que l'intelligence dépend du sens pour poser ses opérations en ce sens que, sans perception sensible préalable, pas d'intellection possible.

Nous constatons que les problèmes soulevés par Aristote en matière de psychologie de la connaissance ont déjà été posés avant lui par ses prédécesseurs, notamment les présocratiques. Ces derniers ont présenté des solutions où l'erreur et la vérité se côtoient sans cesse ; et cela se comprend si l'on songe qu'on en est au tout début de la philosophie.

Cependant, les opinions des anciens philosophes conservent quelque valeur, et Aristote ne les rejette pas absolument sans tirer la part de vérité qu'elles renferment. Par exemple, Aristote reconnaît avec Empédocle que le processus de la connaissance se réalise à condition qu'il s'établisse un contact entre le sujet et l'objet et que l'objet connu devienne présent dans le sujet. Avec lui, il reconnaît que la sensation est bien le premier moyen de connaissance et que l'âme qui connaît devient toutes choses. Les erreurs des anciens pilosophes servent de leur côté à Aristote : elles lui évitent de les faire à son tour et le mettent en garde contre des erreurs du même genre. Sans les tâtonnements des anciens penseurs, Aristote ne serait peut-être pas parvenu avec autant de clarté et d'exactitude à mettre au point le processus de la connaissance et ce qu'il suppose pour se réaliser.

André Samson.

The Order of Generation and Time in the Philosophy of Saint Thomas Aquinas

The order of the world as we know it is an order of process. This is not a new discovery, but we have given the idea a much more extensive and a much more radical application than ever before. The ancients were very much aware of change and movement in the world, but never did they consider it as all-pervasive as we do. They saw motion in the heavens, but for them it was only local motion and this motion followed an unchanging pattern and the heavenly bodies themselves were considered unchanging and unchangeable, above the order of generation and corruption which was characteristic of the bodies here below. In the Aristotelian cosmology, the heavenly bodies, unchanging and regular as they were thought to be, became the principles of all natural motion here below, but they did not enter into the process themselves. Two orders of bodies were thus distinguished, one in process and the other above the process. Formerly also, the realm of nature and the realm of history were considered apart from one another. But now all this has changed. We see all bodies as belonging to one single order of nature, and this order is an order of process. Nature is not something apart from history, but it has its own history, and we tend to look upon history much in the way that we view nature, as a process that has started someplace and is going someplace. Philosophy used to be concerned with natures and now it is concerned with history. Science itself has become as much a natural history as a study of its laws, and all those who are opposed to this view of nature are definitely on the defensive.

St. Thomas was very much a man of his times, and as such he shared the ancient view of nature. In cosmology, as is well known, he went along with the Aristotelian view of the world for the most part, except for the question of duration. Aristotle had argued that the world is eternal, but St. Thomas believed that it had a beginning and an end in time. "A tota creatura corporea tolletur generationis et corruptionis status. Et hoc est quod dicit Apostolus, Rm 8 21, quod *ipsa creatura liberabitur a servitute corruptionis in libertatem gloriae filiorum Dei.*"[1] This belief, however, was not without affecting his understanding of nature. It is our intention here to study precisely how it did. Everyone knows that St. Thomas differed from Aristotle with regard to the duration of the world, and Thomists today are very much given to emphasizing that St. Thomas's understanding of the

1. *Cont. Gent.*, IV, c.97, n.4285.

world was quite different from that of Aristotle, but very few have tried to bring out just how. This difference, it seems to us, centers about the manner of conceiving the order of generation and its place in the cosmos. To bring this out could prove very instructive for our own way of viewing nature.

Thomists today like to insist on the differences that separate St. Thomas from Aristotle, but this was not the case with St. Thomas himself. Where he differed from the Philosopher quite clearly, he said so explicitly, but for the rest he tended to find what he had to say in philosophy in the Philosopher. And even when he did take exception to Aristotle, he usually found his reasons for doing so in the Philosopher himself. This, we hope, our study will show, at least with regard to the subject at issue. St. Thomas saw no reason for rejecting the supposition that the heavenly bodies were incorruptible. He accepted it willingly enough, all the more so because, connected with this was also the supposition that they embodied the universal causes of nature. He did not think these bodies had come to be by way of a process, but that they were immediately created by God as they are now. He also tended to think that the order of the species here below had been as he knew it right from the start, or nearly so, though this was less certain in his mind and he tended to allow as much room for the action of things in constituting the universe as he could reasonably, given the way he saw things. For the most part, like Aristotle, he saw nature as in a more or less constant state, a state of flux, of generation and corruption, with different individuals succeeding one another in time to maintain a certain permanence in the species.

But all this he saw as ordered to man in a very special way, something which Aristotle did not see as clearly. While Aristotle remained with a cyclical understanding of process in nature, St. Thomas saw a direction in this process as a whole, a line going from the lowest to the highest, a line which had something to do with time. Aristotle's understanding of nature as a whole remained too abstract. St. Thomas made it more concrete and in doing so found something which was more reasonable. Let us see in what way.

I. GENERATION AND NATURE AS A WHOLE

Let us begin by examining how St. Thomas understood generation and its place in nature as a whole. In its broadest and most basic meaning, generation is essentially a process, a passage from incompletion to completion.

Generatio nihil est aliud quam via quaedam de incompleto ad completum, oppositum scilicet ad incompletum praeexistens. Termini enim generationis sunt privatio et forma ; materia autem secundum quod existit sub privatione habet rationem imperfecti ; secundum autem quod existit sub forma habet rationem perfecti et sic patet quod generatio est via sive transmutatio de imperfecto ad perfectum oppositum.[1]

This covers practically every kind of natural coming to be. The example of it that recurs most frequently when St. Thomas discusses the order of generation is the generation of the perfect or full grown man. "Generatio semper procedit ab imperfecto ad perfectum, sicut vir est posterior generatione quam puer, nam ex puero fit vir, et homo posterius generatione quam sperma. Et hoc ideo quia vir et homo iam habent speciem perfectam, puer autem et sperma nondum."[2] The point of adding *homo* to *vir* in the example was perhaps to bring it closer to nature, lest we think that the idea of generation at issue depend rather on the growth of reason in the development from childhood to manhood, and not on a natural growth as well. The development of reason in man, though it transcends nature, is rooted in the development of nature. Generation is fundamentally a natural process, and the word 'nature' itself, in what is to us its first and most fundamental meaning, refers to the generation of living things.

We should note particularly the insistence on order in this definition. An order between imperfect and perfect is presupposed, an order of time which is different from another order in nature. What comes after in generation, *posterior generatione*, also comes after in time, *posterior tempore*. The other order in nature is generally referred to as the order of perfection or, simply, as the order of nature. This order is somewhat of an absolute, an order of being prescinding from becoming. It starts from the perfect, from the term of becoming, and so it is the reverse of the order of generation. In this order the perfect is prior to the imperfect, as act is prior to potency.[4]

Absolutely speaking, the perfect is always prior to the imperfect, if not in the same individual, at least in the order of nature as a whole. "Omne quod fit, dum fit, est imperfectum, et tendit ad principium. idest ut assimiletur principio suae factionis, quod est primum naturaliter. Ex quo patet id quod est posterius in generatione, est prius secundum naturam."[5] In one and the same individual which comes to be by a natural process, perfection may appear last, but this perfection is only an assimilation, in the individual, to the perfection that was already possessed by the principle of its coming to be. "Perfectum quidem est prius imperfecto, in diversis tempore et

1. *In De Causis*, lect.25, n.407.
2. *In IX Metaph.*, lect.8, n.1856.
3. Cf. *In V Metaph.*, lect. 5, n.808.
4. Concerning the priority of act over potency in general, cf. *In IX Metaph.*, lect.7-9. Here we shall use only what is necessary for understanding the order of generation in these lessons.
5. *In VIII Phys.*, lect.14, n.1094(9).

natura ; oportet enim quod perfectum sit quod alia ad perfectionem adducit ; sed in uno et eodem imperfectum est prius tempore, etsi posterius natura."[1]

All this, however, implies by no means that the order of generation is not a natural order. If we prescind from the order of efficient causality, which is what governs our naming the order of perfection the order of nature, and look only to the coming to be of an individual, it will appear that the order of generation is no less natural than generation itself. So much so that, if something appears late or at the end of a natural process of generation, it will be said to be more perfect than what came before it. "Via generationis ab imperfectioribus ad perfectiora pervenitur, et hoc ordine quod quae imperfectiora sunt, prius ordine naturae producuntur."[2] Thus, according to the order of generation, the imperfect is prior to the perfect and potency is prior to act. "Si enim accipiamus hunc hominem qui est actu homo, fuit prius secundum tempus materia, quae erat potentia homo."[3]

The other important thing to note about the order of generation is that it is not only temporal, but also gradual. St. Thomas recalls this most frequently in connection with man's need for time in learning, in getting to know and understand the truth of things. "Sicut in rebus quae naturaliter generantur, paulatim ex imperfecto ad perfectum pervenitur ; sic accidit circa cognitionem veritatis."[4] Such a gradual process is not absolutely necessary for knowing the truth, but it is for man, since he has to pass from potency to act in the exercise of his intellect, something that makes his understanding like the things of nature. "Pertingit etiam ad intelligentiam veritatis cum quodam discursu et motu arguendo."[5] It takes time to learn, to acquire a discipline, just as it takes time to pass from potency to act. Even in supernatural revelation, God respects this order that is so natural to man : "In qua quidem revelatione, secundum congruentiam hominis, quidam ordo servatur, ut paulatim de imperfecto veniat ad perfectum : sicut in ceteris rebus mobilibus accidit."[6] The point we wish to make is in this last phrase : this is what happens in all the things of nature. "Nec perfecti actio ab imperfecto statim recipitur in principio perfecte ; sed primo quidem imperfecte postea perfecte, et sic deinde quousque ad perfectionem perveniat. Et hoc quidem manifestum est in omnibus rebus naturalibus quae per successionem temporis aliquam perfectionem consequuntur."[7]

1. *IIIa*, q.1, a.5, ad 3.
2. *De Pot.*, q.4, a.2, ad 33.
3. *In IX Metaph.*, lect.7, n.1848.
4. *In Job*, prooem, n.1.
5. *Ia*, q.79, a.4, c.
6. *Cont. Gent.*, IV, c.1, n.3342.
7. *De Ver.*, q.14, a.10, c.

All this is fairly easy to understand when we have to do only with individuals. But when we try to apply it to nature as a whole difficulties begin to appear. If nature as a whole goes through a process of generation, passes from imperfect to perfect, what becomes of the natural priority of perfection according to the order of efficient causality? Where shall we find a thing in act to bring, not some individual or other but nature itself from potency to act? Will we have to presuppose the existence of pure potency?[1] These difficulties bring up the metaphysical question of creation. But can we speak of generation for nature as a whole without going into this realm of metaphysics? Is it possible to treat of it only from the viewpoint of nature itself?

For St. Thomas the question was not as embarrassing as it might be for us. He had more than one way of accounting for the appearance in nature of the imperfect before the perfect. One of these brought Aristotle's understanding of the heavenly bodies into play. These were a part of nature, but they were ever in act as principles of generation. When there seemed to be nothing here below to explain the generation of something, as for example maggots coming from carrion, St. Thomas fell back on the supposed influence of the heavenly bodies. Against the idea of a partial evolution in the world, in connection with the *opus sex dierum*, he brought up the objection that it did not seem possible for certain parts of the universe to appear before others, especially not the inferior, the less perfect, before the superior and more perfect. One answer to this difficulty, he said, could be that there were always the principal parts of the universe to explain such an order in generation. "Potest dici, quod in illo rerum principio fuerunt corpora caelestia et omnia elementa secundum suas formas substantiales cum Angelis simul producta, quae sunt partes principales universi ; in subsequentibus autem diebus fuit in ipsa natura iam producta aliquid factum, pertinens ad perfectionem et decorum ipsarum partium iam productarum."[2]

But even though St. Thomas thought of the heavens as universal active principles in nature, he still spoke of the order of generation as a whole with its own active principles. His manner of doing so might help to take us out of our embarrassment, for we could extend what he says of the order of generation as a whole simply to the whole of nature, since the incorruptible heavens were not seen as intrinsic principles of the order of generation. Thus, if we left these incorruptible bodies out

1. *De Spir. Creat.*, q.un., a.1, answers this question very well in terms of what we have just been considering. "Licet enim in uno et eodem, quod quandoque est in actu quandoque in potentia, prius tempore sit potentia quam actus ; actus tamen naturaliter est prior potentia. Illud quod est prius, non dependet a posteriori, sed e converso. Et ideo invenitur aliquis primus actus absque omni potentia ; nunquam tamen invenitur in rerum natura potentia quae non sit perfecta per aliquem actum ; et propter hoc semper in materia prima est aliqua forma."
2. *De Pot.*, q.4, a.2, ad 3.

of consideration, we could simply equivalate nature and the order of generation, something that is not unjustified if we recall the first and primordial meaning of nature for Aristotle and St. Thomas. St. Thomas himself was inclined to slip in this direction when he did not have the *De Caelo* too much in mind, as can be seen in the other answer he proposed to the difficulty we just saw against a certain process in the formation of the universe. "Non est eadem dispositio rei iam perfectae, et prout est in suo fieri ; et ideo quamvis natura mundi perfecti et completi hoc exigat quod omnes partes essentiales universi sint simul, potuit tamen aliter esse in ipsa mundi inceptione ; sicut in homine perfecto non potest cor esse sine aliis partibus, et tamen in formatione embrionis cor ante omnia membra generatur."[1]

The important thing here is to cut the order of generation loose, as it were, from the incorruptible heavens, to see it as a whole with a certain autonomy, independently of the supposed influence of the heavens. St. Thomas did this, at least in part, in answering an objection against *Genesis* for placing the appearance of animals that walked the earth after that of fishes and birds. Arguing from the order of nature understood as the order of perfection, the objection claimed that the latter animals, since they were on the whole more perfect and closer to man, should have appeared first. After giving an answer based in part on the *De Caelo*, St. Thomas goes on to add the following reflection on the order of generation as an order of nature.

> Posset etiam dici, quod via generationis ab imperfectioribus ad perfectiora pervenitur, et hoc ordine quod quae imperfectiora sunt, prius ordine naturae producuntur. In via enim generationis quanto aliquid perfectius est, et magis assimilatur agenti, tanto tempore posterius est ; quamvis sit prius natura et dignitate. Et ideo, quia homo perfectissimum animalium est, ultimo inter animalia fieri debuit, et non immediate post corpora caelestia, quae cum corporibus inferioribus non ordinantur secundum viam generationis, cum non communicent in materia cum ipsis, sed habeant materiam alterius rationis.[2]

We shall see more of man's foremost role in the order of generation later on. But for the moment let us see how the inferior bodies constitute an order in which the incorruptible bodies have no place.

II. COMMUNITY IN MATTER AND ORDER

In the *De Caelo*, in order to bring out the unicity of the universe, Aristotle introduces the idea of a body constituted from the whole of its matter — *ex tota sua materia*.[3] The same idea could be helpful

1. *De Pot.*, q.4, a.2, ad 3.
2. *Ibid.*, ad 33.
3. Cf. *In I De Caelo*, lect.19.

here to understand the order of generation as a whole, or more exactly, the order of all things subject to generation and corruption. What allows us to say this is a certain community, a community of matter, in which all things corruptible have a part. The heavenly bodies as Aristotle and St. Thomas conceived them had no part in this community, though they were truly material. Their matter, which was truly the subject of their form or actuality, was of a different kind, *alterius rationis*, as the text just quoted puts it, from the matter of things here below. It had no privation, as do the things subject to corruption. "Non tamen oportet quod istud subiectum vel materia habeat privationem : quia privatio nihil aliud est quam absentia formae quae est nata inesse, huic autem materiae vel subjecto non est nata inesse alia forma, sed forma sua replet totam potentialitatem materiae, cum sit quaedam totalis et universalis perfectio."[1]

The reason for thinking of heavenly form and matter in this way, St. Thomas goes on to point out, is that their active power, which emanates from their form, is universal and not particular like the power of the inferior bodies. The form of the latter is particular and as such it cannot exhaust the potentiality of its matter ; "quorum formae, tanquam particulares existentes, non possunt replere totam potentialitatem materiae ; unde simul cum una forma remanet in materia privatio formae alterius, quae est apta nata inesse."[2]

Hylomorphism is often presented nowadays in rather static fashion, but we see here that, understood in the way of Aristotle and St. Thomas, that is, along with its essentially correlative privation, it is quite dynamic. No one believes in the incorruptibility of the heavenly bodies any longer, but many still explain Aristotelian form and matter without any reference to privation, in a way that would apply only to the heavenly bodies in the ancient perspective of Aristotle and St. Thomas. That certainly was not the first, nor the most primordial, nor the most perennial meaning of these notions. We shall not understand the community in matter of all things subject to generation and corruption unless we first understand that the principles of change or generation are three, not just matter and form, but privation also.[3] It is the three taken together that make it possible for us to conceive an order of generation as a whole, as St. Thomas did, through the notion of mutual transformation or transmutation.

1. *In I De Caelo*, lect.6, n.63(6).
2. *Ibid.*
3. How this fundamental position is to be understood will be found in Book I of the *Physics*. The importance of this Book for understanding truly Aristotelian hylomorphism cannot be over-emphasized. It is too often neglected or studied only for its historical value as a discussion of Aristotle's predecessors. The doctrine given there governs a good deal of Aristotelian thinking. St. Thomas's own commentary highlights the idea of three principles for generation.

Leaving aside the ancient idea of the constitution of heavenly bodies, since it does not enter into what we mean by transmutation here, "non est subiecta (eorum materia) transmutationi quae est secundum esse,"[1] let us see what this community in matter consists in for St. Thomas.

Unumquodque elementorum est in alio in potentia : et quae sic se habent, adinvicem generari possunt. . . . quia communicant in una materia prima, quae eis subiicitur, et in quam sicut in ultimum resolvuntur : omnia enim quorum materia est una communis, sic se habent quod unum eorum est in potentia in alio ; sicut cultellus est in potentia in clavi, et clavis in cultello, quia utriusque materia communis est ferrum.[2]

Let the homey example serve as a warning against too facile, and oftentimes false, an identification of prime matter with such things as the particles of modern physics. The transformation of a key into a knife, or of a knife into a key, may not be substantial changes, but the analogy serves to illustrate the idea of matter as substratum of change, which is what interests us here. For St. Thomas the mutual generation of the elements from one another was a substantial change. Just what would be a substantial change in terms of modern physics is a problem we do not have to go into here. There are many other changes in nature that St. Thomas considered substantial and many of them, such as the coming to be or the ceasing to be of an animal, can still be considered as such. The point is that in any substantial change the ultimate substratum is prime matter, something that is commonly found in all physical substances, not as common matter, to be sure, but as this matter informed by this form. While this matter is informed by this form, however, it remains in potency to other forms. The key can become a knife and the knife can become a key because, while it has one form, the iron of the knife remains in potency to another shape. This potency is the iron inasmuch as it can have diverse shapes or external forms, and the negation of the shape of a knife in the iron of the knife is called a privation. Now, the iron of the knife can also be converted into non-iron, and this potency in the iron is called its prime matter ; and that which makes the iron to be iron, and not some other metal or substance, for example, is its substantial form, and the negation of this form is the privation of this same form. Now, inasmuch as iron can become non-iron, its matter is an order to some other basic form. And that order is an order of nature in the first meaning of the term, for the form of which matter is so "deprived" is one which it is naturally able to have : "simul cum una forma remanet in materia privatio formae alterius, quae est nata inesse."

1. *In I De Caelo*, lect.6, n.63(6).
2. *In I Meteor.*, lect.3, n.16(2).

This cannot be understood independently of finality in nature, but it is important to see that order truly begins in matter, a "first" principle of nature as well as the final end, though subordinate to the latter. St. Thomas makes this quite clear. "Cum vero, ut dictum est, quaelibet res mota, inquantum movetur, tendat in divinam similitudinem ut sit in se perfecta : perfectum autem sit unumquodque inquantum fit actu : oportet quod intentio cuiuslibet in potentia existentis sit ut per motum tendat in actum."[1] Prime matter does not exist as such, and pure possibility is not a principle of order. But this is not what we are talking about. We are talking of things actually in a process of changing, of the matter which actually exists and of the real possibilities that are present, according to an order, in this matter.

The idea of the four elements constituting together a certain totality surely had a great deal to do with St. Thomas's conceiving the order of generation as a whole, but what did so more than that was an order of perfection which he saw among the various kinds of physical objects, an order which went from the elements to inanimate compounds, to plants, animals, and to man. He was such more emphatic in affirming the order of generation as a whole than Aristotle, and we shall see why when we see how he departed from Aristotle with regard to the perpetuity of this order, but let note how he found the notion already in the Philosopher.

