It is not surprising then that prime matter is unknowable. Its pure potentiality, spoken of in the previous chapter, takes on a new meaning. Being pure potentiality, matter is purely a principle of subjective perfection: something may be communicated to it, but matter is incapable of communication. And communicability is essential to knowability.

Since form is the principle of communicability, as we have seen, it will be only by order to form therefore that matter will be knowable.

"Cum enim unaquaeque res sit intelligibilis secundum quod est actu, ut dicitur X Metaph., oportet quod ipsa natura, sive quidditas rei intelligatur vel ... vel... vel secundum id quod est ei loco actus, sicut in materia prima per habitudinem ad formam". (De Trinitate 5.3)

If we consider now natures received in matter - and among such we must class even the soul of man in the state of union - we see that such natures, though acts and of themselves knowable, are nevertheless impeded from being known by their union with matter. The matter which receives them, receives them entitatively and therefore limits and determines them. Before being known, they must be separated from matter, made immaterial.

"Similiter est etiam in cognoscibilibus: res enim materiales, ut Commentator dicit, non sunt intelligibiles, nisi quia nos facimus eas intelligibiles, sunt enim intelligibiles in potentia tantum; sed actu intelligibiles efficiuntur per lumen intellectus agentis, sicut et colores actu visibiles per lumen solis". (De Ver. II.2)

"Formae enim quae sunt in rebus materialibus aut in sensibus vel in phantasmate, cum non sint omnino a materia depuratae, non sunt intelligibiles actu, sed in potentia tantum; et ideo requiritur quod per actionem intellectus efficiantur actu intelligibiles". (De Veritate VIII.9)

When we enter into the angelic world, we encounter "immaterial" forms, forms which are not received in a limiting and determining potency. By the very fact, they will be by their very nature knowable, even though inaccessible to our sense-locked intellect.

"Angelus autem cum sit immaterialis, est quaedam forma subsistens et per hoc intelligibilis in actu". (I.56.1)

"Similiter est etiam ordo in cognoscibilibus; sed res immateriales sunt intelligibiles per seipsas; unde sunt magis notae secundum naturam, quamvis minus notae nobis". (De Veritate II.2)

But angels still have potentiality, and therefore cannot be classed in the same degree of "immateriality" as God. If "immateriality" meant a mere negation of corporeal matter, all angels and even God would be equal in that respect. The negation of corporeal matter is perfect in all spiritual beings.

"Sed haec immaterialitas in spirituali natura generice sumpta est completa et perfecta, quia omni corporeitate caret". (John of St. Thomas. Naturalis Philosophiae. IV.10.3, 317a25)

But since, as we have shown, "immateriality" does not only mean a negation of corporeal matter, but also of potentiality, God's knowability will be infinitely superior to that even of angels, since in God there is no potentiality whatsoever.

"Quia igitur Deus est in fine separationis a materia cum ab omni potentialitate sit penitus immunis; relinquatur quod ipse est maxime cognoscitivus et maxime cognoscibilis".
(De Veritate II.2)

Let us now examine the second aspect of knowledge, the active, or the power to know. That, too, we explained, is based on immateriality in the sense that the power to receive entitatively, as St. Thomas says, would limit the power to receive intentionally, i.e. to receive a perfection which will remain the perfection of another being. We must begin then by removing such from prime matter. As we mentioned before, it is absolutely inconceivable that prime matter have, in any way whatsoever, the power to know. The knowability of prime matter can be conceded in certain respects: analogically for us, and in other ways mentioned in the preceding chapter. But in no way whatsoever can we concede the power to know to prime matter. That power must even be refused to many complete substances, even living.

In considering the various degrees of knowability, all material forms were classed in one order. Not so for the power to know. Non-living beings, and even plants, are so material that they can only receive materially, entitatively. We must rise above plants to animals to find the first and still imperfect power to receive intentionally. Below animals, beings are too material, too determined and limited, to have the sufficient amplitude required for knowledge.

"Unde, manifestum est quod natura rei non cognoscentis est magis coarctata et limitata, natura autem rerum cognoscentium habet majorem amplitudinem et extensionem". (I.14.1)

"Et ideo, videmus, quod secundum ordinem immaterialitatis in rebus, secundum hoc in eis natura cognitionis invenitur: plantae enim, et alia quae infra plantas sunt, nihil immaterialiter possunt recipere; et ideo omni cognitionem privantur". (De Veritate II.2)

"Plantae non sentiunt, cum tamen habeant quamdam partem animae..... Causa igitur, quare non sentiunt.....: et ideo non habent in se hujusmodi principium, quod potest recipere species 'sine materia', scilicet sensum". (In II De Anima 24.557)

"Ratio est, quia omnis capacitas cognoscendi provenit ex una radice, nempe ex immaterialitate; quanto enim aliquid magis segregatum est a materia, magis aptum est fieri alia a se, non in ratione ipsa materiali et entitativa, sed in formali representativa". (John of St. Thomas. Naturalis Philosophia. IV.10.3, 317a15)

Passing on to the domain of spiritual natures, we find that not only are they, by their very nature, knowable, but also necessarily knowing. And that always because of their immateriality. As we have already seen, all angels are necessarily equal in their not having corporeal matter. But "immateriality" is not merely negative. It is also indicative of the positive perfection by which they are able to become other beings intentionally. The more they possess that perfection, the further they can be said to be from matter and entitative reception.

"Sed virtus operativa, lumen, quo fertur in objecta, non potest eiusdem rationis esse in omnibus, quia hoc non fundatur in sola immaterialitate seu praecisa carentia materiae, sed in actualitate maiori vel minori ipsius naturae spiritualis, quae tanto maior vel minor est, quanto magis vel minus accedit et assimilatur ipsi actui puro, qui est summa spiritualitas". (Ibid. V.3, 317a32)

The summit of perfection in knowledge is reached in God and that precisely because He is at the peak of immateriality. As John of St. Thomas notes, of all the arguments given to prove that God is intelligent, in I Contra Gentiles, St. Thomas chooses only the one from immateriality for the Summa Theologica. (I.14.1) The argument is succinctly put, in syllogistic form:
Major: Natures that do not know have restriction and limitation; natures that know, amplitude. ("Unde manifestum est quod natura rei non cognoscentis est magis coarctata et limitata, natura autem rerum cognoscentium habet majorem amplitudinem et extensionem".) The reason which led him to establish this major is taken from the very nature of knowledge: Beings which do not know have only their own form; beings which know, also the forms of other beings. ("Cognoscentia a non cognoscentibus in hoc distinguuntur, quia non cognoscentia nihil habent nisi formam suam tantum; sed cognoscens natum est habere formam etiam rei alterius, nam species cogniti est in cognoscente".)

Minor: But restriction is from materiality; amplitude from immateriality. ("Coarctatio autem formae est per materiam: unde et supra diximus, quod formae secundum quod sunt magis immateriales, secundum hoc magis accedunt ad quamdam infinitatem".)

Conclusion: Therefore, beings will have the power to know according as they are immaterial. God, supremely immaterial, will be also supremely knowing. ("Patet igitur quod immaterialitas rei est ratio quod sit cognoscitiva, et secundum modum immaterialitatis est modus cognitionis plantae sensus intellectus Unde cum Deus sit in summo immaterialitatis (ut ex superioribus patet), sequitur quod ipse sit in summo cognitionis".)

There would seem to be a grave objection to this argument: there is a manifest vicious circle. In the words of John of St. Thomas:

"In secundo modo petitur manifeste principium: quia est idem ac dicere, quod cognoscentia elevantur supra non-cognoscentia in hoc quod recipiunt formam rei alterius, non solum entitative et in esse rei, sed modo intentionali et cognoscibili: hoc autem est quod inquiritur, scilicet quid sit recipere formam modo cognoscibili; et solum ponitur differentia a non-cognoscentibus in hoc quod recipiant formas modo cognoscitivo, quod est supponere quod sunt cognoscentia, et quod differunt a non-cognoscentibus, per hoc quod cognoscentia sint cognoscentia". (Cursus Theologicus. D. XVI.1.4)

But the answer is best given by John of St.

Thomas himself (in #14):

"Ad primam difficultatem respondetur, quod D. Thomas in illa prima propositione, in qua ponit differentiam inter cognoscentia et non-cognoscentia, nec petit principium, nec assumit aliquid falsum; sed solum docet cognoscentia debere habere formam alterius, hoc est formam repraesentantem et trahentem ad se intentionaliter id quod est in altero entitative: nulli enim naturae nisi cognoscenti fieri potest repraesentatio; licet enim in tabula ponatur imago, vel in aere species, non ei repraesentat, licet illud subjectum informet. Et hoc non supponit D. Thomas, sed probat ex eo quod species cogniti est in cognoscente. Supponit autem D. Thomas tamquam per se notum ex ipsa natura speciei intentionalis (sicut explicavimus supra) quod species, secundum id quod formale et essenziale est in ipsa, non solum debet informare ratione sui inhaerendo, sed vice objecti repraesentando: et consequenter peculiari modo informari debent cognoscentia ab objectis, quam res non-cognoscentes a suis formis: quia cognoscentia debent habere formam rei alterius, id est, formam quae trahat ad se repraesentative, id quod entitative est in altero, cum tamen res non-cognoscentes non informantur ab eo quod est in altero objective, sed solum ab eo quod est in se inhaesive. In hoc ergo non committit D. Thomas petitionem principii; neque istum peculiarem modum informationis supponit, sed probat ex ipsa natura et intima essentia rei cognoscentis".

From the solution of the preceding difficulty, we are also enlightened on the meaning of "immateriality is the root of knowledge". If immateriality is called the "root" of knowledge, that cannot be in the strict sense in which, e.g. the nature of man can be said to be the root of his sensitive faculties. It is rather in the broad sense of a necessary condition without

which there could be no knowledge, but a condition also which will infallibly be accompanied by the power to know and which may consequently serve as a sign, as a conclusive argument, of the existence of the power to know.

"Et ita purificatio ab isto modo materialitatis, et elevatio super illum, dicitur modus immaterialitatis: qui conduit ad hoc ut forma existendo in altero entitative, possit esse sua repraesentative; et hoc est proprium cognoscentium. Unde, ex tali modo immaterialitatis optime probatur cognoscibilitas, tamquam ex ratione quadam et condicione necessario requisita ad cognoscendum, et distinguente cognoscentia a non-cognoscentibus".
(John of St.Thomas. Cursus Theologicus. XVI. 1.12)

5. The hierarchy of beings in the universe.

To what has been said so far, we may add a note on the hierarchy of beings in the universe. It is well known that St.Thomas speaks of such a hierarchy in innumerable texts. The universe is pictured as an ascending scale of beings, from prime matter to God. Such a hierarchy will be pictured from several points of view. From pure potentiality to supreme actuality; materiality, to immateriality or spirituality; weakest form of goodness, to infinite goodness; imperfection, to perfection; infinite in potency, to infinite in act; etc. The appa-

rent continuity or movement in such hierarchies of course, must be understood only as dialectical. There is an infinite difference between the hierarchies of St. Thomas and Hegelian Becoming, or the mad Marxian materialistic evolution. For all beings are necessarily specifically distinct and any passage from one to another will remain dialectical if we are to preserve the principle of contradiction.

But from what has been said, we may perceive the close connection of the various points of view. Since knowledge is based on immateriality, the hierarchy of beings may justly be considered as well from the point of view of knowledge as of materiality. We have noted that immateriality must be taken both negatively and positively. This is well brought out by St. Thomas in one of his most celebrated descriptions of the hierarchy of beings, that in *quaestio Disputata De Anima VII*. Grades must be considered from the point of view of a principle.

"Ubi cumque enim est diversitas graduum, oportet quod gradus considerentur per ordinem ad aliquod unum principium".

But we have two principles. First, the negative, or imperfection of matter, from which beings recede in a growing scale of perfection.

"In substantiis igitur materialibus attenduntur diversi gradus speciem diversificantes in ordine ad primum principium, quod est materia; et inde est quod primae species sunt imperfectiores; posteriores vero perfectiores....."

But from the point of view of the second, or positive, principle, Supreme Perfection, beings will gradually fall away in a descending scale becoming more and more imperfect.

"In substantiis vero immaterialibus ordo graduum diversarum specierum attenditur, non quidem secundum comparationem ad materiam, quam non habent, sed secundum comparationem ad primum agens, quod oportet esse perfectissimum; et ideo prima species in eis est perfectior secunda, utpote similior primo agenti; et secunda diminuitur a perfectione primae et sic deinceps usque ad ultimam earum".

We may note in passing that the "degradation" spoken of by St. Thomas ("et secunda diminuitur a perfectione primae") if taken as implying movement, must imply only a dialectical movement, and not a movement "in rerum natura", as noted above.

That brief description of the hierarchy of beings in the universe makes a fitting summary of what has been said in this fourth chapter regarding the principle "Cognitio sequitur immaterialitatem". Prime matter, at the foot of the hierarchy, unknowable because purely a principle of entitative reception. The merely potential knowability of material forms, due to their

union with that same prime matter. The knowability of separated forms due to their complete separation from prime matter, yet suffering some imperfection due to a condition truly called "material" even though it is not that of prime matter: viz., the capacity to receive entitatively. At the summit, God, completely pure not only of prime matter, but even of all materiality: in God, no capacity for entitative reception but on the contrary Infinite Perfection, Pure Act, and therefore supreme knowability.