We see the notion in Book VIII of the *Physics* where Aristotle is trying to prove that local motion is the most perfect kind of change, with an argument taken from the order of generation. This, he says, is seen not only in one and the same individual, but also in the whole progress of things generable in nature. "In processu generationis in omnibus generabilibus ultimo invenitur loci mutatio, non solum in eodem, sed etiam considerando totum progressum naturae generabilium ; inter quae quaedam viventia sunt penitus immobilia secundum locum . . . sed perfectis animalibus inest motus localis."[2] We are not far from a notion of evolution in nature as a whole here. We can see also that the consideration of the *totus progressus naturae generabilium* given here must have influenced the answer we saw given above to the objection that, according to the order of nature, the walking things of earth should have appeared before fowl and fish.[3]

Yet it is remarkable to note how little attention this idea of a process in nature as a whole was given by Aristotle, even when he was considering cosmic motion as a whole. We see it introduced here as the supposition in an argument to prove something else, but never did it receive any prominence in Aristotle, nor do we find

1. *Cont. Gent.*, III, c.22, n.2030.
2. *In VIII Phys.*, lect.14, n.1004(9).
3. Cf. *supra*, p.50.

it in the discussions on the duration of the heavenly motions. Aristotle seems to have been so absorbed with the circularity of his cosmic order that he did not give sufficient attention to the aspect of time implied in the argument which he used to prove the superiority of local motion in the very Book where he argues for the eternity of the heavenly motions. St. Thomas, however, who had a different understanding of time, one that was not cyclical but included a beginning and an end,[1] did not fail to see the significance of the idea and it became a very important part of his outlook for the universe as a whole, as we see most clearly in Chapter 22 of *Contra Gentiles* III. Nor did he fail to see the implications of this idea, as we shall see, in connection with the supposed eternal motion of the heavens.

In the *De Generatione* Aristotle had been faced with the question of how generation could go on forever. From the *Physics* and the *De Caelo* it was supposed that the world and the heavenly motions were eternal. The latter were thought to be causes of generation here below and so the order of generation also had to be eternal. " Oportet enim ponenti mundum et motum perpetuum, ponere etiam generationem perpetuam."[2] But this position was not without a certain difficulty for Aristotle, for if the process was supposed to have gone on from all eternity, then corruption, the correlative of generation, would also have to be from all eternity. And if this passing away into nothing were from all eternity, how could there be anything left of a world that was also supposed to be finite? Why was not the world sensibly smaller as time went on? Why did its state appear to be more or less steady?

Aristotle's answer to the difficulty is well known. He distinguished corruption from pure and simple annihilation. Just as the generation of one thing always entails the corruption of another, so also the corruption of one thing entails the generation of another. And so the process can go on indefinitely ; as St. Thomas explains : " Ideo necesse est esse transmutationem generationis et corruptionis indeficientem vel inquietam, idest non cessantem, quia corruptio huius est generatio alterius, et e converso."[3] There is no need to make creation intervene here to account for the steady state of the cosmos. Corruption is not passing away simply to nothing, but to the non-being only of the thing being corrupted. This being is passing away into being in matter only in potency, while the matter itself becomes subject to another form, the form which makes it to be in act what it is. Even under this new form, however, matter is also said to be subject to privation, privation of the form it had previously, or of other forms, just as it could be said to be deprived

1. Cf. *In VIII Phys.*, lect.2 ; *In V Metaph.*, lect.13.
2. *In De Gen.*, lect.7, n.52(1).
3. *Ibid.*, n.57(6).

of the form it now has when it was subject to the form it formerly had. Thus, what passes from being is not simply cut off from the totality of nature, for, while what passes away ceases to be, something else comes to be at the same time. Though matter cannot actually be without form, still, even considered in itself, it is not purely negative, but something positive existing as substratum for the community of things generable and corruptible.

> Unde non potest materia remanere quin sit subiecta alicui formae : et inde est quod uno corrupto aliud generatur, et uno generato aliud corrumpitur : et sic consideratur quidam circulus in generatione et corruptione, ratione cuius habet aptitudinem ad perpetuitatem.[1]

The community of matter alone is not enough to justify positing the process of generation and corruption as unending or eternal in fact. It only establishes an aptitude for such perpetuity. But with the perpetuity of the heavenly motions also affirmed, the supposed active universal principle of all changes in nature in the Aristotelian cosmological system, we are brought to an affirmation of actual perpetuity in the process of generation and corruption, and not a merely possible one, something which is not in accordance with the Faith — " quod tamen fides catholica non supponit."[2]

In taking exception to the Philosopher on this score, however, St. Thomas does not simply reject the entire system. He did not think the eternity of the world was necessarily implied in the system, and now we shall see him adopt the system both to explain things in the present state of the world, where the cycle of generation and corruption is still going on, and to infer the cosmic shape of things to come in its final state. With the understanding that the process is not in fact eternal, St. Thomas could agree on the general end of nature in generation, the permanence of things subject to corruption as a whole. " Propter hoc enim est generatio et corruptio mutua in istis inferioribus, ut conservetur perpetuum esse in eis."[3] The form of a thing is the end of its particular process of generation, but that is not the end of natural generation as a universal process ; that is only a particular effect. " Finis naturae in generatione non est reducere materiam de potentia in actum, sed aliquid quod ad hoc consequitur, scilicet perpetuitas rerum, per quam ad divinam similitudinem accedunt."[4] Things here below are far removed from the incorruptible First Principle and so they are corruptible. Each one of them comes to be and ceases to be, and this imperfection in being is also an imperfection in assimilation to God. Nature overcomes

1. *In De Gen.*, lect.7, n.57 6).
2. *Ibid.*
3. *In II Phys.*, lect.12, n.254(5).
4. *Cont. Gent.*, IV, c.97, n.4287b.

this imperfection, in part at least, by the process of generation. Individuals come and go, but their species of being go on, realized ever anew in a succession of individuals in time.

The permanence of the process assures the permanence of the corruptible species as long as the process goes on. But when the process comes to a halt, most of these corruptible species will simply disappear from the world.[1] Those that will remain, those that somehow rise above corruption, will do so by reason of their connection with the essential perfection of the universe,[2] for the universe itself is simply for ever.[3] The latter will include not only man, by reason of his rational soul and the very special place he holds in the universe, but also the four elements, because taken together, as a totality, they are perpetual, though not as parts interacting with one another : " secundum totum, licet non secundum partem, quia secundum partem corruptibilia sunt."[4]

The *per se* order of nature is found in the different species. Individuals of the different species participate in this order only indirectly, *per accidens*, but in a true fashion ; as members of one species or another they enter into the *per se* order of nature. Furthermore, the permanence of the *per se* order, at least as far as the corruptible species are concerned, depends on the succession in time of individuals of the various species. Such is the order of things subject to generation and corruption. Nature is said to contain all this, because it is principle of this twofold order.

Natura continet generationem idest res generatas, tamquam principium generationis existens : particularis quidem Natura generationis particularis ; universalis autem Natura, quae est in Corpore caelesti, comprehendit universaliter omnem generationem, sicut suum effectum.[5]

III. THE PRINCIPLES OF ORDER IN NATURE

There is an order in things generated because there is an order of causes, principles of this order. The principles are found both in particular things and in nature as a whole. Those in particular things are subordinate to those in nature as a whole. As we know, St. Thomas, following Aristotle's *De Caelo*, pictured this subordination in terms of the inferior bodies being influenced by the superior bodies. " Sicut caelum est universale activum eorum quae generantur, ita

1. Such will be the case for animals, plants and mineral compounds. Cf. *De Pot.*, q.5, a.9, c. ; *Comp. Theol.*, c.170, nn.335-336 ; *Cont. Gent.*, IV, c.97, n.4289.

2. Cf. *De Pot.*, q.5, a.7 and 10 ; *Comp. Theol.*, c.170, nn.335-336.

3. Cf. *De Pot.*, q.5, a.4 ; *Ia*, q.104, a.4.

4. *Cont. Gent.*, IV, c.97, n.4288b.

5. *In De Causis*, lect.9, n.221.

elementa sunt eorumdem universalis materia."[1] "Ad corpora animata, terra et alia elementa habent habitudinem materiae, corpus autem caeleste habitudinem agentis."[2]

We must note carefully here how the idea of matter is used. We do not have to do with prime matter now. Though they were as matter in relation to the activity of the heavens, the elements and the other particular things of nature here below were not without their own form and their own particular principles of activity. St. Thomas insisted on this repeatedly when arguing against the Arab position on the unicity of the agent intellect, common to all men.

Sicut et in aliis rebus naturalibus perfectis, praeter universales causas agentes, sunt propriae virtutes inditae singulis rebus perfectis, ab universalibus agentibus derivatae ; non enim solus sol generat hominem, sed est in homine virtus generativa hominis ; et similiter in aliis animalibus perfectis. Nihil autem est perfectius in inferioribus rebus anima humana. Unde oportet dicere quod in ipsa sit aliqua virtus derivata a superiori intellectu, per quam possit phantasmata illustrare.[3]

Thus each particular thing of nature has within itself the principle of its activity. This is true not only of the higher animals, but also of the elements, as St. Thomas conceived them, with the understanding of course that the activity of the elements was far inferior to that of animals, and that the elements entered into the composition of the animals.[4]

When St. Thomas uses the term matter as he does in the texts we saw a moment ago, he is thinking generally in terms of order, and more precisely, of subordination. One individual generates another. This generates that, and that depends *per se* on this. But this is far from being the whole of the order of nature. The intention of the particular agent in generation is restricted to its species, but the universal intention in nature concerns the whole of corporal substances. Universal

1. *De Pot.*, q.5, a.7, c.

2. *In II De Caelo*, lect.18, n.471(14).

3. *Ia*, q.79, a.4, c. Cf. also *De Spir. Creat.*, q.un., a.10, c. ; *Q.D. De Anima*, q.un., a.5, c. Note that St. Thomas's argument is not only from analogy with the things of nature, but also from the order of perfection in the universe. Man, who is the most perfect being in nature, should have at least as much as lower animals by way of proper principles in the activity that is most essential to him as a rational animal. According to St. Thomas, many errors on the nature of man stem from an error in situating him in the order of being. Materialism lowers him. Angelism tries to raise him above what he is and ends up doing the same as materialism. Cf. *Cont. Gent.*, II, c.3, n.868 ; IV, c.54, n.3924.

4. With regard to gravity and levity, the two basic motions proper to the elements and found in all bodies here below, a further distinction is to be made. This natural motion flows from the form of each being, but the form must still be viewed as belonging only to the passive principle of activity in nature, while the active principle is the being which brings the thing moved into being and moves it. Cf. *In II Phys.*, lect.1, n.144 4 .

causes must come into play not only to explain the origin of species as such, whether it be in this, that, or the other individual, but also for ordering, preserving, multiplying, and augmenting things generable and corruptible as a whole : " universalis natura comprehendit universaliter omnem generationem, sicut suum effectum."[1]

Sicut igitur agentis particularis in istis inferioribus intentio contrahitur ad bonum huius speciei vel illius, ita intentio corporis caelestis fertur ad bonum commune substantiae corporalis, quae per generationem conservatur et multiplicatur et augetur.[2]

Thinking in terms of the Aristotelian framework, an ancient commentator, Alexander, had suggested that, since the elements were supposed to have within themselves their own principles of activity, they might be able to interact among themselves without the influence of the heavens. Harmless as the position might have seemed, or even commendable as it might have been for insisting on the things of nature here below having their own proper principles of activity, St. Thomas refused to accept it for a reason that involved the order of nature as a whole. " Melius est dicere quod, cessante motu caeli, omnis motus corporum inferiorum cessaret, ut Simplicius dicit : quia virtutes inferiorum corporum sunt sicut materiales et instrumentales respectu caelestium virtutum, ita quod non movent nisi notae."[3]

The association of the idea of matter with instrumentality in this text brings us to what is in the back of St. Thomas's mind when he speaks of things here below as matter with respect to the agency of the heavenly bodies. He is not denying the causation of the inferior bodies, but he is thinking of their subordination to the more universal causes. *De Pot.* q.5, a. 8 shows that 'acting' and 'undergoing', *actio et passio*, among the elements, will cease in the final state of the universe when the heavenly motions come to a halt, though the elements themselves will continue to subsist. The reason given is quite simple. Real as the causation may be among subordinate causes, it simply ceases to be when the superior cause withdraws its causation. " Quando causa prima retrahit actionem suam a causato, oportet etiam quod causa secunda retrahat actionem suam ab eodem, eo quod causa secunda habet hoc ipsum quod agit, per actionem causae primae, in cuius virtute agit."

For St. Thomas, however, the order of nature which he adopted from Aristotle was not without certain other complications. He did not think the heavenly bodies were animated, as Aristotle did, and yet, though for him a soul was more perfect than the form of any nonliving thing, he had to say that the form of a heavenly body was

1. *In De Causis*, lect.9, n.221.
2. *Cont. Gent.*, III, c.22, n.2029.
3. *In II De Caelo*, lect.4, n.342(13).

somehow more perfect thant the soul of an animal here below, since the animal was corruptible and the heavenly body supposedly was not. He solved this difficulty by explaining that, though the form of a heavenly body was not more noble than the soul of an animal *simpliciter*, it was so *quantum ad rationem formae*, since the form of a heavenly body exhausted all the potentiality of its proper matter, whereas the soul did not, whence the corruptibility of the animal. Also, he added, the mover of the heavens was more noble.[1]

But as St. Thomas moved to take exception to the Philosopher concerning the end of the heavenly motions he had to proceed more carefully. He wanted to maintain that the end intended in these motions was the generation of human beings. According to him, the position of the philosophers had been simply that the end was assimilation to God through causation, *similitudo ad Deum in causando*. One of the things to be avoided in discussing the end of the heavenly motions was to place that end in something lower than the heavenly bodies themselves : "ut non ponatur motus caeli esse propter aliquid vilius ; nam cum finis sit unde ratio sumitur, oportet finem praeeminere his quae sunt ad finem. Potest autem contingere quod vilior sit terminus operationis rei nobilioris, non autem ut sit finis intentionis."[2] The position of the philosophers just mentioned easily avoided this pitfall : the term of the operation was indeed the generation of things here below, but the end was assimilation to God in the heavenly body itself. This position is not as pat as it sounds at first, as St. Thomas will point out, but let us examine how he gets around the difficulty inherent in his position without denying the supposed superiority of heavenly bodies.

Quite simply it comes down to recognizing that, after all, a rational soul is more noble than any body, including celestial bodies. "Anima namque rationalis quolibet corpore nobilior est, et ipso caelo."[3] If it was true that any soul might be more noble in itself than the form of a heavenly body, this certainly was true of a rational soul. Hence there was no inconvenience in saying that the end of the heavenly motions was the multiplication of rational souls — *multiplicatio rationalium animarum*.

The apparent inconvenience stemmed from the fact that anything produced by generation seemed to belong somewhere in between the elements and the heavenly bodies, above the former but below the latter. "Agens autem nobilius est facto, sed factum nobilius est materia : unde etsi caelum habet nobiliorem formam quam corpora

1. *Ia*, q.70, a.3, ad 2. The mover of the heavenly bodies, it will be remembered, is an intelligence ; for the inferior bodies it is other bodies here below and the heavenly bodies, all acting as instruments of the intelligence that rules nature as a whole.
2. *De Pot.*, q.5, a.5, c.
3. *Ibid.*

animata, elementa tamen habent formam minus nobilem."[1] But whether or not other animals fell simply into this in-between category of perfection, man certainly did not, because he was not as to all that he is the product of a process of generation. His soul is spiritual and it transcends the order of generation. It can be produced only by creation. It is immediately created by God to inform its body, and it is by reason of the body that the whole is said to be produced by generation. The motion of the heavens was thus ultimately ordained to producing the conditions of such a multiple creation, the generation of many individuals of the human species. To prove his point St. Thomas had to argue from the natural dynamism in the order of generation.

Finis motus caelestis non est reduci de potentia in actum, sed aliquid consequens ad hanc reductionem, scilicet assimilari Deo in causando. Omnia autem generabilia et corruptibilia, quae causantur per motum ad hominen ordinantur quodammodo sicut in finem.[2]

Such a procedure as this was necessary, since the nature of the heavens was considered above human ken in itself. But it was also quite legitimate within its systematic frame-work, since generation was considered to be the effect of heavenly motion.

IV. THE ORDER OF THE MATERIAL CAUSE

Thus, complications in the Aristotelian theory of the heavens send us back to the order of generation to discover what nature as a whole is oriented to. Here what we have to guide us is not the order of the agent cause, according to which what is more perfect is prior in nature, since what is imperfect is not brought to perfection except by some pre-existing perfect being, but the order of the material cause, according to which what is imperfect is prior and proceeds from imperfect to perfect.[3] But this is the order with which we are more familiar in any case. In this order what comes last is what is more and hence that to which everything tends.

Quanto igitur aliquis actus est posterior et magis perfectus, tanto principalius in ipsum appetitus materiae fertur. Unde oportet quod in

1. *In II De Caelo*, lect.18, n.471(14 .
2. *Cont. Gent.*, IV, c.97, n.4287b.
3. "Ad generationem naturalem duae causae praeexiguntur, scilicet agens et materia. Secundum ergo ordinem causae agentis, naturaliter prius est quod est perfectius, et sic natura a perfectis sumit exordium, quia imperfecta non ducuntur ad perfectionem nisi per aliqua perfecta praeexistentia. Secundum vero ordinem causae materialis, prius est quod est imperfectius, et secundum hoc natura procedit ab imperfecto ad perfectum" (*IIa IIae*, q.1, a.7, ad 3). About the exigency for an exterior agent, cf. also *In IX Metaph.*, lect.7, n.1848.

ultimum et perfectissimum actum quem materia consequi potest, tendat appetitus materiae quo appetit formam, sicut in ultimum finem generationis.[1]

Matter is in potency to many forms, but it is not in potency to all forms indiscriminately. There is an order that this potency must follow. Anaxagoras had maintained that anything could come from anything, but, according to the natural order of generation, this could not be.

Quamvis autem generatio fiat ex non ente quod est in potentia, non tamen fit quodlibet ex quocumque ; sed diversa fiunt ex diversis materiis. Unumquodque enim generabilium habet materiam determinatam ex qua fit, quia formam oportet esse proportionatam materiae. Licet enim materia prima sit in potentia ad omnes formas, tamen quodam ordine suscipit eas. Per prius enim est in potentia ad formas elementares, et eis mediantibus secundum diversas proportiones commixtionum est in potentia ad diversas formas : unde non potest ex quolibet immediate fieri quodlibet, nisi forte per resolutionem in primam materiam.[2]

There has to be a certain proportion between the form and the matter of any particular thing. That is why everything in nature has its proper form and its proper matter. Though it is always possible, in the abstract, to resolve a material being into prime matter, the real order does not allow leaps from the highest to the lowest without mediation and continuity. The highest form that is to be found in matter is that of man. " Post hanc formam non invenitur in generabilibus et corruptibilibus posterior forma et dignior."[3] The lowest form according to St. Thomas, was that of the elements. Matter itself cannot be in act except through a form. Though all things subject to generation and corruption communicate in the same matter, there is an order in this communication determined by the forms that dispose matter progressively and gradually from the less perfect to the more perfect.

In actibus autem formarum gradus quidam inveniuntur. Nam materia prima est in potentia primo ad formam elementi. Sub forma vero elementi existens est in potentia ad formam mixti : propter quod elementa sunt materia mixti. Sub forma autem mixti considerata, est in potentia ad animam vegetabilem : nam talis corporis anima actus est. Itemque anima vegetabilis est potentia ad sensitivam ; sensitiva vero ad intellectivam.[4]

The very process of generation for each man is an instance of this, recapitulating, as it were, the whole order of generation. First comes

1. *Cont. Gent.*, III, c.22, n.2030a.
2. *In XII Metaph.*, lect. 2, n.2438.
3. *Cont. Gent.*, III, c.22, n.2030c.
4. *Ibid.*, n.2030b.

the fetus which lives like a plant ; then comes a more properly animal life ; and finally the life proper to man, rational activity. St. Thomas is not given to minute analyses in this regard. He is usually satisfied with sketching the broad lines of what he intends.

This might seem regrettable to some, and to bring out some of the details St. Thomas might have had in mind we could go to the *De Anima*[1] or to the *Historia Animalium*, but this would take us too far afield and it does not directly concern that which is most significant in what St. Thomas had to say. We are interested mainly in how he conceived the order of generation as a whole, and though we cannot simply abstract from all details, since they make manifest the essential continuity between the various degrees within this order, still we must be satisfied with seeing them globally here, as St. Thomas did, and hence, inevitably for us, in a confused way.