And the capacity to know, likewise, grows proportionately. For the capacity to receive intentionally, or immaterially, is the opposite of receiving entitatively. In the senses, dim beginnings of immateriality in so far as forms are received without matter, though still in material organs. In the intellect of man, reception of forms not only abstracted from matter, but also received in an immaterial faculty. In separated substances, an ever increasing recession from materiality by an ever increasing power to receive intentionally. And, finally, in God, "in summo cognitionis"..... "cum sit in summo immaterialitatis". (I.14.1)

In the previous two chapters, we have considered matter mainly as an obstacle to knowledge. We have seen how the pure potentiality of matter impedes the knowability of matter itself, and in just what

sense that must be understood. Likewise, we have seen how and why the materiality of a being impedes not only the knowability, but also the power to know, of that being. But from another point of view, we said at the beginning, matter must justly be considered as a help to knowledge. We pass now to the consideration of this second aspect.

Chapter V. MATTER AS A HELP TO INTELLECTION.

1. A paradox.

After speaking of the pure potentiality of matter, and seeing how materiality is the very anti-thesis of knowledge, it seems a strange paradox to speak of matter as coming to the assistance of knowledge. More strange, if that is the case for man, for whom matter is entirely unknown except by analogy. Yet, the purpose of this chapter is to show precisely that such is the case.

There is evidently no question of assistance brought by matter to God's intellection. Nor even to angelic knowledge. By their superior mode of knowledge in practical species, they have no need of help coming from the object, for the dependence is altogether reversed. And even if we speak of man's knowledge, we know from what has been previously said, that it will be impossible to speak of any direct and immediate assistance brought by matter itself. Since man's knowledge depends on the activity of the known, and matter is incapable of activity, it will only be in indirect ways that matter can be said to help human intellection.

2. Purpose of the universe.

The relations between matter and man or, more properly, the human intellect, have been the subject of many and gross philosophical errors throughout the centuries. From Plato, through Averroes, to Descartes, to note only the more important, Philosophy has been encumbered with distorted views of matter and intellection. They have been ably refuted. And those refutations have been based mostly on the a posteriori method, facts taken from our experience of dependence on sense knowledge, of knowledge of material objects, etc. We will not dwell on those well-known aspects of the question, but will rather proceed a priori. For it was the lack of a more embracing and more universal philosophical view of the universe as a whole that occasioned such errors. If we conceive well the notion of creation, the purpose of the universe, the parts played by intellect and bodies in that universe, we understand better what relations should result between matter and intellection.

God is the Creator of the whole universe, and the end of creation can only be His own goodness. Since all agents act to an end, and God is the first Agent, all things must have God as their last end.

"Omne agens agit propter finem Sic ergo divina bonitas est finis rerum omnium". (I.44.4)

Only goodness can be the object of the will and move it to act. It must therefore be God's goodness which is the final end of the whole universe.

"Nihil tendit in aliquid sicut in finem nisi in quantum ipsum est bonum..... Omnia igitur ordinantur, sicut in finem in unum bonum quod est Deus". (III Contra Gentiles c.17)

But infinite Goodness, having nothing to acquire, cannot act in view of increasing its own perfection, as all other agents will. It can only be therefore the communication of His Goodness, external glory, that moved God to create the universe.

"Sed primo agenti, qui est agens tantum, non convenit agere propter acquisitionem alicujus finis, sed intendit solum communicare suam perfectionem quae est ejus bonitas". (I.44.4)

"Ulterius autem, totum universum cum singulis suis partibus ordinatur in Deum sicut in finem; in quantum in eis per quamdam imitationem divina bonitas repraesentatur ad gloriam Dei". (I.65.2)

As a result, God's tendency to an end will be far different from all such tendencies in creatures. Creatures are moved to the acquisition of an end, and therefore by the desire of that end. But in the last analysis, it must not be desire that moves God. He may desire the communication of His Goodness or His external glory. But strictly speaking, these are only means to the real

final end which can be none other than the Goodness of God. And this He does not desire, but merely loves. It is therefore God's love of His own Goodness that is the First Mover, - or His own Goodness that is the Final Cause.

"Communicatio bonitatis non est ultimus finis, sed ipsa divina bonitas, ex cuius amore est quod Deus eam communicare vult; non enim agit propter suam bonitatem quasi appetens quod non habet, sed quasi volens communicare quod habet: quia agit non ex appetitu finis, sed ex amore finis". (De Potentia III.15 ad 14)

Such then is the purpose we must see in the universe: all things tending to participate in the perfection of God and thus reflect His glory. But "Dei perfecta sunt opera". It is not question of what His absolute power might be capable of doing. All He does, God does with infinite Wisdom and with the perfection befitting His own infinite Perfection. The universe then will be a mirror of divine perfections by means of a hierarchy in which there will be no gaps. From prime matter, the dimmest possible reflection, beings will be graded to the heights of perfection reached in the highest angel.

"Talis enim videtur esse universi perfectio, ut non desit ei aliqua natura quam possibile sit esse". (De Spiritualibus Creaturis 5)

"Ex ordine rerum, qui talis esse invenitur ut ab uno extremo ad alterum non perveniatur nisi per media". (Ibidem)

There will be the innumerable species of corporeal beings. But there will be especially the perfections of knowledge and love. Since assimilation to the perfection of God is all the more perfect according as the causality itself of God is imitated, it will be the angels chiefly who will fulfill that role.

"Perfecta autem assimilatio effectus imitatur causam secundum illud per quod causa producit effectum Deus autem creaturam producit per intellectum et voluntatem; unde ad perfectionem universi requiritur quod sint aliquae creaturae intellectuales". (I.50.1)

3. The purpose of matter in the universe.

We may now better understand the role of matter and material beings in the universe. From what has been said, we know that they will glorify God by participating - in their own way - His perfections.

"Coeli enarrant gloriam Dei". (Ps. 18.1)

"Plena est omnis terra gloria ejus". (Is. 6.3)

But we cannot be unaware of their deficiencies. So much so, that a universe of only corporeal beings would be repugnant. And that, not only because some of the more important perfections of God would not be communicated.

The perfections of corporeal beings themselves would be sterile. The glory given to God in such creatures could be called glory only materially or fundamentally, but not formally.

"Coeli autem dicuntur enarrare gloriam Dei, laudare, et exultare, materialiter, in quantum sunt hominibus materia laudandi vel enarrandi vel exultandi". (De Spir. Creat., 6, ad 14)

Consequens est ut tota natura corporalis ad intellectualem ordinetur". (Compendium Theologiae 148)

Without intellectual natures to know them and see in them reflections of divine perfections, there could be no praise of God, no return of creatures to God. The universe could be a wonderful instrument, but there would be no musician to draw forth its harmony.