From the angle of the less perfect, what appears is an ordination to the more perfect. " Imperfecta in natura ordinantur ad perfecta sicut ad finem."[2] In this perspective the soul plays the role of final cause, not only in the generation of a living thing properly, but also in the process of generation as a whole, " etiam omnium naturalium corporum in istis inferioribus."[3] From the angle of the soul, on the other hand, and a fortiori from the angle of reason, there appears an ordination of instrumentality, the more perfect using the less perfect.

Videmus enim quod omnia naturalia corpora sunt quasi instrumenta animae, non solum in animalibus, sed etiam in plantis. Videmus enim quod homines utuntur ad sui utilitatem animalibus, et rebus inanimatis : animalia vero plantis et rebus inanimatis ; plantae autem inanimatis, inquantum scilicet alimentum et iuvamentum ab eis accipiunt.[4]

For Aristotle and St. Thomas this being-used was not purely coincidental to less perfect things in the order of nature, though the manner in which they were *de facto* used could be. It was something that came from the natural order itself, and the place which these things held in that order. " Secundum autem, quod agitur unumquodque in rerum natura, ita natum est agi."[5] It is in the nature of the less perfect things of nature to serve, to be used by the more perfect.

On the other side, however, we should also note that it is in the nature of the more perfect in nature to depend on the less perfect. This is a consequence of being material, of being a part of nature, and it holds true at every degree in nature. The plant cannot be without

1. Cf. *In III de Anima*, lect.17-18.
2. *De Pot.*, q.5, a.9, c.
3. *In II de Anima*, lect.6, n.322.
4. *Ibid.*
5. *Ibid.*

the inanimate, nor the animal without the plant : and for the animals, the higher senses cannot be without the sense of touch, which is the lowest and most fundamental, nor the ability to move about without the senses. Finally, human reason and intelligence, which transcends natural being in a certain way but which is still in nature, inasmuch as it is the soul of a body, cannot do without all that goes before in nature.

Sed in mortalibus[1] habentibus intellectum, necesse est omnia alia praeexistere, sicut quaedam instrumenta, et praeparatoria ad intellectum, qui est ultima perfectio intenta in operatione naturae.[2]

Thus, everything below man, not only is for man, to be used by man, but also a preparation for his exercise of intelligence — *praeparatoria ad intellectum*. It comes first in the order of the material cause, but it is *for, in view of*, what comes after. It is less perfect, and hence ordered to the more perfect. Such is the order of generation.

All this must be understood not only within one and the same individual but also in terms of the different species within nature as a whole. We saw earlier that in the process of generation nature intends the permanence of corruptible species. Each individual of a corruptible species is thus ordered to the species as a whole. This might be construed as an objection to what we have just been saying about the less perfect in nature being ordered to the more perfect, for if an individual of a lower species is ordered to the preservation of the species itself, how can it be ordered to a higher species as well ? St. Thomas answers the difficulty by appealing to his doctrine on the two modes of order in nature.

Similiter etiam praedictis non obviat quod individua sunt propter species. Per hoc enim quod ad suas species ordinantur, ordinem habent ulterius ad intellectualem naturam. Non enim aliquod corruptibilium ordinatur ad hominem propter unum individuum hominis tantum, sed propter totam humanam speciem. Toti autem humanae speciei non posset aliquod corruptibilium deservire nisi secundum suam speciem totam. Ordo igitur quo corruptibilia ordinantur ad hominem, requirit quod individua ordinentur ad speciem.[3]

Thus, not only is there no opposition between the order of an individual to its species and the order to the more perfect in nature, but the

1. Mentioning mortals specifically here is noteworthy for two reasons. First, for Aristotle the heavenly bodies were animated by intelligences. Hence it was necessary for him to specify man as mortal to distinguish him from the immortal, as well as incorruptible, heavens. Secondly, this specifying of man by mortality places him clearly in the order of things subject to generation and corruption, as opposed to the heavenly bodies which were supposed to be above that order of bodies.
2. *In II de Anima*, lect.6, n.301.
3. *Cont. Gent.*, III, c.112, n.2864.

latter even calls for the former. Individuals of a lower species are ordered to a higher species by being ordered to their own species, for it is the whole of the lower species that is *per se* ordered to the whole of the higher species. No particular individual of a lower nature, for example, is ordered by nature to an individual man directly, but everything in nature ultimately is ordered to man and this order requires that each individual be ordered to its species.

V. MAN, THE END OF NATURAL PROCESS

It appears, then, from all this, that for St. Thomas the final intention in the natural order is the generation of man. Natural causes alone cannot produce a man, to be sure, since his rational soul transcends the whole of nature, yet nature truly produces man inasmuch as it produces one of his essential components. "Animae vero rationales quamvis non fiant a causis naturalibus ; tamen corpora, quibus divinitus infunduntur sicut sibi connaturalibus, per operationem naturae fiunt."[1] And even though nature itself cannot properly produce the whole of what man is, still, since it is man that is highest in nature, it intends him precisely inasmuch as he is what is more perfect. "Naturae enim intentio non sistit in generatione animalis, sed intendit generare hominem."[2] The proof of it is in the entire order of generation. It could be summed up in the principle, "natura intendit perfectum."[3]

Aristotle himself would have agreed with all of this and probably would have seen no reason in it for changing his opinion concerning the end of the heavenly motions. Because St. Thomas did not think the heavenly bodies were animated, it was easy for him to think of man as more noble than the heavens and hence as the end intended in the heavenly motions. But Aristotle thought of the heavenly bodies as somehow animated, and indeed by an intelligence superior to man ; this made it practically impossible for him to consider seriously an idea such as that of St. Thomas, supposing that such an idea even occurred to him. For St. Thomas the intelligence that moved the heavenly body was superior to man, but it was a separated intelligence and did not enter into the constitution of the heavenly body as its soul. There was implicit in his position a clearer value, a greater nobility attached to the human person than in that of the Philosopher.[4] Thus St. Thomas tended to make the

1. *De Pot.*, q.3, a.10, ad 2.

2. *Ia*, q.85, a.3, ad 1.

3. *De Pot.*, q.5, a.9, c.

4. When St. Thomas made the remark that it made little difference whether the intelligence that moves the heavenly bodies be separated or not (cf. *De Pot.*, q.5, a.5, c. : "activum autem principium motus est aliqua substantia separata, ut Deus vel intelligentia vel anima, ut quidam ponunt ; quantum ad praesentem quaestionem nihil differt"), he was thinking only of the relation between the heavenly bodies and their intelligent movers, and not of the aspect of the question we are looking at here . . . On another occasion, after making a similar remark, he noted that conjunction of the intelligence with the heavenly body could make a difference with regard to the latter's dignity. "Nec multum refert quantum ad hunc modum movendi, utrum moveatur a substantia spirituali coniuncta (quae dicatur anima eius, vel tantum a substantia spirituali separata : nisi quod potest ipsum moveri a substantia spirituali coniuncta, pertinet ad maiorem dignitatem ipsius caeli ; quod attendentes Plato et Aristoteles, posuerunt caelum animatum" (*In II de Caelo*, lect.3, n.315·3)). By not attributing a soul to the heavenly bodies St. Thomas was thus lowering the heavenly bodies from the high place that Plato and Aristotle had given them and subordinating them simply to man ; and at the same time he was enhancing man's position at the summit of the natural order.

ancient cosmos strain at the seams by placing man clearly at its summit and somehow above it.

For determining the end of the heavenly motions, according to St. Thomas, three things had to be kept in mind. First of all, the end had to be something attainable through motion, secondly, something other than the motion itself, and thirdly, something more noble than the means to the end. These conditions could be satisfied in two ways.

Uno modo ut ponatur finis motus caeli aliquid in ipso caelo, quod simul cum motu existit ; et secundum hoc a quibusdam philosophis ponitur, quod similitudo ad Deum in causando est finis motus caeli ; quod quidem fit ipso motu durante ; unde secundum hoc non convenit quod motus caeli deficiat, quia deficiente motu, finis ex motu proveniens cessaret.[1]

Though the end here was something to be found in the heavenly body itself, namely, the assimilation to God through causing, it was something more noble than the motion which was the means of its causing. St. Thomas explains this through an analogy with the end in a particular process of generation. The individual generating intends the form of the being generated, although the form of the being generated is not more noble than that of the individual generating, but belongs to the same species. The fact is, however, that the individual generating does not intend the form of the being as final end ; its final end is something more.

Intendit enim generans formam generati, quae est generationis finis, non quasi ultimum finem : sed similitudinem esse divini in perpetuatione speciei, et in diffusione bonitatis suae, per hoc quod aliis formam speciei suae tradit, et aliorum sit causa.[2]

What is said here will not be denied, but will be seen in the light of another position, one that will make it more meaningful.

1. *De Pot.*, q.5, a.5, c.

2. *Cont. Gent.*, III, c.22, n.2028b.

The other way of satisfying the three conditions defined above was one proposed by St. Thomas as his own : "Alio modo potest poni finis motus caeli aliquid extra caelum, ad quod pervenitur per motum caeli ; quo cessante illud potest remanere."[1] For St. Thomas the purpose of the heavenly motions, as of the whole natural order, was to bring to completion the number of the elect. This was an end that could remain after the motion itself ceased. It satisfied the necessary conditions for an end of the whole process of nature, for it was something more noble, other than motion or process, and attainable by motion. In fact, on this last count it seems to improve on the position of the philosophers, since a certain number of men is something much more determinate as an end, something which can be more properly attained through motion, than simply assimilation to God in causing.

Furthermore it does not leave the end unrelated to the motion as the first position seems to, but rather relates it to the motion in such a way that the end is truly reached through the motion. "Sunt autem aliorum causae per hoc quod causant generationem et corruptionem quae est in istis inferioribus. Motus igitur corporum caelestium, inquantum movent, ordinantur ad generationem et corruptionem quae est in istis inferioribus."[2] In the first position, such statements as this last one would have had to be qualified by dissociating the end from the term of the *motus caeli*, generation and corruption *in istis inferioribus*, lest we seem to be subordinating the superior to the inferior. But for St. Thomas's position this was not necessary, since man, the rational animal, was in the order of generation and corruption, while being superior to the heavens. He did not have to dissociate the end and the term of the operation in order to satisfy the conditions required in determining the end.

To bring out the greater probability of his own position St. Thomas points to three difficulties with the position of the philosophers. The first is closely connected with what we have just seen about dissociating the end from what is actually caused, that is, the term or the effect. St. Thomas's approach is somewhat abstruse, but he shows that it is one and the same thing to speak of the end of a motion either as assimilation to God in causing (*in causando*) or simply as causing (*causare*). But, he says, causing itself cannot be an end, since it is an activity with a result and it tends to something other than itself : "causare autem non potest esse finis, cum sit operatio habens operatum et tendens in aliud."[3] He refers to Aristotle himself to show that such doings (*factiones*) cannot be the end of an agent, because the perfection intended is not in the maker

1. *De Pot.*, q.5, a.5, c.
2. *Cont. Gent.*, III, c.22, n.2028a.
3. *De Pot.*, q.5, a.5, c.

or the making but rather in the thing made. This leaves the philosophers in a rather embarrassing posture, for their position seems to be subordinating the superior to an inferior end, the heavens to the things generated here below.

The second point takes the tack of instrumentality. The heavens are in effect instruments of their intelligent mover, as everyone agreed. The philosophers had proposed an end to be realized in the heavens themselves, but this does not go with their nature as instruments. "In actione autem quae est per instrumentum, non potest esse finis aliquis in ipso instrumento nisi per accidens, in quantum instrumentum accipitur ut artificiatum et non ut instrumentum ; unde non est probabile quod finis motus caeli sit aliqua perfectio ipsius, sed magis aliquid extra ipsum."[1] An argument found in the *Compendium Theologiae* offers an excellent elaboration of this.

> Manifestum est enim quod omne corpus motum ab intellectu est instrumentum ipsius. Finis autem motus instrumenti est forma a principali agente concepta, quae per motum instrumenti in actum reducitur. Forma autem divini intellectus, quam per motum caeli complet, est perfectio rerum per viam generationis et corruptionis. Generationis autem et corruptionis ultimus finis est nobilissima forma, quae est anima humana.[2]

Thus, inasmuch as the heavenly bodies were supposed to be only instruments of a separate intelligence, it was not to them that one had to look for the end intended in their motion but to that which was intended by the intelligence itself, namely, the most noble form in nature, the human soul.

The third point, however, takes us more deeply still into the heart of the question. It takes the preceding points together, as it were, and combines them according to their concrete significance. In so doing, it saves what is good in the position of the philosophers but goes beyond it and completes it. If assimilation to God in causing is the end of the heavenly motions, then this similitude should be considered principally (*praecipue*) where the causation of God himself is exercised more immediately, that is, in the causation or the creation of a rational soul. In this causation the heavens only concur, along with the human parents, to be sure, by disposing matter through their motion, but this concurring is the closest assimilation to God *in causando* which they can exercise. To say that a certain number of elect, then, is the end of the heavenly motions, as St. Thomas does, makes much more of the idea of assimilation to God through causing than what the philosophers said, since they spoke only generally of

1. *De Pot.*, q.5, a.5, c.
2. *Comp. Theol.*, c.171, n.338.

causing generation and corruption.[1] The generation of a human being is in fact the highest type of causation found in the order of nature, the closest cooperation with God in producing anything, as well as the highest assimilation to his act of creation. At the end of the *Contra Gentiles* St. Thomas makes the point very succinctly. "Motus igitur praecipue est propter hominem: in hoc enim maxime divinam similitudinem consequitur in causando, quia forma hominis, scilicet anima rationalis, immediate creatur a Deo."[2]

With the *praecipue* in this text and in the one we paraphrased just before, St. Thomas seems to be suggesting that, if you push the position of the philosophers far enough and consider it in connection with the concrete order of generation, and especially with man at the summit of this order, you will see that it has to give way to the second position, even though the first position, that of the philosophers, is not without its own probability. Or more exactly, you will see that the second position, that of St. Thomas, fills in the gap still to be found in the first. Unlike many Thomists of our day, who insist always on what seems to have set St. Thomas off from the Philosopher, often to the point of ignoring certain things which St. Thomas really thought, because they happen to be the same as what Aristotle thought, St. Thomas himself was much more given to bringing out the continuity between himself and the Philosopher, saying what he had to say, even in theology, very often in the terms of the Philosopher. We see that most clearly here in *De Potentia*, q. 5, a. 5, where he is explicitly concerned with presenting a position which differs from that of the philosophers and does so by pushing philosophy itself one step further.

Undoubtedly, St. Thomas was influenced by Christian revelation in arriving at his position. But we shall not try to sort out influences here. What we wish to note is that St. Thomas thought of his position as more probable even from a philosophical standpoint. In theology he took it to be certain. But it is the rational aspect of his position that he insists upon in discussing with the philosophers. And this greater rationality which he tried to bring out centers about the nobility of the human person.

Perhaps St. Thomas saw more in Aristotle then was there *de facto*, as many seem to think today, but perhaps also his genius lay more in being able to see what was there somehow or other, either explicitly or implicitly, and in being able to bring it out in more rational fashion. In

1. "Si similitudo ad Deum in causando est finis motus caeli, praecipue attenditur haec similitudo secundum causalitatem eius quod a Deo immediate causatur, scilicet animae rationalis, ad cuius causalitatem concurrit caelum et per motum suum materiam disponendo. Et ideo probabilius est quod finis motus caeli sit numerus electorum quam assimilatio ad Deum in causalitate generationis et corruptionis, secundum quod philosophi ponunt" (*De Pot.*, q.5, a.5, c).

2. *Cont. Gent.*, IV, c.97, n.4287b.

this way, he was not only protecting the Faith against the attacks of reason, but also meeting the greater exigencies of reason itself by bringing out what seemed more reasonable — *rationabilior*. St. Thomas did, in fact, adopt Aristotle's system of the physical universe, but he made it more reasonable by centering it on man, both as summit and as final end, something which Aristotle had not seen as clearly.

VI. AN END AND A BEGINNING IN TIME

It is precisely this new insistence on the place of man in the cosmos that led to thinking of an end in time as more reasonable than the supposition of an unending cyclical motion. The end of the natural process, as St. Thomas understood it, is not just the multiplication of human beings, something that might conceivably go on indefinitely, but only of a certain number of them — *certus numerus electorum*. Once this number is reached there will be no more reason for the process of generation going on. Thus, there will be no more reason for the motion of the heavens, as this was conceived by St. Thomas and the Philosopher. No one on earth knows the number of the elect, but the point of Article 5 in *De Potentia*, question 5, had been to show that the idea of a determinate number of men seemed more reasonable and that it implied an end to cosmic motion and process.

An end to time and the present state of the world, in the ancient perspective, would have had to be conceived in terms of a state of repose for the heavenly bodies as for the earthly elements. "Si motus caeli non esset propter aliquid aliud tunc oporteret attendere proportionem eius ad quietem sequentem, si non sempiternus poneretur."[1] But unlike the elements, whose natural motion was linear and hence tending to one determinate place, the heavenly bodies had no natural place of rest. There was no determinate place for the circular motion of the heavens to tend to, and for this reason, the assumption of sempiternity seemed inevitable in this perspective. Furthermore it seemed that, if the motion were to stop, the heavens would cease being causes and thus cease being like God in causing, which was the supposed end of the motion in the first place. By subordinating the heavenly motion to the multiplication of men, however, St. Thomas broke out of this eternal cycle. "Sed quia est ordinatus ad alium finem; eius proportio attenditur in ordine ad finem, et non in ordine ad quietem sequentem."[2] The heavenly motion thus became like all other natural motions and operations, ordered along with the movements of the elements, the compounds,

1. *De Pot.*, q.5, a.5, ad 13.

2. *Ibid.*

the plants, and the animals to the disposing of matter for receiving rational souls. God created the essential parts of the universe himself, but for its ultimate perfection he ordered the various movements of the things he created. "Ad ultimam vero perfectionem, quae erit ex consummatione ordinis beatorum, ordinavit diversos motus et operationes creaturarum : quosdam quidem naturales, sicut motum caeli et operationes elementorum, per quas materia praeparatur ad susceptionem animae rationalis ; quosdam vero voluntarios . . ."[1] The text goes on to cite the example of Guardian Angels in the order of salvation. We could think as well of human activity as a part of this order.

Once again, to be sure, the idea of an order of the blessed is from Christian theology, but for St. Thomas it also had something to recommend it in philosophy over the position of the philosophers. In the latter there was something rather paradoxical about the final end of the heavenly motions, though St. Thomas admitted its having some probability from a philosophical standpoint. It was a final end which, at least under the aspect of duration, had no end. But it was not inconsistent with the cosmological system in which it was found. With St. Thomas's transformation of that system, however, the paradox could and had to disappear. Once the purpose of the whole cosmological process focusses on man, the idea of a process going on indefinitely producing men *ad infinitum* seems less plausible. This is clearly an end which cannot be reached through motion, one of the three conditions to be satisfied in determining the end of the heavenly motions. " Qui ponit infinitum in causa finali destruit finem et naturam boni. Pertingere enim quod infinitum est, impossible est. Nihil autem movetur ad id quod impossible est ipsum consequi."[2] So it is that the greater prominence given to man in cosmology led St. Thomas to affirm an end in time as something more probable and more reasonable even from the standpoint of philosophy.

Could not the same argument have been used to show that a beginning in time for the cosmos would also be more probable and more reasonable? St. Thomas never did as much, but let us explore its possibilities for a moment. We could argue that a process *ab infinito*, without a beginning in time, would be no less irrational than one *ad infinitum*, without an end, for it would have to be supposed as also producing men *ad infinitum*. But let us note that we do not have to do with precisely the same thing with regard to the beginning as we do with regard to the end. The end of time will not mark the annihilation of the universe ; it will continue to subsist after the end, along with its essential parts.[3] What of the universe before the

1. *De Pot.*, q.5, a.5, ad 13.

2. *Ibid.*, c.

3. Cf. *Ibid.*, a.4, 7-10.

beginning of time, before the beginning of motion and the process of generation? Could we not say that it also subsisted then, without being in its present state of generation and corruption?

This is not impossible in itself, but it does seem to divorce action from being, something which St. Thomas was always most reluctant to admit. Such a position would imply that the things of the universe were *ab aeterno* without having their proper activity, and so it would be reducible to the ancient occasionalism that St. Thomas rejected so vigorously and so consistently. In fact, such a position would imply that, before the beginning in time, things did not constitute a universe at all. For St. Thomas things exist in order to act, they have the power to do so, each according to its nature, and the exercise of this power by the different beings is what constitutes the order of the universe in its fullest sense.