"Sola igitur intellectualis natura est propter se quaesita in universo, alia autem omnia propter ipsam". (III Contra Gentiles 112)

All things are ordained to God because all things desire God as their last end. But the causality of a final cause is exercised by being desired. This desire will be only implicit where we find only a natural appetite: a tendency to exist and operate according to one's nature, and thus implicitly to mirror God's perfections. But such a tendency hardly shows any explicit return of the creature to God. For that, there must be an elicit appetite, knowledge and love of God which can be found only in an intellectual

nature. Thus will creatures accomplish explicitly their return to God by a kind of returning movement.

"Influere causae finalis est appeti et desirari secundarius finis non appetitur nisi per virtutem finis principalis in eo existentem, prout scilicet est ordinatum in illud vel habet similitudinem ejus. Et ideo..... Deus..... appetitur in omni fine. Sed hoc est appetere ipsum implicite Unde sola rationalis natura potest secundarios fines in ipsum Deum per quamdam viam resolutionis inducere, ut sic ipsum Deum explicite appetat".
(De Veritate 22.2)

But the universe is not composed only of corporeal beings. And so corporeal beings do not have the sterility they would have in a world barren of intellect. But yet, their role remains a passive one we might say. If matter and corporeal beings could have a more direct connection with intellect - more important than merely "being known" by them, - then they would seem to contribute more, and perhaps even in some way even actively, though never formally, to the glory of God. Intellect of course can have no intrinsic dependence on matter in its existence and operations. But if there should be an extrinsic dependence, even then we could see the greater importance of matter. Being as it were the active servant of intellect, it would itself thereby be raised to a new level. And such is the case. For the union of man's soul with his body is a natural union. And in natural unions, matter is for the sake of the form, not vice versa.

Most errors concerning the relations between intellect and matter are also errors concerning the natural union of body and soul. We omit again any consideration of the well known theories of Plato, Averroes, Descartes. These are easily refuted, which refutation, we said, is generally taken from experience. It is evident from the way we know, what we know, when we know, etc., that there is an extrinsic dependence of our intellectual operations on matter. From all that, we know that it is so, that it is a fact.

But a priori considerations reveal why it must be so. And for that we must return to the purpose of creation. From what we have seen, we know that there must be corporeal and spiritual beings, these latter by far the more important. But we have also seen that there must be ordered variety in the work of God, so that there should be no being lacking which could represent in some distinct way the perfection of God.

"Talis enim videtur esse universi perfectio ut non desit ei aliqua natura quam possibile sit esse". (De Spiritualibus Creaturis. V)

If such is the case, there must be variety among intellectual natures. But there must also be one - and there can be only one - on the border-line between corporeal beings and spiritual beings. All other spiritual beings will know through connatural species received from God and they will sufficiently possess intellectual perfec-

tion to be able to know clearly and distinctly through those species. But the lowest nature, by its very nature, will be so poor intellectually that it will be incapable of knowing clearly and distinctly by means of such species. It will have but one means of knowing at its disposal, and that will be by the laborious and far inferior method of abstraction from material beings. But in order that this may be so, it will have to depend on matter, at least extrinsically. It will therefore be natural for it to be united to a body, to press into its service material faculties, to know material objects. And such is man. In his beginning, an intellect which is pure potency. Entirely dependent on matter to rise to the perfection of actual knowledge. If such a consideration belittles man as compared to other intellectual natures, it in no way lessens his vast superiority over all other corporeal beings.

But such considerations will also make us see in another light the relations between man and the material universe. With the tremendous strides of the experimental sciences in recent years, it has become the vogue to belittle man and extol the material universe. The heretofore unsuspected perfections of corporeal beings, the innumerable centuries required for cosmic evolution, the quasi infinite distances of the vast expanse of the universe, have reduced man, it would seem, to a mere "cosmic accident". For the scien-

tist steeped in his quantitative measurements, it seems true enough. But for the philosopher with an eye for quality, man still reigns supreme. To the scientist who would compare man with the stars, the philosopher answers, "I know the stars. But the stars do not know me!" And if we remember that knowledge is "quoddam fieri", we can more truly say "Men become the stars, acquire their perfection. But the stars do not acquire man's perfection".

Viewed in the right light however, the material world becomes the servant of man.

"Creatura corporalis facta est quodammodo propter spiritualem". (I.65.2 ad 2)

And in that very servitude it finds its greatest title to glory. Without that servitude, it would be doomed to sterility, it could not be said to contribute to any genuine external glory of God. But now that it is the servant of man, now that it is the necessary factor in bringing man's intellect to the light of knowledge and the genuine praise of God, it can truly rejoice that it, too, actively joins in the praises of God.

4. "Ultimus igitur finis generationis totius est anima".

We must now see how all this is brought about.

We have merely stated in a general way that all the material world will be ordained to the intellect of man. For this reason, man's intellectual soul must have a natural union with a body, of which it will be the form. We may distinguish then the help brought by matter into two considerations: as regards the existence and as regards the operations of man.

We do not of course pretend that man's soul has an intrinsic dependence on matter for its existence, that it will not survive at the death of the body. The assistance of matter brought to the human soul in so far as existence goes must be viewed in another light. The intellectual soul of man by its very nature, we said, requires that it be united to matter by a natural union in order thereby to perfect itself in knowledge. For this however it will require a body most perfectly disposed, a body equipped with the most perfect sensitive faculties, alone capable of being fitting instruments for the intellect and of helping it to arrive at knowledge.

"Si ergo propter hoc anima humana unibilis est corpori, quia indiget accipere species intelligibiles a rebus mediante sensu; necessarium est quod corpus, cui anima rationalis unitur, tale sit ut possit esse aptissimum ad repraesentandum intellectui species sensibiles, ex quibus in intellectu intelligibiles species resultant. Sic ergo oportet corpus cui anima rationalis unitur, esse optime dispositum ad sentiendum".
(Quaestio Disputata de Anima. a.8)

But from the pure potentiality of prime matter to the perfection of dispositions required in the body before it may be informed by the human soul, there is a quasi-infinite distance. True, the last dispositions required can only be given by the soul itself. But before the soul may do that, it pre-requires certain dispositions of a high perfection. The soul of man could not immediately be communicated to elemental bodies. And for that reason all nature will unite in a vast labor to dispose matter for the reception of the soul of man, its highest perfection and its true glory. The whole process of evolution, viewed in this light, takes on new meaning: a vast labor of the universe ordained to the generation of man. (19) True, the natural universe can never produce the soul itself of man, even if we take into account the supra-corporeal natures, or separate substances, that, as higher and universal causes, conduct this whole process of generation. The soul itself must come from the hands of God. But for that matter, neither do human parents produce the soul of their offspring, whom they are nevertheless truly said to generate, insofar as they cause the last disposition prerequired for the infusion of the soul by God.

Since the existence of man then prerequires disposed matter, and it is the work of the corporeal universe to produce such dispositions, we see that matter can truly be said to positively cooperate towards

intellection by rendering possible the very existence of the intellect which is man.