> Si autem rebus subtrahantur actiones, subtrahitur ordo rerum ad invicem : rerum enim quae sunt diversae secundum suas naturas, non est colligatio in ordinis unitatem nisi per hoc quod quaedam agunt et quaedam patiuntur. Inconveniens igitur est dicere quod res non habeant proprias actiones.[1]

It would be 'inconvenient' to say that of things as they are now, and it would be no less 'inconvenient' to speak of things as being in a state of immobility *ab infinito*.[2]

Thus, it would seem, we have an argument showing that it is more reasonable to suppose a beginning of the universe in time, for the *inconvenientia* of which St. Thomas speaks in the text just quoted is not something to be minimized. It pertains to the greater reasonableness of which we spoke earlier, that based on the concrete order of generation. All it gives us is a greater probability, not a demonstration in the strictest sense of the term, for as St. Thomas writes in the *De Aeternitate Mundi*, it has not been demonstrated that God could not create an infinite number of beings. "Adhuc non est demonstratum, quod Deus non possit facere ut sint infinita actu."[3] Thus, in the abstract, we could still suppose, as the Philosopher did, that the world

1. *Cont. Gent.*, III, c.69, n.2447.

2. Note that in its final state, as St. Thomas understood it, though the heavenly motion was supposed to come to a halt, the cosmos would not be without its activity. This activity would center about the body of man which will have then, as now, its own principle of activity within itself, a principle that is independent of the heavenly or cosmic influence. " Et hoc poterit esse sufficiens principium motus, motu caeli cessante, cum a motu caeli non dependeat " (*De Pot.*, q.5, a.10, c.). St. Thomas recalls this in commenting Book VIII of the *Physics*. " Ponimus autem secundum fidem nostram, substantiam mundi sic quandoque incepisse, quod tamen nunquam desinat esse. Ponimus etiam quod aliqui motus semper erunt, praesertim in hominibus, qui semper remanebunt, incorruptibilem vitam agentes, vel miseram vel beatam " (*In VIII Phys.*, lect.2, n.986-16)).

3. N.310.

has existed from all eternity, even though this might imply an infinity of human souls, just as we could also suppose a world without souls or without men, but in the concrete, when we consider the order of generation, as St. Thomas did, with man at its summit but truly as a part of it, it becomes more reasonable to suppose that it had both a beginning and an end in time.

Oliva BLANCHETTE, S.J.

Discussion : "Analogy" is Analogous

On the meaning of "*Analogy* is Analogical"*

In his recent book *The Logic of Analogy*,[1] Ralph M. McInerny makes the repeated claim that "'analogy' is analogous". In the pages that follow this claim will be examined in some detail and an attempt made to fill out McInerny's terse account. The issues raised by the dictum "'analogy' is analogous" are extremely difficult and complicated. This present paper, therefore, does not pretend to solve these problems. The reflections of this paper are offered rather in the hope that the problems may be somewhat clarified and the issues at stake brought once again into clear focus.

To facilitate the examination of the meaning of "'analogy' is analogous", we shall take as our point of departure Austin Farrer's view that analogy presupposes complexity in the things compared.[2] The adoption of this insight commits us to the following general formulation of analogy : "x is analogous to y with respect to z". If we substitute for the word "analogy" the word "like" we shall be further committed, at least tentatively, to treat analogy as a *species* of likeness. It will somewhat simplify matters if the linguistic issues are kept distinct from the ontological issues. We have in mind here McInerny's distinction between *dicuntur* and *sunt* and between *rationes* and *entia*. This qualification demands a revision of the proposed schema so that it reads : the expression 'a' is like the expression 'b' with respect to C (where C is a property signified by 'a' and 'b' in a given context).[3] Such a general formulation of analogy is calculated to rule out, at least for the purposes of the present paper, the need to consider *things* claimed to be analogous.

* I am grateful to Professor Ralph M. McInerny of the University of Notre Dame and to Professor Romane L. Clark, of Duke University, for their helpful criticisms of an earlier draft of this paper. I must assume full responsibility for any obscurities that remain, particularly where our views tend to differ.

1. Ralph M. McINERNY, *The Logic of Analogy* (The Hague : Martinus Nijhoff, 1961), pp.4, 33, 168ff. It is clear from the last two references that McInerny is concerned with the expression "analogy".

2. One can foresee the problems for this view in the case of God's nature which, according to tradition, is simple. We shall have to advocate at least a notional distinction of, for example, essence and existence in God if our analogical schemata are to have any purchase.

3. The schema focusses attention on the properties as signified rather than the properties as exemplified.

CHAPTER 9

THE ORDER OF REASON AND INTELLIGENCE

With the order of reason and intelligence we pass beyond the realm of what is commonly understood by cosmology today, the order of corporeal beings. The order of life itself is already higher than mere nature; it is an order ad actum over and above the order ad situm. The principle in this higher order is soul, and not simply nature, for nature primarily disposes things according to an order of place, whereas soul disposes the parts of what it informs according to the order required for their proper functioning in view of life's operations. But even with life and soul alone we do not properly transcend nature understood in the sense that embraces the whole order of generation. Only with the rational soul do we do this.

We have had occasion to mention the rational soul before, but we have not considered it as rational yet. We have seen the soul, whether it be of man or of lower animals, only as being in time, "quasi in fieri: quod significat nomen generationis" (In De Causis lect. 32, n. 461). Now we must see the soul, and more precisely the soul of man, since for St. Thomas this is true only of the human soul, as rational

and intellectual, in what raises it above the whole order of generation and corruption.

> Super omnes autem has formas invenitur forma similis superioribus substantiis etiam quantum ad genus cognitionis, quod est intelligere: et sic est potens in operationem quae completur absque organo corporali omnino. Et haec est anima intellectiva: nam intelligere non fit per aliquod organum corporale. Unde oportet quod illud principium quo homo intelligit, quod est anima intellectiva, non sit totaliter comprehensa a materia aut ei immersa, sicut aliae formae materiales. Quod eius operatio intellectualis ostendit, in qua non communicat materia corporalis. (C.G. II, c. 68, n. 1459a)

The activity we have been exercising in reflecting on the order of nature as a whole, an activity that has somehow risen above nature to comprehend it, shows that man's rational soul is not contained, not even virtually, by anything in nature. "In homine (est) aliquid quod non continetur virtute nec in elementis nec in caelestibus corporibus, scilicet anima rationalis" (De Pot. q. 5, a. 10, c). Rather it is man's soul that contains nature. The Liber De Causis proposed such an idea of the soul in connection with the heavenly bodies. Nature was said to contain all things generated, inasmuch as it was the principle of generation, and soul was said to contain nature. "Anima vero continet Naturam: quia, secundum opinionem ponentium corpora caelestia animata, quam auctor huius libri supponit, Anima est principium motus primi corporis et consequenter omnium motuum naturalium" (In De Causis lect. 9, n. 221). Over and above this, intelligence was said to contain soul, because soul participated in intellectual

activity from Intelligence. Though he did not admit the animation of the heavens, St. Thomas still availed himself of this idea of the rational soul as containing nature, as being at the horizon of eternity and time, "existens infra aeternitatem et supra tempus, quia ipsa est supra Naturam, quae est principium motus qui tempore mensuratur" (Ibid., n. 220; cf. also lect. 2, n. 61). Thus it was that he characterized the place of the human soul in the order of the universe.

> Et inde est quod anima intellectualis dicitur esse quasi quidam horizon et confinium corporeorum et incorporeorum, inquantum est substantia incorporea, corporis tamen forma. (C.G. II, c. 68, n. 1453b)

In the mind of St. Thomas this was to be understood in the light of the Dionysian axiom of continuity for the order of the universe. "Anima enim ... media est inter res intelligibiles quae sunt omnino separatae a motu et per hoc parificantur aeternitati et inter res sensibiles quae moventur et cadunt sub tempore" (In De Causis lect. 14, n. 296).

The reason why everything in the order of generation and nature is ordered to man's rational soul is the soul's superiority with regard to anything in nature or to the whole of nature. This superiority is based on something that is peculiar to intelligence, the ability to encompass, to contain, to be in a certain fashion, all things. "Inter perfectiones autem rerum potissima est quod aliquid sit intellectivum: nam per hoc ipsum est quodammodo omnia, habens in se

omnium perfectionem" (C.G. I, c. 44, n. 377). There is nothing above intelligence, inasmuch as intelligence can have in itself the perfection of all things. There are degrees of intelligence, to be sure, but this is true of all degrees according to their proper capacity, including the lowest degree of all, human intelligence. The adage that the human soul is somehow all things, anima humana est quodammodo omnia, was from Aristotle,[1] but St. Thomas made it his own as perhaps no other Aristotelian idea.

This was in keeping with the greater prominence he gave to man in cosmology. He used the principle extensively, for it implied in his mind an order in being which is the foundation for our speaking of every being as true and good to the extent that it is. We speak of a being going with another, "convenientiam unius entis ad aliud," but this cannot be, unless there is something, some being, whose nature it is to go with every being: "hoc quidem non potest esse nisi accipiatur aliquid quod natum sit convenire cum omni ente. Hoc autem est anima, quae quodammodo est omnia, sicut dicitur in III De Anima" (De Ver. q. 1, a. 1, c). Things

---

[1] Cf. In III De Anima lect. 13, n. 787: "Omnia quodammodo est anima. Omnia enim quae sunt, aut sunt sensibilia, aut intelligibilia; anima autem est quodammodo omnia sensibilia et intelligibilia, quia in anima est sensus et intellectus sive scientia, sensus autem est quodammodo ipsa sensibilia, et intellectus intelligibilia, sive scientia scibilia." Note the mediative sense that underlies the adage as it applies precisely to the human soul, at the confines of both the intelligible and the sensible.

are said to be good by reason of their 'convenience' with the appetitive power of the soul, and true by reason of their 'convenience' with the intellect. With this understanding of the Aristotelian adage, St. Thomas made it play an important role in his theory of the universe, a role which perhaps Aristotle himself had not thought of.

There is in material being a radical imperfection, a limitation to individuality. No matter how perfect a material being might be in itself, it is still only itself and nothing more. "Secundum esse materiale, quod est per materiam contractum, unaquaeque res est hoc solum quod est, sicut hic lapis, non est aliud quam hic lapis" (In II De Anima lect. 5, n. 283). On the other hand, in immaterial being there is no such limitation, but rather an amplitude attaining all beings. "Secundum vero esse immateriale, quod est amplum, et quodammodo infinitum, inquantum non est per materiam terminatum, res non solum est id quod est, sed etiam quodammodo alia. Unde in substantiis superioribus immaterialibus sunt quodammodo omnia, sicut in universalibus causis" (Ibid.). Each created intelligence is only what it is, but it overcomes this limitation by its power to be all other beings as well through knowledge. In this way it coincides not only with its own perfection, but also with that of the universe as a whole. For St. Thomas the imperfection of material being seemed to cry for a similar kind of compensation and indeed it found in

the knowing, or rather in the being-known by a being whose nature it was to know all beings. He saw this as a second perfection for all things limited and imperfect somehow, a perfection that made them all communicate in the perfection of the universe as a whole, regardless of their imperfection.

> Sciendum igitur, quod res aliqua invenitur perfecta dupliciter.
>
> 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 cuiuslibet rei perfectio in se consideratae sit imperfecta, veluti pars totius perfectionis universi, quae consurgit ex singularum rerum perfectionibus, invicem congregatis.
>
> 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 III De Anima dicitur, animam esse quodammodo omnia, quia nata est omnia cognoscere. (De Ver. q. 2, a. 2, c)

This second mode of perfection, which appears as a sort of compensation for the imperfection of the first mode, the mode that is proper only to this or that species, may seem strange at first sight, but for St. Thomas it was precisely the mode that seems required for the perfection of the universe as such. Without knowing beings in the universe this perfection would be lacking. The universe would be less of a universe, and more like a mere juxtaposition of beings, each

perfect in itself, perhaps, but always imperfect in comparison to others and to the whole of which it is only a part.

The long passage of the De Veritate we just quoted is unique in St. Thomas, but it seems to represent something that was constant in his thought. The same idea of a double perfection in things as we find here appears in the Contra Gentiles also, when he tries to prove the necessity of intellectual creatures for the perfection of the universe, "quod oportuit ad perfectionem universi aliquas creaturas intellectuales esse." There the idea appears under the guise of similitude.

> Similitudo autem unius invenitur in altero dupliciter: uno modo, quantum ad esse naturae, sicut similitudo caloris ignei est in re calefacta per ignem; alio modo secundum cognitionem, sicut similitudo ignis est in visu vel tactu. (C.G. II, c. 46, n. 1234)

If the similitude of God is to be found perfectly in things according to all the ways possible, St. Thomas argues, then the divine Goodness has to be communicated to things through a similitude not only in being, but in knowing as well. But only an intellect can know the divine goodness. To make his point St. Thomas does not have to show how the two kinds of similitude to God are related to one another. But when we think of them in terms of perfection we see that they are in fact related, as the two modes of perfection defined in the text from the De Veritate.

St. Thomas further argues to the necessity of intellectual creatures for the perfection of the universe from the

need for having some creature that would contain lower beings, not according to the extension of quantity, as was supposed to be the case with superior bodies, the heavens, but according to the simple mode of intelligence, in imitation of God's own mode of containing the universe. "Ut igitur nec in hoc modo continendi Dei imitatio creaturis deesset, factae sunt creaturae intellectuales, quae creaturas corporales continerent, non extensione quantitatis, sed simpliciter per modum intelligibilem: nam quod intelligitur est in intelligente, et eius intellectuali operatione comprehenditur" (Ibid., n. 1235). This is another proof that the two modes of similitude to God must be understood as complementary to one another as are the two modes of perfection in creation.

We see this further from another angle when St. Thomas speaks of a twofold action on the part of bodies, one that is proper to them according to their place and their role in the order of nature, and one that somehow touches the order of intelligence.

> Sed sciendum quod corpus habet duplicem actionem: unam quidem secundum proprietatem corporis, ut scilicet agat per motum (hoc enim proprium est corporis, ut motum moveat et agat); aliam autem actionem habet, secundum quod attingit ad ordinem substantiarum separatarum, et participat aliquid de modo ipsarum.
>
> (De Pot. q. 5, a. 8, c)

This second mode of action should not surprise us, for it is only another instance wherein is realized the Dionysian axiom

of continuity between the lower and the higher in the order of the universe.

But it is important to note how this second mode of action differs from the first and more properly natural mode, which is by movement and whose result is the transmutation of matter. "Haec autem est actio corporis, quae non est ad transmutationem materiae, sed ad quamdam diffusionem similitudinis formae in medio secundum similitudinem spiritualis intentionis quae recipitur de re in sensu vel intellectu, et hoc modo sol illuminat aerem, et color speciem suam multiplicat in medio" (Ibid.). Sensation depends intrinsically upon corporal organs. It is not immaterial as intelligence is. But there is nonetheless something immaterial about it, for sensation shares in the amplitude and the extension found in the nature of beings that know.[1] This is something that must be kept in mind here.

---

[1]Concerning this relation between knowing and immateriality, cf. S.T. I, q. 14, a. 1, c: "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. Unde manifestum est quod natura rei non cognoscentis est magis coarctata et limitata; natura autem rerum cognoscentium habet maiorem amplitudinem et extensionem; propter quod dicit Philosophus, III de Anima, quod anima est quodammodo omnia. Coarctatio autem formae est per materiam. Unde et supra diximus quod formae, secundum quod sunt magis immateriales, secundum hoc magis accedunt ad quamdam infinitatem. Patet igitur quod immaterialitas alicuius rei est ratio quod sit cognoscitiva, et secundum modum immaterialitatis est modus cognitionis. Unde in II de Anima dicitur quod plantae non cognoscunt propter suam materialitatem. Sensus autem cognoscitivus est, quia receptivus est specierum sine materia; et intellectus adhuc magis cognoscitivus, quia magis separatus est a materia, et immixtus, ut dicitur in III de Anima."

The thing to note, however, is that this second mode of action by bodies corresponds completely with the second mode of perfection we saw in the text from the De Veritate, that of being known and overcoming, in this way, the imperfection of being only a part of the total perfection of the universe, while the first mode of corporeal action remains within the first mode of perfection, inasmuch as every agent acts according to its likeness, agit sibi simile. What we saw from the point of view of the intellectual soul, quodammodo omnia, thus finds its counterpart in material things, which are ordered not only to function according to their proper place in nature, but also to communicate, through the mediation of intellectual creatures, in the perfection of the universe as a whole. This second ordination of nature is what makes the existence of intellectual creatures a requisite for the perfection of the universe even from the point of view of the material cosmos.

The two arguments we saw above to show the need for intellectual creatures for the perfection of the universe rested ultimately, if not immediately, on a proper understanding of the perfection intrinsic to the universe itself, the need for intellectual creatures so that the similitude to God might be realized more perfectly and in every way possible in the universe. The other arguments of St. Thomas do not bring in this point directly, but appeal only to the idea of

assimilation to God, the extrinsic end of the universe.[1] First, he appeals to the principle that an effect is most perfect only when it returns to its principle.[2]

> Ad hoc igitur quod universum creaturarum ultimam perfectionem consequatur, oportet creaturas ad suum redire principium. Redeunt autem ad suum principium singulae et omnes inquantum sui principii similitudinem gerunt secundum suum esse et suam naturam, in quibus quandam perfectionem habent: sicut et omnes effectus tunc maxime perfecti sunt quando maxime similantur causae agenti, ut domus quando maxime similatur arti, et ignis quando maxime similatur generanti. Cum igitur intellectus Dei creaturarum productionis principium sit, ut supra ostensum est, necesse fuit ad creaturarum perfectionem quod aliquae creaturae essent intelligentes.
> (C.G. II, c. 46, n. 1230)

The quaedam perfectio which creatures have in their being and their nature, however, is only a first perfection. There is also a second perfection in things to be considered. The second argument turns to this second perfection as it passes from the standpoint simply of being to that of action.

---

[1] In the Contra Gentiles St. Thomas raises the question of the need for intellectual creatures for the perfection of the universe immediately after the section dealing with the essential diversity of the universe, C.G. II, cc. 39-45. It will be remembered that this essential diversity follows from the Creator's intention of producing a more perfect representation of his divine Goodness and Perfection. Cf. supra, ch. 3.

[2] "In exitu creaturarum a Primo Principio attenditur quaedam circulatio vel regiratio eo quod omnia revertuntur sicut in finem in id a quo sicut Principio prodierunt" (In I Sent. d. 14, q. 2, a. 1). We have already encountered this principle at the end of chapter I in connection with the final perfection of things, pp. 51-52 and in chapter 5 in connection with final causality, pp. 191-193.

> Perfectio secunda in rebus addit supra primam. Sicut autem esse et natura rei consideratur secundum primam perfectionem, ita operatio secundum perfectionem secundam. Oportuit igitur, ad consummatam universi perfectionem, esse aliquas creaturas quae in Deum redirent non solum secundum naturae similitudinem, sed etiam per operationem. Quae quidem non potest esse nisi per actum intellectus et voluntatis: quia nec ipse Deus aliter erga seipsum operationem habet. Oportuit igitur, ad perfectionem optimam universi, esse aliquas creaturas intellectuales.
>
> (Ibid., n. 1231)

The other arguments go on to amplify on different aspects of these basic arguments. They do not add much that is of interest to us here, except perhaps a reminder that the perfection of creation consists in similitude to God. "Perfectio autem universitatis creaturarum consistit in similitudine ad Deum: sicut etiam perfectio cuiuslibet effectus in similitudine ad causam agentem" (Ibid., n. 1233).

If we apply what is said in these two arguments, especially in the second, to the beings that have no intelligence, they seem to be left in a rather precarious position. Each one of them and all of them taken together, singulae et omnes, may possess a certain similitude to God in their being and their nature, but they are radically incapable of returning to God by themselves through their own action. St. Thomas is not particularly troubled by this, since he views the lower beings as essentially ordered to the higher, the intellectual creatures, to man to be more exact, and through man, to God,[1]

---

[1] Cf. S.T. I, q. 65, a. 2, c; C.G. III, c. 112, n. 2858; Comp. Theol. c. 148, nn. 296-297; In II Sent. d. 1, q. 2, a. 3.

but the point brings out how, even from the point of view of the extrinsic good of the universe, a complementarity between the material and the immaterial is called for.