"Ultimus igitur finis generationis totius est anima humana, et in hanc tendit materia sicut in ultimam formam". (III Contra Gent. 22)

5. The role of matter in human knowledge.

If matter can thus be said to bring a positive assistance to intellection by rendering possible the existence itself of intellect, it can also be said to be of positive assistance in the intellectual operations of that intellect. Once more, it is necessary to limit such an assistance. We must not understand it in the sense that intellect needs a material organ which will be coprinciple of its operations, as is the case in all sensitive powers. If the intellect needs a body for its operations, it is not because it needs an organ in that sense.

"Anima humana est actus corporis organici, eo quod corpus est organum ejus. Non tamen oportet quod sit organum ejus quantum ad quamlibet ejus potentiam et virtutem; cum anima humana excedat proportionem corporis". (Quaestio Disputata de Anima. II. ad 2)

Intellectual operations are intrinsically independant of matter, just as the existence of intellect is intrinsical-

ly independent of matter. The dependence therefore will have to be limited to an extrinsic one. We may distinguish the assistance brought by matter into three considerations. First, matter will furnish the object of knowledge proportionate to human intellect. Secondly, matter will furnish the necessary sensitive powers by which alone intellect may reach its object. Thirdly, matter will furnish the phantasms from which the intellect will directly derive its species, and which will even be instrumental in the production of those species. We do not of course mean that prime matter by itself, pure potentiality, will furnish all of this. The role of material forms is not to be overlooked. But it is due to matter that all of this is possible. Without matter, intellect would have no knowable object, no way of reaching its object. It would remain pure potentiality in the realm of knowledge. No wonder matter can truly be said to help intellection.

First then, as regards the object. Matter furnishes the human intellect with the only object proportionate to its weakness. For such is this weakness that it can only know by receiving from singulars. Angels, with their higher intellectual light, are able to receive universal species from God and with those species attain to a clear and distinct knowledge, even of singulars. But such is man's intellectual weakness that he could never attain to clear and distinct know-

ledge with such species. Man must know by receiving from singulars.

"Anima, cum sit infima in ordine intellectivarum substantiarum, infimo et debilissimo modo participat intellectuale lumen, sive intellectualem naturam Si autem substantia intellectualis inferior haberet formas ita universales sicut superior; cum non adsit ei tanta virtus in intelligendo, remaneret ejus scientia incompleta; quia tantum in universali res cognosceret, et non posset deducere cognitionem suam ex illis paucis ad singula. Anima ergo humana, quae est infima, si acciperet formas in abstractione et universalitate conformes substantiis separatis; cum habeat minimam virtutem in intelligendo, imperfectissimam cognitionem haberet, utpote cognoscens res in quadam universalitate et confusione. Et ideo, ad hoc quod ejus cognitio perficiatur, et distinguatur per singula, oportet quod a singulis rebus scientiam colligat veritatis; lumine tamen intellectus agentis ad hoc necessario existente, ut altiori modo recipiantur in anima quam sint in materia. Ad perfectionem igitur intellectualis operationis necessarium fuit animam corpori uniri". (Quaestio Disputata de Anima. XV)

The only proportionate object then for the human intellect is the material quiddity. And that is the way it should be. Human intellect, lowest in intellectual perfection, pure potentiality, has as its object that which is intelligible not in act but only in potency:

"Quae cum sit infima in toto ordine intelligibili, maxime conformatur intelligibili infimo et imperfecto, quale est intelligibile in potentia. Hoc autem debet esse aliqua quidditas non spiritualis et immaterialis in actu, sed immaterialis in potentia et per abstractionem facta intelligibilis in actu, et ita vocatur quidditas rei sensibilis". (John of St. Thomas. *Philosophia Naturalis*. IV.10.3. 318b25.)

So true is this, that the soul cannot even know itself, despite the union. For intellectually it is pure potency and must first be actuated by knowledge of material essences, and only by reflection on that knowledge does it arrive at selfknowledge.

"Anima enim nostra in genere intellectualium tenet ultimum locum, sicut materia prima in genere sensibilibus Sicut enim materia prima est in potentia ad omnes formas sensibiles, ita intellectus noster possibilis ad omnes formas intelligibiles ita intellectus possibilis non est intelligibilis nisi per speciem superinductam. Unde mens nostra non potest seipsum intelligere ita quod seipsum immediate apprehendat; sed ex hoc quod apprehendit alia, devenit in suam cognitionem". (De Veritate X.8)

Much less will there be any direct knowledge of God and angels:

"Unde mens nostra naturali cognitione, quam in statu viae experiamur, nec Deum nec angelos per essentiam videre potest". (De Veritate X.11)

"Et hoc convenit intellectui humano propter hoc quod non est proportionatus ad intelligendum naturaliter essentias separatas". (De Veritate 18.5 ad 4)

And that is the reason why the intellect of man has been compared by Aristotle to an owl, which is only blinded by light, and needs darkness that it may see. So is our poor intellect incapable of perceiving that which is intelligible in act: we need the darkness of intelligibility in potency, found in material objects, that we may know.

"Unde non sequitur, si substantiae separatae sint in seipsis magis intelligibiles, quod propter hoc sint magis intelligibiles intellectui nostro. Et hoc demonstrant verba Aristotelis in II Metaphysicae. Dicit enim ibidem quod difficultas intelligendi res illas accidit ex nobis, non ex illis: nam intellectus noster se habet ad manifestissima rerum sicut se habet oculus vespertilionis ad lucem solis". (III Contra Gentiles. 45) (20)

Since such is the state of our intellect, we may be thankful that there are material objects. Though matter is directly unknowable to us; though it is the antithesis of knowledge by its determination of form; yet, it renders possible the existence of the only object proportionate to our intellectual powers.

"Intellectus autem humani, qui est conjunctus corpori, proprium objectum est quidditas, sive natura in materia corporali existens; De ratione autem hujus naturae est quod in aliquo individuo existat, quod non est absque materia corporali". (I.84.7)

Matter can thus truly be said to assist knowledge.

If matter is of assistance to intellectual operation in furnishing a knowable object, it is also of assistance in furnishing to intellect the necessary material faculties required to transform that object and elevate it to the point at which, by the light of the agent intellect, an intelligible species may be abstracted. For though material essences are the proportionate object of intellect, they are very far from being intelligible in act. For that, many transformations

will be necessary, transformations that will be accomplished by the several external and internal senses.

"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 quia in sensu habet spiritualius esse quam in re sensibili, in imaginatione autem adhuc spiritualius quam in sensu, et sic deinceps ascendendo". (De Veritate. XIX.1)

The human intellect then, could never attain its object except through sensitive powers. And that is why its union with a body is natural.