The arguments of St. Thomas to prove the need of intellectual creatures for the perfection of the universe do not prove the existence of separated substances higher than man and lower than God, the existence of what Christian tradition has called angels. The existence of men in the universe would satisfy all the exigencies brought up in the arguments. Separated substances, however, were an important part of the philosophical considerations in St. Thomas's day. Their existence was accepted as a matter of Faith, but philosophers had long spoken of such substances independently of the Faith. Anaxagoras had posited such a substance first, an intelligence, in order to explain how corporal things came to be distinct from one another after their primordial confusion. Plato, following another way, arrived at a plurality of incorporeal substances, the separate ideas of the things found in matter. Aristotle proceeded in still another way; he argued from the perpetuity of the celestial motions. None of these three ways, however, had any real value for St. Thomas. "Sed istae viae non sunt nobis multum accomodae: quia neque ponimus mixtionem sensibilium cum Anaxagora, neque abstractionem universalium cum Platone, neque perpetuitatem motus cum Aristotele" (De Spir. Creat. q. un., a. 5, c). After such a rejection of what

were considered the principal philosophical ways to prove the existence of separated substances, today we would be inclined simply to drop the whole matter of angels and treat only of God in philosophy among the separated substances. But such was not the attitude of St. Thomas. If the ancient ways of the philosophers were closed, other ways had to be found: "unde oportet nos aliis viis procedere ad manifestationem propositi."

The reason why St. Thomas was intent upon retaining the matter of the angels even outside of Christian theology was that these intermediate substances had a rather important place in his understanding of the universe. In this we might say that he was influenced especially by Neoplatonism, particularly as found in the Elementatio Theologica of Proclus and in the Liber De Causis, but without forgetting that he clearly rejected all forms of emanationism connected with these intermediate substances.[1] Avicenna, for example, conceived of such separate intelligences in order to explain the passage from the One to the many of the material universe, but for St. Thomas there was no need for such an explanation outside of the Creator himself. "Causa agens non est in illis substantiis superioribus sicut in rebus materialibus, ut necesse sit ex uno tantum unum causari, quia causa et causatum in eis sunt secundum esse intelligibile. Unde secundum plura

[1] Cf. De Pot. q. 3, a. 16; De Subst. Sep. c. 10.

quae possunt intelligi ab uno, possunt ab uno plura causari. Et satis conveniens videtur, ut primus motus rerum corporalium, a quo omnes alii dependent, habeat pro causa principium immaterialium substantiarum, ut sit quaedam connexio et ordo sensibilium et intelligibilium" (In XII Metaph. lect. 9, n. 2560). St. Thomas thus saw no difficulty in positing God as the immediate cause of the material cosmos. In fact, he saw in that a better reason for affirming the unity of the intelligible and the sensible orders than could be found in the latent materialism of an Avicenna. St. Thomas's handling of separate substances in his theory of the universe was quite different from the latter's.

He actually proposed three ways of manifesting the existence of separate substances. The first starts precisely from the perfection of the universe. "Primo igitur apparet esse aliquas substantias omnino a corporibus absolutas ex perfectione universi" (De Spir. Creat. q. un., a. 5, c). This perfection seems to call for every kind of nature in the universe. Substance, however, is prior to corporeity and can exist without it, "cum ratio corporis quaedam accidentia, scilicet dimensiones, aliquo modo respiciat, a quibus non causatur subsistere. Relinquitur igitur quod post Deum, qui non continetur in aliquo genere, inveniantur in genere substantiae aliquae substantiae a corporibus absolutae."

The second way complements this first by being somewhat more concrete. It starts from the order of the universe, or more precisely from the continuity that is characteristic of this order.

> Secundo potest idem considerari ex ordine rerum, qui talis esse invenitur ut ab uno extremo ad alterum non perveniatur nisi per media: sicut sub corpore caelesti invenitur immediate ignis, sub quo aer, sub quo aqua, sub quo terra, secundum scilicet consequentiam nobilitatis et subtilitatis horum corporum. Est autem in summo rerum vertice id quod est omnibus modis simplex et unum, scilicet Deus. Non igitur possibile est quod immediate sub Deo collocetur corporalis substantia, quae est omnino composita et divisibilis. Sed oportet ponere multa media per quae deveniatur a summa simplicitate divina ad corpoream multiplicitatem; quorum mediorum aliqua sunt substantiae incorporeae corporibus non unitae, aliqua vero substantiae incorporeae corporibus unitae. (Ibid.)

The last kind of substance alluded to is, of course, man. The impossibility of going immediately from the simplicity of God to the multiplicity of matter is based here, not on a need for proportion between cause and effect conceived according to a model of causality in material things, as in Avicenna and Neoplatonism, but on God himself, who creates freely according to his wisdom, a wisdom that is outwardly expressed precisely in the order that he actually creates.[1] St. Thomas takes an example from cosmology, the order of nobility which follows

---

[1] Note, however, that elsewhere St. Thomas insists on a certain need for proportion to argue in favor of a large number of separate substances in between the corporeal being and God, but there he does so in terms of the proximate end, as opposed to the more remote end, and not in terms of efficient causality. He is arguing against the Aristotelian position concerning the restricted number of separate intelligences. Cf. De Subst. Sep. c. 2, n. 56.

the order of place. Another excellent example could be found in psychology, the order of generation, quod paulatim ex imperfecto ad perfectum procedit.

The third way is similar to the first, but it starts not from the notion of substance, but from intelligence as such, "ex proprietate intellectus." We know an intelligence that is united to a body, the human intelligence. The act of understanding, as we saw before, and as is shown in III De Anima, is something that is beyond any body. Hence the intellectual substance, which is principle of such activity, is not of itself dependent on a body. It is above the order of bodies. The fact that human intelligence depends on certain operations performed by the human body, that it is united to a body, does not follow from its nature as intelligence, but from something else. It follows from its relative imperfection as intelligence, from the fact that it cannot know the truth of things immediately, but has to cull it through abstraction from phantasms. This is something incidental to intelligence as such, and does not have to be found necessarily in all intelligences. "Oportet etiam quod ante esse imperfectum in aliquo genere, inveniatur id quod est perfectum in genere illo; quia perfectum est naturaliter prius imperfecto, sicut actus potentia" (Ibid.). The existence of God, the first Intelligence, would not satisfy this exigency, since God is above all genera, so we are left with the conclusion

"quod oportet ponere aliquas substantias incorporeas corpori non unitas, utpote non indigentes aliquo corpore ad intellectualem operationem."

If we compare these three ways to prove the existence of separated substances with the five ways to prove the existence of God,[1] we see that they follow the same general direction from the sensible to the supra-sensible. But they do not aim at the same thing. The five ways are meant to prove the existence of a Being who simply transcends the universe as such, but the three ways we have just seen prove the existence of beings that transcend only the material order and are intrinsic parts of the universe. They rest squarely on St. Thomas's fundamental conception of the universe as representing and imitating the divine perfection. They bring out the appertenance of the angels to the same universe as material things, composing with them a more perfect similitude of the divine Goodness. This is why, when St. Thomas asked himself whether the angels were created before the visible world, he had to answer in the negative.

> Angeli enim non solum sunt considerandi absolute, sed etiam in quantum sunt pars universi; et haec consideratio eorum intantum est magis attendenda, in quantum bonum universi praeeminet bono cuiuslibet creaturae particularis, sicut bonum totius praeeminet bono partis. Secundum autem quod considerantur Angeli ut partes universi, competit eis quod simul cum creatura corporali sint conditi. Unius enim totius una videtur esse productio. Si autem

---

[1] Cf. S.T. I, q. 2, a. 3.

> seorsum essent Angeli creati, viderentur omnino alieni ab ordine creaturae corporalis, quasi aliud universum per se constituentes. (De Pot. q. 3, a. 18, c)

St. Thomas goes on to add that this is said without prejudice to the other opinion held by some, that the angels had been created before the physical world by reason of their priority in dignity. This was an opinion that had been held by great Fathers of the Church, "magnorum Doctorum, scilicet Basilii, Gregorii Nazianzeni, et quorumdam aliorum," and St. Thomas was reluctant to reprove it as simply erroneous. But it is easy to see that it went against his whole conception of the universe. We might possibly apply the same kind of reserve to the three ways to prove the existence of separated substances, but St. Thomas himself does not seem to have done so. In those three ways the element of time does not intervene as it does in the question of simultaneous creation. The arguments are universally valid and the denial of the existence of separated substances would have to be considered simply as an error, even in philosophy, if we understand St. Thomas's theory of the universe rightly.

All this explains why we have had to allude so frequently to the angels throughout this study, and also why St. Thomas makes the order of divine Providence pass through the hands of the angels.[1] With all of that, however, it is still man who remains at the heart of St. Thomas's theory of the

---

[1] Cf. C.G. III, c. 78; S.T. I, q. 110, a. 1.

universe. Though he is the lowest of intellectual creatures, in him is the hinge on which the whole universe turns, thanks to his being the confines where the material and immaterial meet. This will be seen in one of the reasons given why it was more fitting for the Son of God to assume a human nature rather than an angelic nature.

> Homo etiam, cum sit creaturarum terminus, quasi omnes alias creaturas naturali generationis ordine praesupponens, convenienter primo rerum principio unitur, ut quadam circulatione perfectio rerum concludatur.
> (C.G. IV, c. 55, n. 3937e)

This argument appears only after some more properly theological arguments, as befits such a theological matter, but it presupposes everything we have seen on the order of generation and man's being the culmination and the term of this order.

Another argument includes the spiritual dimension of man as well.

> Homo enim, cum sit constitutus ex spirituali et corporali natura, quasi quoddam confinium tenens utriusque naturae, ad totam creaturam pertinere videtur quod fit pro hominis salute. Nam inferiores creaturae corporales in usum hominis cedere videntur et ei quodammodo esse subiectae. Superior autem creatura spiritualis, scilicet angelica, commune habet cum homine ultimi finis consecutionem, ut ex superioribus patet. Et sic conveniens videtur ut universalis omnium causa illam creaturam in unitatem personae assumeret in qua magis communicat cum omnibus creaturis.
> (Ibid., n. 3936a)

Separated substances may be higher than man in nature, but nothing in the universe surpasses man as far as the ordination to the Final End is concerned. "Angeli, licet sint superiores

quantum ad conditionem naturae, non tamen quantum ad ordinem finis, quia eodem beatificantur" (Ibid., n. 3930). This is true notwithstanding man's likeness to material things. "Quamvis autem quantum ad aliquas conditiones homo aliquibus creaturis existat inferior: ac etiam infimis creaturis in quibusdam assimiletur: tamen secundum ordinem finis, nihil homine existit altius nisi solus Deus, in quo solo perfecta hominis beatitudo consistit" (Ibid., n. 3924). In fact, it is precisely man's likeness to the lowest of beings that St. Thomas exploits to bring out his greater communication with all creatures--magis communicat cum omnibus rebus. Angels may know the universe more and better than man, and they may have a greater control over nature in their providence,[1] but quite paradoxically they do not have in their ontological constitution man's singular means of communicating with all creatures.[2]

We should keep in mind here also that only God creates. He alone is the cause of being as such. Separated substances cannot participate in this act which is proper to divinity any more than man, not even as instruments.[3] The influence of the separated substances on the order of nature is thus only

---

[1] Cf. De Pot. q. 6, a. 3, c: D.

[2] To see how this identity concerning order to final end can go with an inferiority of nature, and hence of capacity to attain the final end, cf. C.G. III, c. 25, nn. 2058-2059.

[3] Cf. supra, ch. 5, pp. 166-167, 175.

ad motum, and hence to the end of all movement in the universe, the production of a multiplicity of men. "Multitudo animarum pertinet ad essentialem perfectionem universi ultimam, sed non primam, cum tota corporum mundi transmutatio ordinetur quodammodo ad animarum multiplicationem; ad quam requiritur corporum multiplicatio" (De Pot. q. 3, a. 10, ad 4). In themselves, separated substances are not subject to change, and in this they are superior to man, but inasmuch as they play a role in the vicissitudes of this world, they serve man, or hinder him, in the case of bad angels, as he tends toward his end and the end of all movement. "Quaedam sunt quae habent participationem divinae bonitatis absolutam, ex qua provenit aliqua utilitas alicui rei: et talia essent etiam si illud cui provenit aliqua utilitas non foret: et per hunc modum dicitur quod angeli et omnes creaturae propter hominem a Deo factae sunt" (In II Sent. d. 1, q. 2, a. 3, o). Thus, while remaining superior to man, and as such the ones to whom man himself is ordered in a certain fashion, since the less perfect is ordered to the more perfect in the universe, separated substances can be said to act in the service of man when they exercise some influence in the material world. This is another consequence of man's unique place in the order of the universe.

We shall not say anymore than this on the influence of the separated substances in this world. But let us turn our attention briefly to man's own contribution to the

perfection of the universe, the contribution which is most properly his as a rational and intellectual being. His own perfection is very intimately connected with this promotion of the perfection of the universe. As a rational being he contributes most through the activities common to all rational creatures, to wit, understanding the truth, wanting the good, and doing justice--operationes communes omni rationali creaturae, ut est intelligere veritatem, diligere bona, et operari iusta (C.G. IV, c. 41, n. 3798). By reason of his place in the universe, last in the order of intelligences but at the summit in the order of generation, man has an irreplaceable part to play toward the perfection of the universe, for if all lower, infra-rational beings are ordered to him, it is also through him, as well as in him, that they attain their perfection as parts of the universe.

If it is in the course of nature, as we saw, that things serve man, it is imperative that man use them. This is what things are running to, as it were.

> Sicut agitur unumquodque cursu naturae, ita natum est agi. Sic autem videmus res cursu naturae currere quod substantia intellectualis omnibus aliis utitur propter se; vel ad intellectus perfectionem, quia in eis veritatem speculatur; vel ad suae virtutis executionem et scientiae explicationem, ad modum quo artifex explicat artis suae conceptionem in materia corporali; vel etiam ad corporis sustentationem, quod est unitum animae intellectuali, sicut in hominibus patet. (C.G. III, c. 112, n. 2861)

This is also what man's intelligence calls for, since, in

accordance with the ancient dictum, sapientis est ordinare,[1] the power of intelligence is of itself a power of order and government: "virtus autem intellectiva de se est ordinativa et regitiva" (C.G. III, c. 78, n. 2537). So it is because intelligence knows the reason and the order of things: "directiva alterius, quae magis rationem cognoscit" (Ibid., n. 2539).[2]

More often than not, when St. Thomas speaks of man's use of things in this world, he is quite prosaic. An example that recurs frequently is that of sustenance for the body, sustentatio corporis, and everything that goes with that. Today, with our greater awareness of food and population problems, we know this can be a greater challenge to man's reason and intelligence in disposing the things of his world than perhaps St. Thomas suspected. But the solution of such problems is very much in line with what he conceived as one of the functions of wisdom, namely, to supplement the order of nature by what he called art in its broadest sense, an order "quem ratio considerando facit in exterioribus rebus, quarum ipsa est causa, sicut in arca et domo" (In I Eth. lect. 1,

---

[1] Cf. In I Metaph. lect. 2, the masterful induction bringing out the architectonic superiority of wisdom ordering all activities of man and beast. Cf. also C.G. I, cc. 1-2; S.T. I, q. 1, a. 6, c.

[2] "Sicut dicit Philosophus in principio Metaph., sapientis est ordinare. Cuius ratio est, quia sapientia est potissima perfectio rationis, cuius proprium est cognoscere ordinem. Nam etsi vires sensitivae cognoscant res aliquas absolute, ordinem tamen unius rei ad aliam cognoscere est solius intellectus aut rationis" (In I Eth. lect. 1, n. 1).

n. 1). Nature alone cannot satisfy man's physical needs, even such basic needs as housing and food, so reason has to find a better order.

Over and above this, man also has to use things in order to express himself as man, to exercise his power and unfold his knowledge: ad suae virtutis executionem et scientiae explicationem, ad modum quo artifex explicat artis suae conceptionem in materia corporali (C.G. III, c. 112, n. 2861). The whole material world is the field for this exercise of reason and wisdom, and by this activity of man the cosmos becomes more human and more one, for in this way form conquers matter more. "Quanto forma magis vincit materiam, ex ea et materia efficitur magis unum" (C.G. II, c. 68, n. 1453c). Just as man is more one than even the simplest of bodies, in spite of his greater material complexity, because his form, his rational soul, collects, as it were, this greater complexity into a more perfect unity, so also the cosmos becomes more one and more perfect as man's reason exercises a greater influence over it, draws it into greater unity as it draws it closer to its end, man himself, and recollects it from its multiplicity and dispersion in space and time.[1]

---

[1] "La hiérarchie de l'univers dans l'ordre de la finalité ne se ramène-t-il (sic) pas à la supériorité de l'âme sur le monde matériel dans lequel elle s'exprime en s'unissant substantiellement au corps? Si bien que la clé de la véritable

If this function of reason seems to lower it in the eyes of some, let it be recalled that it is more difficult, and hence the part of the more perfect, to draw a great multiplicity into unity. "Difficile est dirigere, idest rectificare, aut multa aut multoties: difficilius enim est rectum se habere in multis quam in paucis" (In II De Caelo lect. 18, n. 460(3)). It is relatively easy to do one thing in view of another, but when one has to go through a whole series of steps to arrive at one end, then it is much more difficult. "Manifestum est igitur quod maior virtus requiritur, et ex parte intellectus ordinantis et ex parte potentiae exsequentis, per plures actiones pervenire in finem, quam per unam vel pauciores" (Ibid.). The complexity of reason's task with regard to the material world is in proportion to its perfection, quodammodo omnia.

This would be the place to recall the text where St. Thomas speaks of the hand as the proper instrument provided

---

intention de saint Thomas serait: la victoire de la forme sur la matière par l'union substantielle, --la transcendance de l'âme humaine, spirituelle, immédiatement créée par Dieu, aimée et gouvernée pour elle-même, coextensive à tout l'univers, sur le monde matériel, --la théologie de l'Incarnation éclairant de sa lumière originelle, c'est-à-dire révélant le sens dernier, concrètement surnaturel, de l'ordre entier de la génération, depuis les corps élémentaires jusqu'au mouvement des étoiles: generatio tota ordinatur ad hominem sicut in ultimum finem huius generis?" André Hayen, La communication de l'être, vol. II, p. 92.

man by nature.[1] Non-rational animals generally have some particular instinct, some particular characteristic, or some particular ability, provided by nature as a means of survival. Man seems quite poor in this respect. He appears rather helpless in nature in comparison with other animals. But he is not without his means. "Homini ista provisa sunt in generali, inquantum sunt ei datae manus a natura, quibus sibi valeat varia et tegumenta et munimenta praeparare; et hoc ideo quia ratio hominis est ita multiplex et ad diversa se extendens, quod non possent determinata instrumenta ei sufficientia praeparari" (De Ver. q. 22, a. 7, c). Man is not just in the world to survive. Reason makes him look far beyond this strict minimum. It makes him turn even the task of survival into something higher than mere instinctual behavior. For this the hand is a very apt instrument, by reason precisely of its lack of specialization, its greater adaptability, for the universal scope of reason. We find in the Commentary on the Epistle to the Ephesians a text that telescopes things considerably, but is very significant in our present context, because of the prominence it gives to the hands of man while affirming his position at the summit of the universe. St. Thomas is trying to explain how certain

---

[1] In this St. Thomas is taking his clue from Aristotle, De Partibus Animalium, IV, c. 10, 687a1-b25, but he emphasizes the universal aspect of the relation between the hand and reason more than Aristotle did.

effects of God can be the reason for creating certain other effects, but that other effects, those that are simply first and intended for themselves, have no other reason to explain them but the will of God, and he gives the following example. "Deus vult hominem habere manum, ut serviat rationi, et hominem habere rationem, quia voluit esse hominem, et hominem esse voluit propter perfectionem universi" (Super Ad Eph. c. 1, lect. 1, n. 12).

The order that man is to instore into the universe is an order of justice. Justice is, in fact, a virtue which depends upon reason in a very special way. Reason is the norm of all virtues, but other virtues perfect man only in matters that pertain to him as an individual, "solum in his quae ei conveniunt, secundum seipsum." The norm in them is taken primarily with reference to the individual acting. With justice, however, something more has to be considered. "Rectum vero quod in opere iustitiae, etiam praeter comparationem ad agentem, constituitur per comparationem ad alium. ... Sic ergo iustum dicitur aliquid, quasi habens rectitudinem iustitiae, ad quod terminatur actio iustitiae etiam non considerato qualiter ab agente fiat" (S.T. II-II, q. 57, a. 1, c). In other virtues the norm of reason cannot be objective in this way, but in justice it has to be, because precisely justice orders man in matters that concern others, or the other, as such. The very name, justice, implies this,

for it commonly signifies an equality and equality is with reference to another, ad alterum.

The subject of the virtue of justice is not properly the intellect or reason itself, the cognitive faculty, but the appetitive faculty that is proportioned to reason, the will, the rational appetite. It cannot be the sensible appetite, because the sensible appetite does not rise above particularity. "Reddere autem unicuique quod suum est, non potest procedere ex appetitu sensitivo, quia apprehensio sensitiva non se extendit ad hoc quod considerare possit proportionem unius ad alterum; sed hoc est proprium rationis. Unde iustitia non potest esse sicut in subiecto in irascibili vel conpiscibili, sed solum in voluntate" (S.T. II-II, q. 58, a. 4, c). Thus, justice has a character of universality, as well as of objectivity, inasmuch as it follows the dimensions of reason itself.[1]

The 'other' who appears in the equality required by justice is a person in the face of another person or many

---

[1] In the Commentary on De Div. Nom. c. 8, lect. 4, St. Thomas notes that "inter virtutes morales, sola iustitia potest Deo magis proprie attribui" (n. 771), another indication that justice belongs properly to the rational appetite. This divine justice appears in the very order of the universe: "Sicut igitur ordo congruus familiae, vel cuiuscumque multitudinis gubernatae, demonstrat huiusmodi iustitiam in gubernante; ita ordo universi, qui apparet tam in rebus naturalibus, quam in rebus voluntariis, demonstrat Dei iustitiam" (S.T. I, q. 21, a. 1, c). It is because the order of the universe is such an order of divine justice that a certain evil, such as corruption or malum paenae, can be attributed to God as universal cause, ex consequenti et quasi per accidens: cf. S.T. I, q. 49, a. 2, c.

persons. "Et quia ad iustitiam pertinet actus humanos rectificare ... necesse est quod aequalitas ista quam requirit iustitia, sit diversorum agere potentium. Actiones autem sunt suppositorum et totorum, non autem proprie loquendo partium et formarum, seu potentiarum" (S.T. II-II, q. 58, a. 2, c). Nothing below man has the capacity to act through reason, and hence the diverse agents in question here must be human. We saw earlier, however, that the things of nature were ordered to man, not as to particular individuals, but as to the whole species. "Non enim aliquod corruptibilium ordinatur ad hominem propter unum individuum hominis tantum, sed propter totam humanam speciem" (C.G. III, c. 112, n. 2864).[1]

This raises a certain problem from the point of view of justice. Nature alone does not determine what belongs to whom, at least not in all instances. But in the instances where the order of nature does not determine what belongs to whom, how is that to be done? It has to be done, since justice orders men with reference to one another and to what is theirs as individual agents, aequalitas diversorum agere potentium. In answer to this question, St. Thomas shows how nature itself calls for the intervention of reason for its own perfection. It is found in his notion of the ius gentium.

> Respondeo dicendum quod, sicut dictum est, ius sive iustum naturale est quod ex sui natura est adaequatum vel commensuratum alteri. Hoc autem potest contingere

---

[1] Cf. supra, ch. 8, p. 314.

dupliciter. Uno modo secundum absolutam considerationem; sicut masculus ex sui ratione habet commensurationem ad feminam, ut ex ea generet; et parens ad filium, ut eum nutriat. --Alio modo aliquid est naturaliter alteri commensuratum, non secundum absolutam sui rationem, sed secundum aliquid quod ex ipso sequitur, puta proprietas possessionum. Si enim consideretur iste ager absolute, non habet unde magis sit huius quam illius; sed si consideretur per respectum ad opportunitatem colendi, et ad pacificum usum agri, secundum hoc habet quamdam commensurationem ad hoc quod sit unius, et non alterius, ut patet per Philosophum in II Polit.

Absolute autem apprehendere aliquid non solum convenit homini, sed etiam aliis animalibus. Et ideo ius quod dicitur naturale, secundum primum modum, commune est nobis et aliis animalibus. --A iure autem naturali sic dicto recedit ius gentium, ut Iurisconsultus dicit, quia illud omnibus animalibus, hoc solum hominibus inter se commune est. --Considerare autem aliquid, comparando ad id quod ex ipso sequitur, est proprium rationis, et ideo hoc idem est naturale homini secundum rationem naturalem, quae hoc dictat.

(S.T. II-II, q. 57, a. 3, c)

The intervention of reason in man's disposing of the material universe is crucial for two reasons. First, it makes a ius gentium, an order peculiar to men among themselves and common to all, necessary. Reason is what places man among the principal parts of the universe, the parts that are intended for themselves in the constitution of the whole. "Inter omnes autem partes universi, nobiliores sunt intellectuales creaturae: quia magis ad similitudinem divinam accedunt" (C.G. III, c. 112, n. 2859). Reason is what gives man a greater affinity to the universe as a whole. "Naturae autem intellectuales maiorem habent affinitatem ad totum quam aliae naturae: nam unaquaeque intellectualis substantia est quodammodo

omnia, inquantum totius entis comprehensiva est suo intellectu: quaelibet autem alia substantia particularem solam entis participationem habet" (Ibid., n. 2860).

These are reasons why man is intended for himself in the universe and other things are intended for him. But the fact is that every individual man is rational. This means that man is intended for himself not only as a species but according to each individual. "Creatura autem rationalis divinae providentiae substat sicut secundum se gubernata et provisa, non solum propter speciem, ut aliae corruptibiles creaturae: quia individuum quod gubernatur solum propter speciem, non gubernatur propter seipsum; ... Sic igitur solae rationales creaturae directionem a Deo ad suos actus accipiunt non solum propter speciem, sed secundum individuum" (Ibid., c. 113, n. 2869).

St. Thomas elaborates this idea when he wants to show that the number of the predestined is certain, that is to say determined not only formally, as a certain number, but also materially, as this number. After developing the analogy of the builder who determines in advance what will be the principal parts of the house, such as the foundation, the walls, and the roof, what their proportions will be with regard to one another, but without determining in particular how many pieces and stones will be required exactly for these principal parts, he goes on to say that God does something similar in creating

the universe.

> Sic igitur considerandum est in Deo, respectu totius universitatis, quae est eius effectus. Praeordinavit enim in qua mensura deberet esse totum universum, et quis numerus esset conveniens essentialibus partibus universi; quae scilicet habent aliquo modo ordinem ad perpetuitatem quot scilicet sphaerae, quot stellae, quot elementa, quot species rerum. Individua vero corruptibilia non ordinantur ad bonum universi quasi principaliter, sed quasi secundario, in quantum in eis salvatur bonum speciei. Unde, licet deus sciat numerum omnium individuorum, non tamen numerus vel boum, vel culicum, vel aliquorum huiusmodi est per se praeordinatus a Deo, sed tot huiusmodi divina providentia producit, quot sufficiunt ad specierum conservationem.
>
> Inter omnes autem creaturas principalius ordinantur ad bonum universi creaturae rationales, quae, in quantum huiusmodi, incorruptibiles sunt; et potissime illae quae beatitudinem consequuntur, quae immediatius attingunt ultimum finem. Unde certus est Deo numerus praedestinatorum, non solum per modum cognitionis, sed etiam per modum cuiusdam principalis praefinitionis.
>
> (S.T. I, q. 23, a. 7, c)

It is different in the case of the number of the reprobate, St. Thomas goes on to point out, since they appear to be ordered to the good of the elect, but the argument starts from the proposition that individual men, and not just the species as a whole, are principal parts of the universe.

St. Thomas speaks of this in terms of human liberty as well as of divine providence, for what sets man above all other corruptible things of nature is precisely that he is intended for himself as an individual. Other things in nature are not free because they are intended only for the species. "Quaecumque directionem habent in suis actibus solum secundum quod pertinent ad speciem, non est in ipsis agere vel non

agere: quae enim consequuntur speciem, sunt communia et naturalia omnibus individuis sub specie contentis; naturalia autem non sunt in nobis" (C.G. III, c. 113, n. 2870). This last phrase seems to mean that there are no purely natural, instinctual actions that are properly human. Reason should somehow intervene. The argument goes on to say: "Si igitur homo haberet directionem in suis actionibus solum secundum congruentiam speciei, non esset in ipso agere vel non agere, sed oporteret quod sequeretur inclinationem naturalem toti speciei communem, ut contingit in omnibus irrationalibus creaturis" (Ibid.). Thus, man's liberty appears as a proof for his being intended for himself secundum individuum. But liberty is also the origin of rights, for it is by their action that individual men appropriate to themselves the things that are left by nature in common for all men. This brings us to the second reason why the intervention of reason in man's disposing of the material universe is crucial.

Reason alone makes a ius gentium possible. This was insisted upon at the end of the text which situated the ius gentium with reference to purely natural ius. Although lower animals are without reason, they can, in a certain sense, perceive their 'right' to certain things, what is their due in the order of nature itself. The male of a species, for example, perceives the female of its species somehow as its own, and the parent claims its offspring as its own and undertakes

to nurture it. In this, lower animals have something in common with man, or man with lower animals. But still reason gives man a much broader, a much more extensive right over the things of nature. All things are his, to use propter se. And because there are many individuals, many persons who have this right to use, the rub is to find how the right of each over the whole of nature is to be exercised and realized to the common benefit of all. It is reason which raises this problem, since, by his reason, each individual human being has an affinity with everything. And it is reason that must find solutions, since only reason, and not the senses, can perceive relations between things and only reason can discover what follows from the natural order of things.

Just what reason will dictate in the order of justice is not for us to go into here. Suffice it to say that reason must consider all things and all persons together in their totality. It must not stop at partial views, and in this way confuse the iustum secundum quid with the iustum simpliciter, the source of many errors concerning justice, ancient as well as modern.[1] It must also keep from opposing the common good to the proper good, as if the common good were related to proper goods as proper goods are related among themselves.[2]

---

[1] Cf. In III Polit. lect. 3.

[2] "Dès lors, le bien commun n'est pas un bien qui ne serait pas le bien des particuliers, et qui ne serait que le bien de la collectivité envisagée comme une sorte de singulier. Dans ce cas, il serait commun par accident seulement, il

This is an even more subtle source of error that leads either to individualism or to totaliarianism, both aberrations of justice. It consists in ignoring the true nature of the common good. "Pars non dividitur contra totum, sed contra aliam partem" (S.T. I, q. 93, a. 2, ad 3).

St. Thomas's doctrine on the common good is largely dependent on his theory of the universe, as Professor de Koninck has shown,[1] a theory which we have been at pains to understand in its principal ramifications. Individual men, human persons, intended propter se as they are, remain nevertheless parts of the universe, no less than the separated substances of whom we spoke above,[2] and as such their proper

---

serait proprement singulier, ou, si l'on veut, il différerait du bien singulier des particuliers en ce qu'il serait nullius. Or, quand nous distinguons le bien commun du bien particulier, nous n'entendons pas par là qu'il n'est pas le bien des particuliers: s'il n'était pas le bien des particuliers, il ne serait pas vraiment commun.

Le bien est ce que toutes choses désirent en tant qu'elles désirent leur perfection. Cette perfection est pour chacune d'elles son bien--bonum suum--, et, en ce sens, son bien est un bien propre. Mais alors, le bien propre ne s'oppose pas au bien commun. En effet, le bien propre auquel tend naturellement un être, le 'bonum suum', peut s'entendre de diverses manières, selon les divers biens dans lesquels il trouve sa perfection." Charles de Koninck, De la primauté du bien commun contre les personalistes, pp. 9-10. The passage is quoted also in Prof. de Koninck's "In Defense of Saint Thomas: a Reply to Father Eschmann," Laval Théologique et Philosophique, vol. 1, no. 2, p. 20. In these two works, Prof. de Koninck has made it more than clear that, what he said about the common good, is really the doctrine of St. Thomas, a doctrine that is not as easy to grasp as some seem to think.

[1] Cf. "In Defense of Saint Thomas," pp. 14-41.

[2] pp. 343-347.

good belongs to the common good. "Omnes qui sub communitate aliqua continentur, comparantur ad communitatem sicut partes ad totum; pars autem id quod est, totius est; unde et quodlibet bonum partis est ordinabile in bonum totius" (S.T. II-II, q. 56, a. 5, c). And when St. Thomas writes ordinabile, he means that the good of the part, which is what a human person is in the community of men, has to be ordered to the common good through the virtue of general justice. It orders things immediately to the common good, "ordinat immediate ad bonum commune" (Ibid., a. 7, c), and through its influence it commands all other more particular virtues, whether they be of justice or of other moral virtues. "Ordinat actus omnium virtutum ad bonum commune" (Ibid., a. 6, c).

In fact, what St. Thomas writes of intellectual creatures in general is more true of men than of separated substances, since they are lower in the order of being and more profoundly engaged in the order of movement. Though every human being has a certain affinity with the universe as a whole, "anima humana est quodammodo omnia," and though each can attain God in a way that no other creature in the universe can, "quamvis creaturae rationales speciali quodam modo supra hoc habeant finem Deum, quem attingere possunt sua operatione, cognoscendo et amando" (S.T. I, q. 65, a. 2, c), still any man, compared to the universe, is only a part

of it, a part of the whole, and hence ordered in this regard to the whole.

> Considerandum est quod ex omnibus creaturis constituitur totum universum sicut totum ex partibus. Si autem alicuius totius et partium eius velimus finem assignare, inveniemus primo quidem quod singulae partes sunt propter suos actus; sicut oculus ad videndum. Secundo vero, quod pars ignobilior est propter nobiliorem; sicut sensus propter intellectum, et pulmo propter cor. Tertio vero, omnes partes sunt propter perfectionem totius, sicut et materia propter formam; partes enim sunt quasi materia totius. Ulterius autem, totus homo est propter aliquem finem extrinsecum, puta ut fruatur Deo. --Sic igitur et in partibus universi, unaquaeque creatura est propter suum proprium actum et perfectionem. Secundo autem, creaturae ignobiliores sunt propter nobiliores, sicut creaturae quae sunt infra hominem, sunt propter hominem. Ulterius autem, singulae autem creaturae sunt propter perfectionem totius universi. Ulterius autem, totum universum cum singulis suis partibus ordinatur in Deum sicut in finem, inquantum in eis per quamdam imitationem divina bonitas repraesentatur ad gloriam Dei. (Ibid.)

In reading this text, especially as it applies to the case of man, and remembering how perfection is understood as term of becoming, it is important to keep in mind also what was for St. Thomas in the concrete the perfection toward which the universe is moving. If this perfection consists principally in a community of men, as it did for St. Thomas, the idea of treating an intellectual being as a part does not seem so scandalous or paradoxical. "Homo naturaliter non solum de se ipso sollicitatur, sed etiam de statu communitatis cuius est pars, sicut vel domus, vel civitatis, aut etiam totius orbis" (De Pot. q. 5, a. 6, ad 3).

This inclination is in man inasmuch as he is a part of this community. It appears from the beginning of his life in the dire need he has of others in order to survive. It appears more positively as he approaches maturity, the perfection of age. "Homo autem, cum ad perfectam aetatem pervenerit, incipit iam communicare actiones suas ad alios; ante vero quasi singulariter sibi ipsi vivit" (S.T. III, q. 72, a. 2, c). And it appears in all sorts of forms where man is obliged to forget himself for the benefit of the community, in the obligation to obey positive law,[1] in the distribution of the goods of society,[2] and even in the prohibition of suicide. "Quaelibet pars id quod est, est totius. Quilibet autem homo est communitatis: et ita quod est, est communitatis; unde in hoc quod seipsum interficit, iniuriam communitati facit, ut patet per Philosophum in V Eth." (S.T. II-II, q. 64, a. 5, c). Hence it is that, even though, for St. Thomas, beatitude is in the vision of God, he can write that man's ultimate perfection is also found in communication with other intellectual substances: "Ultima autem perfectio eius est in hoc quod communicat cum substantiis aliis intellectualibus; et illa perfectio dabitur ei in caelo" (De Pot. q. 3, a. 10, c). Far from finding any opposition between the two, St. Thomas sees them as going together. God is the

---

[1] Cf. S.T. I-II, q. 96, a. 4, c.

[2] Cf. S.T. II-II, q. 61, a. 1, ad 2.

common object of beatitude for many persons precisely because he is a Good who is communicable to many and who communicates himself to more than one, because he is incommensurably transcendent with regard to the good of any particular creature.[1]

This inclination to communicate thus with others is an inclination of love basically and it has its foundation in a certain similitude. For St. Thomas, similitude is, properly speaking, a cause of love, and his procedure in showing this, with respect to the two kinds of love and two kinds of similitude, brings out the most profound meaning of the ordination to man we saw in the order of generation.

> Sed considerandum est quod similitudo inter aliqua potest attendi dupliciter. Uno modo, ex hoc quod utrumque habet idem in actu, sicut duo habentes albedinem dicuntur similes. Alio modo, ex hoc quod unum habet in potentia et in quadam inclinatione, illud quod aliud habet in actu: sicut si dicamus quod corpus grave existens extra suum locum, habet similitudinem cum corpore gravi in suo loco existenti. Vel etiam secundum quod potentia habet similitudinem ad actum ipsum, nam in ipsa potentia quodammodo est actus. (S.T. I-II, q. 27, a. 3, c)

The first kind of similitude is principle of love of friendship or benevolence, found properly in rational creatures alone. "Ex hoc enim quod aliqui duo sunt similes, quasi habentes unam formam, sunt quodammodo unum in forma illa;

---

[1]For a discussion of this rather difficult point on the relation between God as common good and God as the object of beatitude, cf. Charles de Koninck, "In Defense of Saint Thomas," pp. 45-69.

sicut duo homines sunt unum in specie humanitatis, et duo albi in albedine. Et ideo affectus unius tendit in alterum sicut in unum sibi, et vult ei bonum sicut et sibi" (Ibid.). Thus, man finds other selves in other men and tends, freely, to love each one of them as another self. Lower creatures are incapable of such love, because they lack intelligence. They are also unworthy of such love for the same reason. They are not selves in the proper sense of the term. The love which one animal has for another of the same species is only analogous to this.

Lower creatures, however, are capable of a lower kind of love, a kind that stems from the second kind of similitude.

> Sed secundus modus similitudinis causat amorem concupiscentiae, vel amicitiam utilis seu delectabilis. Quia unicuique existenti in potentia, inquantum huiusmodi, inest appetitus sui actus, et in eius consecutione delectatur, si sit sentiens et cognoscens. (Ibid.)

Only beings that have some form of consciousness can be said properly to delight in the acquisition of their proper perfection, their proper act, but the principle that St. Thomas enunciates here reaches down to the lowest form of material being. As the imperfect is ordered to the perfect, the less perfect to the more perfect, so also matter is in potency to form, and while it is subject to lower forms, it remains in potency to higher forms, and ultimately to the highest form

of all that is found in matter, the human soul.[1]

There is a desire for form in matter: "Cum forma sit quoddam bonum et appetibile, materia, quae est aliud a privatione et a forma, est apta nata appetere et desiderare ipsam secundum suam naturam" (In I Phys. lect. 15, n. 136(8)). This desire is not fully satisfied short of the human form. This is why we say man is the end intended in the order of generation as a whole, the perfection of the material universe. But it is truly a desire that is found in matter as such, "Quia si materia appetit formam, non appetit eam secundum quod est sub ipsa forma, quia iam non indiget esse per eam (appetitus autem omnis est propter indigentiam, quia est non habiti): similiter et non appetit eam secundum quod est sub contrario vel privatione, quia unum contrariorum est alterius corruptivum, et sic aliquid appeteret sui corruptionem" (Ibid.).

This desire proper to matter as such cannot be termed love in the most proper sense, reserved to intellectual creatures, nor in the diminished sense which is applicable to sensing creatures, but St. Thomas still calls it love, a natural love that is pure inclination, without apprehension,[2]

---

[1]Cf. C.G. III, c. 22, n. 2030; supra, ch. 8, pp. 308-311.

[2]Cf. S.T. I-II, q. 26, a. 1, c: "In unoquoque autem horum appetituum, amor dicitur illud quod est principium motus tendentis in finem amatum. In appetitu autem naturali, principium huiusmodi motus est connaturalitas appetentis ad id in quod tendit, quae dici potest amor naturalis: sicut ipsa connaturalitas corporis gravis ad locum medium est per gravitatem, et potest dici amor naturalis..."

a love caused by the similitude between potency and the act that perfects it. Such is the ultimate meaning of the community in matter as it is illuminated from the summit, for it would be meaningless to speak of love in the material universe if man were not of it. By his presence, however, as the principle of its perfection, man makes the universe itself an object of love in the highest sense. "In bono universi sicut principium continetur rationalis natura, quae est capax beatitudinis, ad quam omnes aliae creaturae ordinantur; et secundum hoc competit et Deo et nobis bonum universi maxime ex caritate diligere" (De Car. q. un., a. 7, ad 5).

Presupposed in the attaining of all this is knowledge, the proper activity of reason and intelligence. In disposing of the material universe men have to learn through experience. "In prima sui institutione cognitionem ordinis providentiae divinae in sola quadam universali cognitione suscipiunt; ad perfectam vero ordinis secundum singula cognitionem, oportet quod ex ipsis rebus, in quibus ordo divinae providentiae iam particulariter institutus est, perducatur" (C.G. III, c. 81, n. 2565). Knowledge is also required for communication between men, for knowledge is unitive, so to speak, and ignorance is divisive.