"Ad propriam operationem indiget ut fiat in actu formarum intelligibilium, acquirendo eas per sensitivas potentias a rebus exterioribus; et cum operatio sensus sit per organum corporale, ex ipsa conditione suae naturae competit ei quod corpori uniatur". (Quaestio Disputata de Anima 7)

Hence the importance of matter. Without it, there could be no sensitive powers, and our intellect would be forever separated from its proper object.

Finally, we may consider the role of matter a step nearer to the intellect, as it were, viz., in the phantasms. It is from the phantasms that the intellect will abstract the intelligible species. We may consider the phantasms as helping to intellection in two ways: as furnishing that from which the intellect may immediately abstract its object, and secondly as

being instrumental in that process of abstraction.

So great is the importance of the phantasm as regards the object of intellect, that St. Thomas will sum up everything as regards the need of a body by saying that the body furnishes to intellect its object, viz., the phantasm. For it is the phantasm that is nearest to being intelligible in act, and all the operations of sensitive powers can be conceived as ordained to the production of the phantasm.

"Nihil autem est altius phantasmate in ordine objectorum cognoscibilium nisi id quod est intelligibile actu". (II Contra Gentiles 96)

No wonder that it is the phantasm that will be called the object of our knowledge. At times, without modification:

"Intellectus autem animae humanae objectum est phantasma". (Ibid.)

At other times however, with the necessary explanations:

"Objectum autem quod requiritur ad intelligendum, est phantasma et similitudo rei particularis, quod est in organo phantasiae Advertendum tamen quod phantasma non intelligitur sicut color videtur, sed pro tantum dicitur objectum intellectus, quia suam operationem non exercet sine phantasmate. Proprium autem objectum ipsius intellectus possibilis, est quod quid est, id est quidditas ipsius rei..... Phantasma autem est illud quo quasi effective intelligit in acquirendo scientiam". (Opusculum de Potentiis Animae. c.6)

But if the assistance of the phantasm seems to be mainly in furnishing to the intellect its object, there is also another role which must not be overlooked. The previous would seem to be along the lines of some kind of material or external formal causality.

"Sensibilis cognitio non est totalis causa intellectualis cognitionis, sed quodammodo est materia causae". (I.84.6)

But besides that role, all Thomists agree with St.Thomas that the phantasm also concurs in the very process of abstraction as an efficient cause, though only as instrument of the Agent Intellect. It is not our purpose to engage the problem of explaining the exact way in which that is done. Thomists are far from agreeing on the matter and even St.Thomas is all too brief. (21) For our purpose, it is sufficient to note that the phantasm must exert some kind of instrumental causality as the instrument of the Agent Intellect.

"In receptione, qua intellectus possibilis species rerum accipit a phantasmatibus, phantasmata se habent ut agens instrumentale et secundarium, intellectus agens vero ut agens principale et primum". (De Veritate X.6 ad 7)

And the reason is clear:

"Ratio vero est quia intellectus agens non habet in se actu omnium rerum species determinate et distincte, alias si sic contineret illas, non indigeret anima uniri corpori". (John of St.Thomas. Philosophia Naturalis. IV.10.2.306a30)

The phantasm may then be said to concur in intellection both as furnishing the object and even as being instrumental in the abstraction of the intelligible species. But phantasms, perfect as they may be and near to the intelligible species, forever remain singular concrete material entities entirely dependent on material organs for their existence.

"Intelligere dicitur esse actus conjuncti non per se, sed per accidens, in quantum scilicet ejus objectum, quod est phantasma, est in organo corporali". (Opusculum de Unitate Intellectus)

"Patet hoc quia objectum in omni illo statu ante formatam speciem intelligibilem est actu sensibile et materiale et repraesentatur in singulare". (John of St.Thomas. l.c. 304b15)

Once more then the importance of matter for intellection is evident. As much as phantasms are necessary for intellection, so is matter necessary for the very existence of phantasms. Intellection cannot be without phantasms. But more so, phantasms cannot be without matter

6. Limitations.

We have barely sketched the main headings under which matter may be said to help intellection. The subject is much more fully treated by St.Thomas, particu-

larly in those questions dealing with the natural union of soul and body. (Especially the De Veritate and the Quaestio Disputata de Anima.) And there are many important limitations to what we have said. For instance, we must not forget that though we have stressed the role of matter in intellection, that in no way means that the intellectual soul does not remain intrinsically independent of matter both in existence and in its proper operations. A child dying before the formation of intelligible species is not thereby doomed to eternal privation of knowledge. Though its separated soul may be deprived of acquired species proportionate to its intellectual powers, infused species will undoubtedly supply in some way for this deficiency.

"Inconueniens videtur quod animae illorum qui in maternis uteris moriuntur, quae forte nullum intellectus usum habuerunt, et per consequens nec alias species intelligibiles acquisitas, nihil post mortem intelligant. Unde oportet addere, quod anima in sui separatione a corpore, recipit influxum specierum intelligibilium a natura superiori, scilicet divina". (Quodlibetum III.a.21)

Likewise, we have stressed the utility of matter as regards the soul of man, since the union with matter is for the good of the soul, that it may perfect its proper operations.

"Non est in detrimentum animae quod corpori uniat; sed hoc est ad perfectionem naturae". (Quaestio Disputata de Anima a.2 ad 14)

But on the other hand, we must not forget that such a union will also by its very nature entail some inconveniences. Instead of being a subsistent incorruptible substance as the angels, man will be a corruptible being.

"Corruptibilitas est ex defectibus qui consequuntur corpus humanum ex necessitate materiae". (Quaestio Disputata de Anima. a.8 ad 9)

Likewise, the possession of sensitive faculties, useful though they be, will give rise to a conflict of desires in man that will often run counter to man's real good.

"Pugna quae est in homine ex contrariis concupiscentiis, etiam ex necessitate materiae provenit; necesse enim fuit, si homo haberet sensum, quod sentiret delectabilia, et quod eum sequeretur concupiscentia delectabilium, quae plerumque repugnat rationi". (Ibid. Ad 7)

"L'union de la nature intellectuelle et de la nature sensible assujettit l'homme à une certaine contrariété. La nature sensible nous porte vers le bien sensible et privé, la nature intellectuelle a pour objet l'universel et le bien sous la raison même de bien". (Charles DeKoninck. Ego Sapientia. p.79)

Is it possible then that a union which is natural should be detrimental? The answer is given by St. Thomas:

"Illud per quod debilitatur aliquid praeintellecta sua natura, non est naturale. Contingit tamen plerumque quod aliquid est pertinens ad naturam alicujus, ex quo sequitur in eo aliqua debilitatio aut defectus; sicut componi ex contrariis est naturale animali; ex quo sequitur in eo mors et corruptio. Et similiter naturale est animae quod indigeat phantasma-

tibus ad intelligendum; ex quo tamen sequitur quod diminuat in intelligendo a substantiis superioribus. Quod autem dicitur, quod anima a corpore praegravatur, hoc non est ex ejus natura, sed ex ejus corruptione". (De Spiritualibus Creaturis. a.2 ad 7)

It remains then, despite detrimental effects entailed, that it is for the soul's good that it be united to a material body. In fact, it is especially that the intellectual soul may be able to perform its highest operation: immaterial knowledge. Matter is then a positive help to intellection. And not only the matter of the body, which renders possible the necessary sensitive faculties and phantasms. Nor either only the matter of the particular material objects known. But all the matter of the whole universe, cooperating and tending to the realization of man who, by his intellectual knowledge will finally wipe away the shame of the barrenness of the material universe which, of itself, could never engender a single act of formal praise of God for which it was created.