> Cognitio est unitiva mutuo eorum qui cognoscunt, non solum ex eo quod omnes cognoscentes veritatem, in una veritatis cognitione uniuntur, sed etiam, quia qui cognoscit veritatem, semper eodem modo, permanet, in una et eadem veritate; ignorantia vero, e contrario,

> est causa ut ignorans ex seipso transmutetur, hoc modo illud opinans ut dividatur ab aliis, quia ignorantium diversi diversa opinantur.
> (In De Div. Nom. c. 7, lect. 5, n. 738)

The fact is that knowledge is a cause of love, because love presupposes a certain grasp of the good to be loved,[1] but St. Thomas does not take the short view of this. To be able to love fully requires a broad view of things. A certain grasp of the truth in all its dimensions is needed for men to come together with any sort of constancy.

Knowledge, however, is not simply a means to attain perfection, but it is, for St. Thomas, the activity in which happiness itself is most properly to be found, contemplation of the truth. That is why, in speaking of man's use of nature, this is the first thing that occurs to him. "Sic autem videmus res cursu naturae currere quod substantia intellectualis omnibus aliis utitur propter se: vel ad intellectus perfectionem, quia in eis veritatem speculatur..." (C.G. III, c. 112, n. 2861). Knowledge of the truth can and should serve the various needs of human life. It is the most basic means of perfection we have. But it transcends all the needs it serves. It is perfection for the intellectual creature. We see this not only from the viewpoint of the creature itself, but also, somehow, from the viewpoint of the parts that constitute the universe as such. We saw above how being known

---

[1] Cf. S.T. I-II, q. 27, a. 2, c.

comes as a certain remedy for the imperfection of partiality that follows any created being.[1] From this St. Thomas was led to the idea that it is possible for the perfection of the whole universe to be found in one being. This is why, according to him, philosophers were led to think of knowledge of the universe and its causes as the ultimate perfection of man.

> 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 eius; in quo etiam finem ultimum hominis posuerunt, qui secundum nos, erit in visione Dei. (De Ver. q. 2, a. 2, c)

Still, the supernatural vision of God will not make knowledge of the universe superfluous, for, as St. Thomas remarks in the Compendium Theologiae, even with the vision of God as he is in himself, we can go on taking delight in contemplating his works. "Quamvis in statu perfectionis illius homo ex creaturis sensibilibus in Dei notitiam non adducatur, cum Deum videat in se ipso, tamen delectabile et iucundum etiam cognoscenti causam, considerare qualiter eius similitudo resplendeat in effectu: unde et sanctis cedet ad gaudium considerare refulgentiam divinae bonitatis in corporibus, et praecipue in caelestibus, quae aliis praeeminere videntur" (Comp. Theol. I, c. 170, n. 334). St. Thomas thus maintains his interest in the universe to the end. What he says here of the saints should certainly be said of himself.

---

[1] pp. 334-335.

We cannot conclude this chapter, however, without considering a text that presents the relation between the universe as a whole and intellectual creatures, which are quodammodo omnia, like no other. Man was said to be in the image of God, an expression reserved to persons. But if the universe as a whole is more perfect than any of its parts, it would seem that the universe itself should also be considered to be in the image of God, and not only man, as was the case. This St. Thomas would not admit.

> Dicendum quod universum est perfectius in bonitate quam intellectualis creatura, extensive et diffusive; sed intensive et collective similitudo divinae perfectionis magis invenitur in intellectuali creatura, quae est capax summi boni. (S.T. I, q. 93, a. 2, c)

This is a difficult text to understand all by itself and it has taxed the interpreters of St. Thomas considerably.[1] Perhaps some of the things we have seen in this chapter will shed some light on it, for it seems to synthesize in four terms most of what we have seen.

Fr. Wright points out that, in answering the same difficulty before St. Thomas, St. Bonaventure had used the same distinction between extensive and intensive.[2] But it

---

[1] Cf. De Koninck, "In Defense of Saint Thomas," pp. 31-41; Wright, The Order of the Universe, pp. 131-133.

[2] op. cit., p. 132. Here is the text given from St. Bonaventure: "Ad illud quod obicitur, quod magis assimilatur universum totum quam rationalis creatura; dicendum, quod assimilari dicitur dupliciter: intensive vel extensive. Et extensive verum est, quod magis assimilatur mundo

should be noted that St. Thomas does not merely repeat St. Bonaventure. He does much more. The continuation of St. Thomas's text shows he had the same solution in mind as St. Bonaventure, in general. "Unde cum dicitur quod sola natura intellectualis est ad imaginem Dei, non excluditur quin universum secundum aliquam sui partem sit ad imaginem Dei, sed excluduntur aliae partes universi" (Ibid.). He writes this in virtue of the principle that the part is not opposed to whole, but to another part. The universe is in the image of God in virtue of some of its parts, the intellectual natures, but some of its parts, infra-intellectual natures, are not in the image of God. In explaining the meaning of intensive in his distinction, St. Bonaventure had merely alluded to the difference between lower natures and intellectual natures, without reference to the idea of the universe he had used in explaining what he meant by extensive. St. Thomas keeps his idea of the universe clearly in perspective to explain both sides of the distinction. And it is precisely this idea of the universe which had led him to add two terms to the distinction. The world is more perfect extensive et diffusive, while intellectual creatures are more perfect intensive et collective. Not enough attention has been given to this

---

archetypo sive Deo maior mundus quam minor, sive universitas tota quam rationalis creatura. Qualitative sive intensive est a converso propter magnam distantiam aliquarum partium eius, in quibus relucet divina bonitas de longinquo sicut in vestigio" (In III Sent. d. 2, a. 1, q. 1, ad 4).

addition. Commentators have focused mostly on the difference between extensive and intensive, and on the relation to the divine goodness.

To grasp the significance of St. Thomas's addition we must attend more to the relation between the universe as a whole and the intellectual creatures which, while being parts, are also quodammodo omnia. If we read the distinction extensive-intensive in the light of De Veritate q. 2, a. 2, c, we see that, while extensive may apply mainly to the material components of the universe, it can also include the intellectual creatures, inasmuch as they are parts of the universe, parts that are limited in perfection and whose imperfection calls for a certain complement. This complement comes through intellectual creatures exercising their activity of knowing and thus becoming quodammodo omnia, resuming in themselves, intensive, the perfection of the whole.

The rapprochement of extensive with diffusive, and of intensive with collective justifies this. But the distinction diffusive-collective itself suggests a further elaboration of the same idea. We know how much St. Thomas insisted on the need for multiplicity and diversity in creation to represent more perfectly what in God is found simpliciter et uniformiter.[1] Multiplicity and diversity is diffusion of the divine perfection, a diffusion that has to be brought back to

---

[1]Cf. ch. 3.

the divine goodness as to its final end. This is done through the action of the creatures themselves, for creatures tend to be assimilated to God not only through their being, but also through their action. In fact, the closer a creature is to the First Cause, the more perfect it is, the greater is its activity. The creatures that are more remote from God are those with least activity. We saw a text where St. Thomas affirmed that, if creatures could not and did not truly and really act, there would be no order between things, no universe in the proper sense of the term, the highest perfection in creation. "Si autem rebus subtrahantur actiones, subtrahitur ordo rerum ad invicem: rerum enim quae sunt diversae secundum suas naturas, non est colligatio in ordinis unitatem nisi per hoc quod quaedam agunt et quaedam patiuntur" (C.G. III, c. 69, n. 2447).[1]

It remains, however, that infra-rational creatures cannot attain God through their action. They can be assimilated to him remotely in causando, but they are incapable of the perfection which comes from knowing and loving him. From this incapacity C.G. II, c. 46, argued to the need of intellectual beings in creation, "quod oportuit ad perfectionem aliquas creaturas intellectuales esse." What is lacking infra-rational creatures in the return to God is supplied by

---

[1] We underline the term colligatio to bring out the significance of this text with what now concerns us. It is very closely related to the term collective.

their relation to intellectual creatures and the activity of the intellectual creatures themselves. The couplet diffusive-collective thus recalls another fundamental couplet of St. Thomas's thought, that of exitus-reditus, but in function of the creature that is pivotal in this circulation (in the etymological sense) of being in the universe,[1] from Cause to effect and back from effect to Cause.

In short, our text might be articulated more completely, but no less accurately, as follows. The universe is more perfect in that it extends and embraces more than the intellectual creatures, for, besides the intellectual creatures themselves, it also includes the various species of material nature. "Melius est universum in quo sunt angeli et aliae res, quam ubi essent angeli tantum, quia perfectio universi attentidur essentialiter secundum diversitatem naturarum" (In I Sent. d. 44, q. 1, a. 2, ad 6). Besides, each intellectual creature is itself only a part of the whole universe. But on the other hand, intellectual creatures are themselves more perfect in that they resume the perfection of the universe intensively in themselves through their knowing and draw its multiplicity and diversity into a greater unity (colligatio), overcoming in this way the differences that could otherwise

---

[1]As long as we are insisting on the notion of return, let us note that the notion is also in the idea of the universe itself. As the final cause governs the perfection the universe, so also it gives it its direction, not away from God but toward him, nor merely diffusive but also collective at the same time.

keep the parts of the universe from communicating within the whole, and bringing them together into what can be most properly called a universe (collective). The reason why intellectual creatures can 'intensify' and 'collect' the perfection of the universe in this way is precisely that they are themselves capable of the highest Good, capaces summi boni. They can come to know and to love God, the highest Good of whom the universe is the most perfect representation and who is the extrinsic good of the universe. God is, in fact, the extrinsic good of intellectual creatures, their final end, without the mediation of any other creature, as is the case for lower creatures. Though they are parts, they are also quodammodo omnia. Their presence and their activity in the universe makes the universe more like God than it would be without them, so that we can say the universe is in the image of God according to a part of it, its principal part, while some parts of it are not in the image of God. "Cum dicitur quod sola natura intellectualis est ad imaginem Dei, non excluditur quin universum secundum aliquam sui partem sit ad imaginem Dei, sed excluduntur aliae partes universi" (S.T. I, q. 93, a. 2, ad 3).[1]

---

[1] In a text Fr. Wright quotes (p. 132), Maritain excludes precisely what St. Thomas says, in very word, is not to be excluded. He does so quite emphatically, for he insists on elle seule as opposed to l'univers tout entier both at the beginning and at the end. "Et il (supposedly St. Thomas) enseigne qu'en elles se trouve l'image de Dieu, non

Thus, St. Thomas could affirm on the one hand that the universe is more perfect extensive et diffusive, and on the other that an intellectual creature is more perfect intensive et collective, without taking back or minimizing what he said about the universe as such, because for him the universe is above all a community of persons, each intelligent and free, all capable of the summum bonum, being

---

dans aucune autre créature, non pas même dans l'univers tout entier; car sans doute il y a extensive et diffusive, ou quant à l'étendue et à la variété selon lesquelles les attributs divins sont manifestés, plus de similitude participée des perfections divines dans l'ensemble total des créatures, mais intensive et collective, c'est-à-dire à considérer le degré de perfection avec lequel chacun approche de Dieu selon sa capacité, la créature intelectuelle, quae est capax summi boni, est plus semblable à la perfection divine que l'univers tout entier; elle seule est proprement l'image de Dieu" (quoted from La personne et le bien commun, p. 15).

The cosmological significance of the text he is paraphrasing escapes Maritain almost entirely. He refers to it for a moment in connection with the first pole of St. Thomas's distinction, when it is practically impossible to ignore it, but in the second pole he ignores it completely. He speaks of the intellectual creature's relation to God as if it were all alone all of a sudden, as if it were no longer in the universe and of it.

What do the terms intensive et collective really mean for him? Can they mean much of anything apart from their cosmological significance? Most of what Maritain says about the intellectual creatures and their relation to God is true, but that is not the point St. Thomas happens to be making in the text. He is trying to see the superiority of the intellectual creature precisely in function of its place in the universe. In effect, Maritain has simply returned to the position as found in St. Bonaventure, before St. Thomas took it over. But in so doing he has hardened it, so that, while St. Thomas did not have to take exception to St. Bonaventure, but simply completed him in terms of his theory of the universe, he would have to take exception to Maritain.

brought to completion through the movement in which it expresses itself.[1] "Pertinet quidem ad amorem, qui debet esse inter homines, quod homo conservet bonum etiam uni soli homini. Sed multo melius et divinius est, quod hoc exhibeatur toti genti et civitatibus. Vel aliquando amabile quidem est, quod hoc exhibeatur toti genti, in qua multae civitates continentur. Dicitur autem hoc esse divinius, eo quod magis pertinet ad Dei similitudinem, qui est ultima causa omnium bonorum" (In I Eth. lect. 2, n. 30).

---

[1] Material things are ordered by nature to serve man, to be used by man, as he tends toward his perfection. This is their final end, their perfection. They are more perfect when they serve in this way than when they are in any other state, even if it be their proper place according to their nature. "Elementa perfectius esse habebunt in corpore hominis quam haberent in suis locis" (De Pot. q. 5, a. 10, ad 7). Without man, and without man's activity, nature remains essentially incomplete.

CONCLUSION

COMMUNITY AND DIVERSITY

Our study has ranged far and wide. We began with some rather plain talk about perfection, but as we advanced in the distinction between the different modes of perfection and their application to the universe as such, we were led to value more and more the complexity that goes with the perfection of the universe, its exigency for both unity and diversity, the two modes of order that it entails. In studying the principles of order in the universe, as both Aristotle and St. Thomas saw them, we discovered the importance of distinguishing not only between four causes, but also between the particular and the universal mode of causality, since the order of the universe depends more per se on universal causes than on particular causes, though the less universal causes are not without their importance, given the continuity in this order. Finally, the working out itself of order in the universe appeared on three different levels, the level of local motion, the level of transmutation in matter with a gradual emergence of more and more perfect forms, and the level of rational and intelligent activity shaping and complementing the order of nature itself according to its own

exigencies, all three levels organically and functionally interconnected.

Along our circuitous way we referred frequently to the Aristotelian cosmological system, and in one chapter we dwelt at some length on what we know to be an essentially obsolete model of the material universe. This was necessary not only for reasons that should govern any study that purports to present what an author actually thought, but also in order to bring out certain principles that were operative in St. Thomas's understanding of the cosmos, principles which St. Thomas respected even though he rejected certain inferences that had been made from them by Aristotle. This attempt to bring out at least something of the cosmological framework in which St. Thomas worked has brought out, we hope, how St. Thomas was not one to philosophize, nor even to theologize, up in the air. His worldview was dominated by the Christian Faith, but it remained a view of the world, a view that was relevant to the men of the thirteenth century. He believed in the Incarnation most ardently, that the Word became flesh, and so it was important for him to understand man and his place in the universe all the more. He believed in the resurrection of the dead, and hence an end to what he understood to be the present state of the cosmos, <u>sub motu existentis</u>, and he was not above investigating the implications of this for his model of the universe or that which men of his age

thought to be the true one. There is something quaint and naive in our eyes about the conception of the cosmos which is taken for granted in these discussions on the final state of the universe, and the study of them often seems tedious to us, since we have such a different conception of the cosmos, but they show St. Thomas's genuine involvement as a theologian and a philosopher in the questions of his day and they exemplify his method of procedure in terms of this involvement, something which disciples of St. Thomas today would do well to learn.

It is beyond our scope to discuss here in what sense the doctrine of St. Thomas remains relevant today or what would be required to make it relevant,[1] but it should be clear that a negative attitude with regard even to the positive sciences is unwarranted. In recent years, because of his insistence, as a historian, on the originality of the medieval theologians who used Aristotelian notions in their theological reflection, and in so doing supposedly trans-

---

[1]Thomas Litt, Les corps célestes dans l'univers de S. Thomas, pp. 5-12, discusses certain influences of the theory of the heavenly bodies on the philosophy of St. Thomas and consequently certain requirements for adaptation in terms of modern cosmologies. André Hayen, La communication de l'etre, vol. 1, pp. 41-59, discusses the more general problem of being a disciple of St. Thomas in philosophy today. Both of these authors, one in a particular way, the other in a more universal way, state the conditions of fidelity to St. Thomas as a teacher and a master in a more positive fashion and better than Prof. Gilson, whose views we will discuss presently.

formed them almost beyond recognition,[1] Prof. Gilson has been fostering what appears as just such an attitude. "We are interpreting history in a misleading way," he writes, "if we say that scholasticism tied the Christian faith to the ancient philosophy of Aristotle, and, consequently, that we are invited by its example to do the same thing with the philosophy of our age. What scholastic theology did was rather to create, in the human meaning of this word, a new metaphysics, whose truth, being independent of the state of science at any given historical moment, remains as permanent as the light of faith within which it was born."[2]

This is an oversimplification, based in part on a confusion between the historical and the doctrinal viewpoint, on the one hand, and on the other, between the mode of philosophy and the mode of theology. It flies in the face of St. Thomas's own doctrine as expressed in the Summa contra Gentiles on the distinction between the two ways to be followed, one in the teaching of philosophy (in doctrina philosophiae) and the other

---

[1] We are referring to certain ideas which Prof. Gilson first expressed in a paper read at the International Congress of Scholasticism held in Rome in 1950. An English translation of this paper appeared as "Historical Research and the Future of Scholasticism," The Modern Schoolman, XXIX (1951), 1-10, and has been reproduced in A Gilson Reader: Selections from the Writings of Etienne Gilson (Paperback Image Book), pp. 156-167. We shall quote according to the latter. The same views were expressed again more recently by Prof. Gilson in his book, Le philosophe et la théologie (cf. especially the last chapter, "The Future of Christian Philosophy"), and have been followed by Anton Pegis in The Middle Ages and Philosophy.

[2] Reader, p. 164.

in the teaching of faith (in doctrina fidei), one which is a way of investigation going from creatures to their Creator and the other which starts from God and embraces creatures afterward and only as they are in relation to God,[1] and it flies also in the face of the constantly reiterated adage that our knowledge begins in the senses. To be sure, it is not a matter of subordinating metaphysics to the positive or the other more experiential sciences. This has never been the case for anyone who understood metaphysics properly, and it was not the case with Aristotle either, although he saw a closer link between physics and metaphysics than Plato did. But it remains that, unless we are going to admit the idealist conception of metaphysics, metaphysics, even the metaphysics of the act of being, does not exist for us in a kind of separated state. This is not what the 'separation' of intelligence or of metaphysics means. For us, it has to start from our experience of the world and it always retains this reference to this world. "Hoc nomen 'qui est'...significat

---

[1] C.G. II, c. 4, n. 876a. Cf. also the first chapters of Book I, where the way of philosophy in its search for truth, and ultimately for God, is discussed and shown to be harduous and difficult, time consuming, and frought with dangers of error. These are the characteristics of the way of investigation, and the fact that one is a theologian or has simply the wisdom of Faith, does not lift one above these conditions, as one might be led to believe from Prof. Gilson's position. Though it is illumined from on high, Christian reason still needs manuductio, which follows a way of investigation and discovery, propter defectum intellectus nostri, as St. Thomas himself says in S.T. I, q. 1, a. 5, ad 2 (see also a. 9, ad 1).

per modum cuiusdam concretionis et compositionis" (In I Sent. d. 8, q. 1, a. 1, ad 3).

To speak, then, of a Thomistic doctrine of being as if it hovered somehow above our experience of the world, a complete doctrine in itself, ready to correct and to purify other doctrines, but itself above any such need, as if it were simply the last word, can lead to missing the point of its relevance to the world we experience and even to emptying it of its real meaning, since meaning without relevance is often no meaning at all. One could agree with Prof. Gilson, when he writes, "the future of scholasticism, then, will not consist in adapting the medieval metaphysics of being and its causes to the ceaseless variations in science and philosophy; its future will rather consist in integrating to it the positive acquisitions made by science and philosophy in order to correct and purify them,"[1] but not without remarking that the process of integrating, of which he speaks, might and should perhaps also be viewed as a process of enrichment in the understanding of that metaphysics itself. In fact, one might very well question the possibility of any understanding of metaphysics that makes no attempt at articulating its roots in experience. Will it be anything more than a system of notions, a very intelligent system perhaps, but still only a system of notions in the face of which another system of

[1] Reader, p. 164.

notions could be posited as equally relevant, and equally true? Regardless of what Metaphysics might be in se, or regardless of what the metaphysics of being might have been in the mind of St. Thomas, which is not necessarily what it is in the mind of Prof. Gilson, it still has not been entirely understood and it still stands to be enriched by our changing experience of the world. This is not a matter of adapting the metaphysics of being to ceaseless variations of science and philosophy, but rather of discovering ourselves that metaphysics, with the help of great teachers like St. Thomas, starting from our own experience, from the world as we understand it.