CONCLUSION

We have outlined the main aspects of the relations between matter and knowledge. We now resume briefly. From a first point of view, matter is an obstacle to knowledge, and that in two ways. First of all, due to its pure potentiality, it will withstand all the efforts of a purely speculative intellect such as man's, to arrive at anything but an analogical knowledge of it. And even, for the same reason, it will not be knowable by a perfect idea of God's practical knowledge, which knows things as they exist, since matter cannot exist of itself. It will therefore be knowable only in the idea of the complete being, or, if in its own idea, that will be only by a purely speculative idea, and always by order to form, even if it is the otherness itself of matter itself that is represented. And matter is an obstacle to knowledge in a second way. Principle of entitative reception and therefore of determination, it will be the exact antithesis of the amplitude required in both knower and known as such. The more natures are material, the more they are, by the very fact, unknowing and unknowable. It is only in the degree that they can be immaterialized that they will become knowable and knowing. From this first point of view, then, matter can truly be considered as the arch-enemy of knowledge.

But paradoxically, from the second point of view, matter can equally be considered the hand-maid, the sine-qua-non condition, of man's intellectual natural knowledge. That is the main reason of its own existence: to be the servant of man.

"La matière est, de toute son essence, un amour pour l'âme humaine". (Charles DeKoninck. Le Cosmos. p.163)

The whole universe tends to man, finds in man the full realization of the purpose of its existence.

"Dans l'intelligence humaine le cosmos ne devient pas seulement présent à soi-même: cette présence l'ouvre sur l'être tout entier, et par là il peut désormais réaliser un retour explicitement vécu au Premier Principe de l'être - Dieu, qui tire à Soi le monde afin de Se faire "dire" par lui, et qui creuse ainsi un abîme où Lui-même pourra faire sa demeure". (Ibid. p. 154)

Finis

N O T E S

Chapter II.

1. (19) Cf. the description of Shelling's five "Systems" in William Turner, History of Philosophy, Ginn & Co. 1929, pp. 556 ff.
2. (20) "Saepe litterati tam ingeniosi esse solent, ut invenerint modum caecutiendi etiam in illis quae per se evidentiæ sunt atque a rusticis numquam ignorantur; quod illis accidit, quotiescumque res istas per se notas per aliquid evidentiæ tentant exponere: vel enim aliud explicant, vel nihil omnino; nam quis non percipit illud omne quodcumque est, secundum quod immutamur, dum mutamus locum, et quis est qui conciperet eandem rem, cum dicitur illi, locum esse superficiem corporis ambientis? cum superficies ista possit mutari, me immoto et locum non mutante; vel contra mecum ita moveri, ut quamvis eadem me ambiat, non tamen amplius sim in eodem loco. At vero nonne videntur illi verba magica proferre, quae vim habeant occultam et supra captum humani ingenii, qui dicunt motum, rem unicuique notissimam, esse actum entis in potentia, prout est in potentia? quis enim intelligit hæc verba? quis ignorat quid sit motus? et quis non fateatur illos nondum in seipso quaesivisse? Dicendum est igitur, nullis unquam definitionibus ejusmodi res esse explicandas, ne loco simplicium compositas apprehendamus". (Regulae ad directionem ingenii, p. 71)
3. (27) Since we wish to limit ourselves in the text, we do not go further into the question. However, the more complete text of John of St. Thomas is so elucidating on the intimate nature of knowledge and the role of species, that we add it here:
"Secundum quod supponimus est, quod ad rationem speciei intentionalis valde materialiter se habet quod ejus entitas sit qualitas, vel substantia: munus enim speciei in quo formaliter consistit in quacumque entitate ex istis exerceri potest: formale enim munus speciei intelligibilis non consistit in eo quod actuet intellectum inhaerendo, vel entitative informando, sicut alia accidentia, quae realiter informant subjectum sistendo in ipsa entitativa informatione, vel compositione alicujus tertii, sed in hoc quod

est reddere intellectum conjunctum objecto, seu determinatum ab illo, nec tamen cum entitate objecti componentem aliquam naturam, sed intellectus ipse fit ipsummet objectum, non ex objecto, et intellectu constituitur aliquod tertium, vel aliqua natura, quia haec informatio, et actuatio objecti non ordinatur ad componendam aliquam naturam, sed ad apprehendendum, et trahendum ad se id quod est ad extra: haec enim est vis, et propria ratio entis cognoscitivi, quod res ad extra manentes, etiam ut alteras, et entitative diversas, et immutatas potest sibi unire, et conjungere, et talis conjunctio objecti, quae entitatem objecti non immutat, nec tertiam entitatem, seu naturam constituit cum intellectu cui conjungitur, sed solum remanet intellectus repraesentative, et intentionaliter ipsummet objectum, quia ipsum in se intime apprehendit, et attingit, eique assimilatur, hoc est munus speciei formaliter loquendo, id est, objectum potentiae unire, non entitative, nec entitatem aliquam, seu naturam componendo cum illa, sed repraesentative, seu intelligibiliter, ita quod totum quod est in se res aliqua entitative, totum hoc sit ipse intellectus, et sit in intellectu intelligibiliter, et in esse objective seu intentionali, et repraesentativo. Quod totum non explicatur melius, quam per hoc quod fiat alterum a se, non entitative, nec per commutationem, et conversionem in illud, sed per quamdam tractionem ad se, quae dicitur repraesentatio, et intelligibilis transformatio, ut latius explicavimus tomo praecedenti, disp. XVI, art. I." (J.S.T. Cursus Theologicus. disp. XXI, art. 2, II)

4. (29) "Faut-il en conclure que le connaissant est le connu? Faut-il en conclure que le connaissant et le connu sont la même chose? Ne s'ensuivrait-il pas que le chien et l'arbre qu'il connaît sont la même chose, et qu'entre moi-même et les choses que je connais, il n'existe aucune distinction? N'est-ce pas là justement le plus grossier subjectivisme?"

C'est ici même qu'il faut faire la distinction entre les deux manières d'être, distinction connue de tous, bien que peu en saisissent les conséquences. Le chien ne devient pas l'arbre en sorte que l'arbre deviendrait chien, ou que le chien se transformerait en arbre: en d'autres termes: connaître, ce n'est pas devenir l'autre entitativement, mais c'est devenir l'autre sans supprimer l'autre: avoir l'autre comme autre". - Charles DeKoninck. *Méthodologie Scientifique*. 1940-1941, pp. 7-8. --- On pp. 8-9,

an excellent explanation is given to show that knowledge does not suppress the known's existence - as Becoming through the process of digestion involves - but rather essentially requires the continued existence of the known. Also, Mr. DeKoninck shows there the importance of understanding this doctrine - which modern philosophers are unanimous in ignoring.

5. (29) Not that substantial forms are contraries, but rather their specific differences: "Formae substantiales non sunt contrariae, licet differentiae in genere substantiae contrariae sint, secundum quod una accipitur cum privatione alterius, sicut patet de animato et inanimato". (In I Phys. Lect. XIII, #8)
6. (34) On this subject, confer the excellent note on p. 58, Yves Simon, *Ontologie du Connaître*. Desclée De Brouwer et Cie. Paris. 1934. --- On this subject also, Fr. Jos. Gredt O.S.B., writes: "Ergo cognitio non consistit in receptione speciei impressae (contra Aegidium Romanum), neque in quacumque entitate passive inhaerente, ita enim consisteret in receptione et possessione materiali formae; sed cognitio omnis creata, quae fit cum transitu de potentia in actum, necessario oritur causalitate efficiente subiecti cognoscentis, quod in se efficienter producit cognitionem, neque cognitio perdurat nisi sub iugi influxu efficiente subiecti cognoscentis. Ex quo etiam deducitur, actum cognitionis numquam mere passive infundi posse". (*Elementa Philosophiae*. Herder. 1937. Editio septima. Vol. I, p. 358, #465.3)
7. (36) On the subject of the part played by the faculty of knowledge in eliciting the act of knowledge, cf. Yves Simon. *Ontologie du Connaître*. p. 162, Note 1.
8. (42) Further on in the same commentary, Cajetan also goes on to show how the saying must be interpreted from the point of view of the adequate object of the intellect: *ens in communi*.

Chapter III.

9. (51) Direct knowledge here is opposed not only to knowledge by reflection, but also to knowledge by analogy. It is in that sense that St.Thomas uses the term in the many articles under consideration. We make this restriction of terms for the present problem, for we know that the term "direct" does not always mean "immediate", as John of St.Thomas points out:
"At vero directe cognoscere contraponitur ei, quod est reverti seu regredi supra principia ipsa cognitionis, Unde constat non esse idem objectum directae cognitionis et objectum immediate attactum; nam etiam secundarium et mediatum objectum directe attingi potest et sine reflectione, si ex parte principii elicentis non se teneat". (Cursus Philosophicus. Philosophia Naturalis. IV.10.4, 323b30) At times, St.Thomas will also use the term "immediately". (Cf. Note 11)
10. (52) Since these passages are so important for the present question and also for the following, we list the leading ones. With regard to:
God: I.14.11; De Ver.2.5; I Contra Gent. 65;
Angels: I.57.2; De Ver.8.11; II C.G.100; Qdlt.7.3;
Man: I.86.1; De Ver.10.4; Quodlibetum 12.11;
Separate soul: I.89.4; De Ver.19.2; De An.20.
11. (56) The meaning of the term "immediate" here evidently involves the meaning we have given to "direct", as is evident from the "et non unum per alterum".
12. (60) We have corrected the reference.
13. (65) We are taking the term "idea" here in the way used by St.Thomas, as explained in the chapter. Among modern authors, the term idea will be used as synonymous with concept and knowledge. In this very broad sense, of course, knowledge and idea might be coextensive.

Chapter IV.

14. (91) The principal passages of St.Thomas for this second aspect of the opposition between matter and knowledge are I.14.1 and De Veritate II.2. Of John of St.Thomas, his justly celebrated commentary on I.14.1 (Cursus Theologicus D.XVI, a.1).
15. (93) Note that in the given passage, only the power to know is considered, as an entitative perfection. The consideration of the intentional aspect will follow.
16. (94) "Dans l'être de la nature, la chose créée subit la loi de la potentialité: elle n'est que ce qu'elle peut être: par la connaissance elle devient, à la lettre, ce qu'elle ne peut pas être". (Yves Simon. Ontologie du Connaître. p. 58)
17. (95) This aspect of the amplitude of knowledge as a remedy for the imperfections of creatures, stated so beautifully by St.Thomas, will be found treated by Yves Simon, "Ontologie du Connaître", p.34 ff. Also in Charles DeKoninck, "Le Cosmos", p.134, "Le Cosmos comme Elan vers la Pensée".
18. (95) When St.Thomas points out the intentional order as a "remedy" for the imperfections of creatures ("unde ut huic imperfectioni aliquod remedium esset"), we must not misunderstand the nature of this statement. There is no intention of giving the essential and unique "raison-d'être" of knowledge: the conclusions that would follow would be very strange indeed. It would seem that we should conclude that God, infinite perfection and therefore having no need of such a remedy, does not know. Elementary bodies, being most imperfect, most in need of such a remedy, would consequently have most perfect knowledge. In other words, it would seem that the more perfect a being, the less perfectly it knows. And yet, it is exactly the opposite that is true. The meaning then, is not that the "need of a remedy" is the root of knowledge. This can only be the immateriality of the being. The statement of St.Thomas, then, is perhaps best interpreted as a kind of subordinate final cause in creation. Necessarily, from the very nature of knowledge, a more perfect creature is capable of more perfect knowledge. But all creation as a whole finds itself "remedied" by the possession of knowledge. This cannot have been overlooked by God and must there-

fore have been intended by Him as one means of better attaining the primary end of creation.

Chapter V.

19. (123) "Nous pouvons donc considérer la maturation du cosmos comme une tendance vers la pensée". Charles DeKoninck. Le Cosmos. p.138. The whole chapter, pp.134-154, should be read in connection with this subject. Further on, p. 148: "L'évolution est un effort du monde pour se communiquer à soi-même, et pour imiter ainsi son premier Principe - la Pensée qui se pense". The author thus shows how the universe, in the labor of Evolution, strives to realize a more perfect resemblance to its Author, which realization can be accomplished only in man. Hence, the role of servitude of the material universe with regard to man, as we mentioned above. "Dans l'idée que nous nous faisons de l'évolution, les êtres infra-humains sont essentiellement fonction de l'homme". (Ibid.)
20. (128) The text of Aristotle is in II Metaph. 993b. See also De Trinitate. 5.4, in corpore; Q.D. De Anima, a.5.
21. (131) For a summary of the question, cf. John of St.Thomas, Philosophia Naturalis. IV.10.2, 304.

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