To sum up St. Thomas's way of conceiving the universe, we could begin with a text where he speaks of four conditions, as it were, for things to constitute one universe together. First, they must all have something in common: "sicut multi lapides conveniunt ad invicem ex quibus constituitur domus et similiter omnes partes universi conveniunt in ratione existendi" (In De Div. Nom. c. 4, lect. 6, n. 364). Second, inasmuch as the parts of the universe are diverse, different from one another, they must be adapted to one another in some order: "non enim ex coemento et lapide fieret domus, nisi invicem coaptarentur et similiter partes universi coaptantur, inquantum possunt cadere sub uno ordine" (Ibid.). Third, one part must complement and help the other: "sicut paries et

tectum sustentantur ex fundamento et tectum cooperit parietem et fundamentum et similiter in universo superiora dant perfectionem inferioribus et in inferioribus virtus superior manifestatur" (Ibid.). All this is without prejudice to the differences between things, absque praeiudicio distinctionis rerum. Fourth, there must be a certain proportion in all the parts, a certain arrangement between them from which their togetherness will come: "partibus ergo sic dispositis, sequitur earum compositio in toto, secundum quod ex omnibus partibus universi constituitur una rerum universitas" (Ibid.).

In the concrete, as St. Thomas goes on to point out, this order of the universe can be viewed in either one of two ways, either as some things are contained by other things, per modum continentiae localis, or as some things come before others in time, quantum ad temporalem successionem. But there is more to their constituting a universe than being simply in one another. These are only conditions, conditions of possibility for the universe to be, but not its final reason. "Invenitur autem duplex ordo in rebus. Unus quidem partium alicuius totius seu alicuius multitudinis adinvicem, sicut partes domus adinvicem ordinantur. Alius est ordo rerum in finem. Et hic ordo est principalior, quam primus. Nam, ut Philosophus dicit in XI Metaph., ordo partium exercitus adinvicem, est propter ordinem totius exercitus ad ducem" (In I Eth. lect. 1, n. 1). The analogy with the house remains insufficient

by itself to render an understanding of the universe. It is too static and it leaves us with an understanding that is too abstract still. It must be complemented,[1] and the allusion to the XIIth Book of the Metaphysics gives us an indication of where to look for this complement.

We have encountered countless reverences to this text of Aristotle in our study. At this point it would be good to examine in what sense precisely it influenced St. Thomas's thinking. This can be seen most clearly in the sixth Quaestio Quodlibetalis, a. 19. The question is whether the empyrean has any influence upon other bodies, those below it, necessarily, since the empyrean was supposed to be highest region of the cosmos. At first, as he remarks himself, he had tended to say no because the empyrean was seen merely as the place of the blessed. "Quidam ponunt caelum empyreum non habere influentiam in aliqua corpora, quia non est institutum ad effectus naturales, sed ad hoc quod sit locus beatorum. Et hoc quidem mihi aliquando visum est." But after a more careful consideration of the matter, St. Thomas was brought to change this rather exclusive position for something that was more in keeping with a proper understanding of the universe, and this precisely under the influence of the XIIth Book of the Metaphysics, as he indicates in his text.

---

[1] We discussed the mutual complementarity of the two analogies, that based on the house and that based on the army, in relation to the order of the universe in ch. 6, pp. 212-214.

> Sed diligentius considerans, magis videtur dicendum quod influat in corpora inferiora, quia totum universum est unum unitate ordinis, ut patet per Philosophum, XII Metaph. Haec autem unitas ordinis attenditur secundum quod quodam ordine reguntur corporalia per spiritualia, et inferiora corpora per superiora, ut Augustinus dicit in III de Trinit. Unde, si caelum empyreum non influeret in corpora inferiora, caelum empyreum non contineretur sub unitate universi: quod est inconveniens.

The opening allusion to a more careful consideration, diligentius considerans, is very significant here, for it is reminiscent of another question, akin to this one in certain respects and written about the same time: whether the angels were created at the same time as the visible world, De Potentia, q. 3, a. 18. In his treatment of this question, St. Thomas first gives the opinions of certain Fathers who had argued to a certain anteriority for the creation of angels by reason of their superiority over the visible world, but he points out that a more careful consideration again will bring us to adopt the other view which was that of Augustine.

> Sed si diligenter consideretur alia opinio, quae est Augustini et aliorum Doctorum, quae etiam modo communiter tenetur, rationabilior invenitur. Angeli enim non solum sunt considerandi absolute, sed etiam in quantum sunt pars universi: et haec consideratio eorum intantum est magis attendenda, in quantum bonum universi praeeminet bono cuiuslibet creaturae particularis, sicut bonum totius praeeminet bono partis. Secundum autem quod considerantur Angeli ut partes universi, competit eis quod simul cum creatura corporali sint conditi. Unius enim totius una videtur esse productio.

This seems the more reasonable position only if one looks at the matter from the viewpoint of the universe.

But what precisely is the most proper perspective in which to view the universe? What does the more diligent consideration discover in this perspective that was not seen before? In one case, that of the text from the Quodlibetal, it is a matter of action and influence, in the other, the text from De Potentia, it is a matter of the good. Is there a connection between these two? To be sure, since every agent acts in view of an end, a good to be attained, and ultimately the question of the universe hinges on that of its final end. This is its ultimate unifying principle. In the order of things in themselves, an order that reaches back even to their intrinsic principles and their specific determination, one begins to see the order of the universe, but not fully. This comes only when one considers the action of things, their interaction in view of one common final end. "Res diversae quae singulae quamdam perfectionem habent in seipsis, quodam ordine adunatae, aliquod totum perficiunt" (In De Div. Nom. c. 2, lect. 5, n. 197).[1] Every creature that exists, not only has the form which determines its species, but also an order to something else. "Quaelibet creatura subsistit in suo esse, habet formam, per quam determinatur ad speciem, et

---

[1]This is only the fifth stage according to the order in which it appears. The first four stages are as follows: "In rerum essentiis, talis quidem processus et ordo considerantur: nam, primo, sunt rerum principia; secundo, substantia rei, ex principiis constituta; tertio, determinatio rei ad propriam speciem quae est per formam; quarto, ex forma consequitur res perfectionem, non solum in esse specifico, sed etiam quantum ad propriam operationem et finem: quinto..."

habet ordinem ad aliquid aliud" (S.T. I, q. 45, a. 7, c). It is in terms of this order to something else that every creature begins to seek its second perfection, and in so doing begins to constitute the ultimate perfection of the universe itself. This is why St. Thomas could argue against the occasionalists from the order of the universe itself: "rerum enim quae sunt diversae secundum suas naturas, non est colligatio in ordinis unitatem nisi per hoc quod quaedam agunt et quaedam patiuntur" (C.G. III, c. 69, n. 2447). This is why also he had to insist that, ultimately, perfection and good is more than simply a matter of beings taken singly and in themselves, but rather a matter of the order between them. "Perfectio et bonum quae sunt in rebus extra animam, non solum attenditur secundum aliquid absolute inhaerens rebus, sed etiam secundum ordinem unius rei ad aliam" (De Pot. q. 7, a. 9, c).

Let us now turn to the Commentary on Book XII of the Metaphysics, where St. Thomas gives his own understanding of the text that influenced him so much. Aristotle's viewpoint in the text had been simply that of the good, but at the outset St. Thomas specifies and concretizes the outlook, as it were, by introducing the notion of form in connection with the intrinsic good of the universe, inasmuch as the form can be viewed as the end in a process of coming to be.[1]

---

[1] As is well known by now, this manner of viewing the form is from Aristotle himself. Cf. In II Phys. lect. 11, n. 242(2), and supra, ch. 1, p. 42.

> Bonum enim, secundum quod est finis alicuius, est duplex. Est enim finis extrinsecus ab eo quod est ad finem, sicut si dicimus locum esse finem eius quod movetur ad locum. Est etiam finis intra, sicut forma finis generationis et alterationis, et forma iam adepta, est quoddam bonum intrisecum eius, cuius est forma. Forma autem alicuius totius, quod est unum per ordinationem quamdam partium, est ordo ipsius: unde relinquitur quod sit bonum eius.
>
> (In XII Metaph. lect. 12, n. 2727)

Thus, order is analogous to the form in things that come to be, and it is in its order that the perfection, the intrinsic good, of the universe would consist. The question is whether the cosmos has a good such as this, or only a good that would be separated from it. "Quaerit ergo Philosophus utrum natura totius universi habeat bonum et optimum, idest finem proprium, quasi aliquid separatum a se, vel habeat bonum et optimum in ordine suarum partium, per modum quo bonum alicuius rei naturalis est sua forma" (Ibid.).

The answer is, of course, that it has both. The bonum separatum is the Prime Mover which, in the preceding part of the Book, has already been shown to be the that upon which the whole of nature depends as from its end and its good. The reality of the bonum ordinis is simply inferred from the reality of the separated good. "Et, quia omnia, quorum unum est finis, oportet quod in ordine ad finem conveniant, necesse est, quod in partibus universi ordo aliquis inveniatur; et sic universum habet et bonum separatum, et bonum ordinis" (n. 2629).[1]

---

[1] Justification for this inference will be found in a proper understanding of the order of final causes. Cf. ch. 5, pp. 189-191.

It is at this juncture that the example of the army comes in, to provide an analogy for understanding the connection between the good of order among the parts and the separated good: "sicut videmus in exercitu: nam bonum exercitus est et in ipso ordine exercitus, et in duce, qui exercitui praesidet" (n. 2630). St. Thomas points out how the order of parts is subordinate to the end, and how the end itself is principle of order, so that the whole order of the universe is in view of the Prime Mover, "ut scilicet explicatur in universo ordinato id quod est in intellectu et voluntate primi moventis" (n. 2631). But this is not what we are primarily interested in here. What concerns us more is the order of the universe itself, and it is to this that he turns his attention next: qualiter partes universi se habeant ad ordinem.

Two things are evident at the outset and must be accounted for: all things are ordered somehow, but not all are ordered in the same way. Within order there is diversity, such as that which we see between the different animals and plants. These are not without some relation to one another, "sed est aliqua affinitas et ordo unius ad alterum. Plantae enim sunt propter animalia, et animalia sunt propter homines. Et quod omnia sint ordinata adinvicem, patet ex hoc, quod omnia simul ordinantur ad unum finem" (n. 2362). Man stands at the pinnacle of nature, and from that vantage point he is

the principle of order in nature, inasmuch as all inferior bodies are ordered to him; and he can, by his own initiative, introduce a new dimension of order. But he is still only a part of the universe, and as such he is himself ordered, along with the others, though in his own peculiar way, to the good of the universe as a whole.

Another example is now introduced to provide an analogy for understanding how things are differently ordered within one and the same order, the relation between community and diversity-within-community, the example of the well governed household. In such a community, apart from the father, who is head and the one who establishes order, there are different grades, first, the sons, second, the servants, third, domestic animals, and so on. These various grades are related to the order of the house differently, in accordance with the wishes of the father. The sons are most intimately connected with it, so that nothing should come from them apart from this order. "Filiis enim non competit ut faciant aliquid casualiter et sine ordine; sed omnia, aut plura eorum quae faciunt, ordinata sunt" (n. 2633). The servants, on the other hand, and the domestic animals, do not participate so intimately of this order, <u>qui est ad commune</u>, and so there is a great deal that can come from them which is quite contingent with regard to the familial order, and is casual in its regard, to use the expression of St. Thomas.

"Et hoc ideo quia parvam affinitatem habent cum rectore domus, qui intendit bonum domus commune" (Ibid.).

Perhaps the most important element which the example of the household adds over and above the example of the army is this notion of affinity, an affinity that is not merely contingent upon the choice of the head, as in an army, but an affinity that comes from the nature of things themselves. This is especially significant when we see how it applies in the order of nature itself, for nature is like the father in a household. It is the principle found in the things of nature which brings each and every one of them to perform according to its role in the order of the universe. Just as the father directs the members of the household, so also every being of nature is directed through its own proper nature, which inclines it to act according to the order given to the whole of nature by its creator, even though each may not know that order itself.

Now this inclination in the proper nature of each thing must not be viewed only in an order to the particular good of that thing. The good of a thing, its proper good, must be viewed also on a much broader basis, as St. Thomas himself does in the following text. "Bonum autem suum cuiuslibet rei potest accipi multipliciter. Uno quidem modo, secundum quod est eius proprium ratione individui. Et sic appetit animal suum bonum cum appetit cibum, quo in esse

conservatur. Alio modo, secundum quod est eius ratione speciei. Et sic appetit proprium bonum animal inquantum appetit generationem prolis et eius nutritionem, vel quicquid aliud operetur ad conservationem vel defensionem individuorum suae speciei. Tertio vero modo, ratione generis. Et sic appetit proprium bonum in causando agens aequivocum: sicut caelum. Quarto autem modo, ratione similitudinis analogiae principiatorum ad suum principium. Et sic Deus, qui est extra genus, propter suum bonum omnibus rebus dat esse" (C.G. III, c. 24, n. 2052). The proper good of anything, thus, is not just its particular good but also the universal good as it can be achieved by its activity, and in accordance with its place in the natural order. "Res enim naturalis non solum habet naturalem inclinationem respectu proprii boni, ut acquirat ipsum cum non habet, vel ut quiescat in illo cum habet; sed etiam ut proprium bonum in alia diffundat, secundum quod possibile. Unde videmus quod omne agens, inquantum est actu et perfectum, facit sibi simile. Unde et hoc pertinet ad rationem voluntatis, ut bonum quod quis habet, aliis communicet, secundum quod possibile est" (S.T. I, q. 19, a. 2, c).

Not all things are related to the universal end of nature in the same way, however. All of them have one thing in common, namely, their own distinct identity with their own proper activity, but not all participate in the good of

the whole equally by their activity.

> Est enim aliquid commune omnibus; quia necesse est quod omnia ad hoc perveniant quod discernantur, idest quod habeant discretas et proprias operationes, et quod etiam secundum substantiam discernantur; et quantum ad hoc in nullo deficit ordo. Sed quaedam sunt quae non solum hoc habent, sed ulterius talia sunt, quod omnia, quae sunt in eis 'communicant ad totum', idest sunt ordinata ad bonum commune totius.
>
> (In XII Metaph. lect. 12, n. 2635)

These latter things are those in which nothing happens apart from the order of nature nor by chance. The things that are subject to chance, however, or those that sometimes depart from the order of nature, are not simply excluded from communication in the universal good as such, for it remains that every being of nature is ordered to the common good according to its natural action. Those that never depart from the natural order, those in whose action there is never any deficiency, simply communicate in the whole according to all that they are--habent omnia sua communicantia ad totum. Those, on the other hand, that do depart from the natural order and are subject to chance, such as the corporeal beings about us, do not communicate in the whole so fully--non habent omnia sua communicantia ad totum.

It is clear that both Aristotle and St. Thomas are thinking in terms of their dichotomy between the incorruptible celestial bodies and the corruptible terrestrial bodies here, as well they might, since the question concerns the material universe as well as the universe simply as a whole, including

separate substances. But before we examine how what is said can be applied to the universe apart from that dichotomy, let us examine St. Thomas's summation carefully.

> Est ergo summa solutionis, quod ordo duo requirit, scilicet ordinationem distinctorum et communicantiam distinctorum ad totum. Quantum autem ad primum indeficienter est ordo in omnibus; quantum autem ad secundum est quidam ordo indeficienter in aliquibus, quae suprema et proxima primo principio, sicut substantiae separatae et corpora caelestia, in quibus nihil casualiter accidit et praeter naturam: in aliquibus autem deficit, scilicet corporibus, in quibus interdum aliquid accidit casualiter praeter naturam. Et hoc propter remotionem a primo principio semper eodem modo se habente. (n. 2637)

Thus, in order to understand how beings are related to one another in the universe, qualiter partes universi se habeant ad ordinem, one has to take two things into consideration, an ordination of these beings as distinct (ordinationem distinctorum) and their communication in the whole which they constitute (communicantiam ad totum). And affinity is the key to the connection between the two. Each being communicates in the whole in proportion to its affinity with the principle of the order, for as St. Thomas writes elsewhere, "eodem modo aliqua progrediuntur a primo principio et ordinantur in finem ultimum" (De Ver. q. 5, a. 4, c). Certain things are more remote from the first principle than others, and their ordination to the final end is proportionately less constant, just as their being is proportionately less permanent. They are more likely to decline from the order to the

final end.[1] The others are not so likely, and some may not at all.

But does not the well ordered action of the parts of the universe itself bring about a greater affinity to the whole, and hence a greater communication in the whole? And does this not reflect back even on the distinction and the diversity between beings? This is something that St. Thomas does not discuss here in commenting Aristotle, but the question would seem to arise inevitably, if the action of these parts is truly necessary for constituting the universe, and if it is possible for certain actions to be deficient. The second or the final perfection of the universe is something more than its first perfection. Should this not affect the aspect of diversity in the universe as well as that of communication? In the last analysis, is not a complete reversal of perspective called for?

> Si igitur in productione rerum sunt aliquae causae secundae, oportet quod fines earum et actiones sint propter finem causae primae, qui est ultimus finis in rebus causatis. Hoc autem est distinctio et ordo partium universi, qui est quasi ultima forma. Non igitur est distinctio in rebus et ordo propter actiones secundarum causarum; sed magis actiones secundarum causarum sunt propter ordinem et distinctionem in rebus constituendam. (C.G. II, c. 42, n. 1185)

---

[1] Never completely, however, but only to a certain extent, as is clear from the text: interdum aliquid accidit casualiter praeter naturam. Nor is that which occurs outside the order of nature simply outside of all order, extra omnem ordinem, but only outside the direct order, extra ordinem rectum, according to a distinction which we will see presently.

This contradicts nothing of what we said before, but it adds new importance to the idea of secondary causes and their role in the constitution of the universe. It also brings out the fact that, as a being enters into greater communication with the whole, it does not become less itself, but more so. This is made possible by the total transcendence of the final end in which they communicate. "Illae operationes quarum una ordinatur ad aliam, possunt esse simul, et unum totum constituere" (De Pot. q. 4, a. 5, ad 19). And if free agents, in order to assert their particular identity the more strongly, were to deliberately go against the order of the whole, not only would they fail in their intention, but they would arrive at a result directly contrary to it. "Si autem providendo ordinem non servant, quod congruit creaturae rationali, sed provideant secundum modum brutorum animalium, et divina providentia de eis ordinabit secundum ordinem qui brutis competit; ut scilicet ea quae in eis vel bona vel mala sunt, non ordinentur in eorum bonum proprium,[1] sed in

[1]Article 5 of this same question had previously shown that this is the way in which God provides for rational creatures: "Et ideo humani actus sub divina providentia cadunt hoc modo quod ipsi provisores sunt suorum actuum, et eorum defectus ordinantur secundum quod competit eisdem, non solum quod competit aliis; sicut peccatum hominis ordinatur a Deo in bonum eius, ut cum post peccatum resurgens humilior redditur, vel saltem in bonum quod in ipso fit per divinam iustitiam, dum pro peccato punitur. Sed defectus in aliis creaturis contingentes, ordinantur solum in id quod competit aliis, sicut corruptio huius ignis in generationem illius aeris."

bonum aliorum" (De Ver. q. 5, a. 7, c). Thus, the free agent going against the order of divine providence tends to become less free and to lose what sets him off from a lower order of being. The possibility of his doing this, however, remains a condition for his being able really to enter into the order of the good and contribute positively to it. "Hoc quod homo habet providentiam suorum actuum, ad nobilitatem eius pertinet" (De Ver. q. 5, a. 5, ad 2).

Whatever may be said for Aristotle and his understanding of the unmoved Mover, for St. Thomas the ordination of things to the final perfection of the universe was the order of divine Providence. In the commentary on Aristotle's text we saw him refer to the divine Intelligence and Will, as well as the divine Goodness, something which he certainly did not consider out of keeping with the Philosopher's intention, for, as the father stands with regard to the order of his household, so also God stands with regard to the order of the universe. And in his discussion of providence in De Veritate we find him making such ample use of Aristotle's doctrine on the order of the universe that we could think of that discussion, especially in articles three, four, and five, as another commentary on the Metaphysics, wherein the ideas are applied to beings in particular.

After determining what is meant by providence and how it applies to the world, the question arises whether

divine Providence extends to corruptible beings as well as incorruptible. With regard to the latter, no one seemed to have any particular difficulty, but Averroes and others had maintained that providence embraced only the species and not the individuals of the different species, since only the species as such had permanence and not the individuals.[1] Against this position, St. Thomas begins by pointing out that the head of any complex whole, whether it be a nation, or a family, or a person, looks to the common good of the whole in its government, since that is the more eminent good. But this good in the universe is its order, "secundum quem optime collocatur unumquodque in ordine suo" (De Ver. q. 5, a. 3, c). This is what one has to attend to when speaking of divine Providence, whereas those who deny that it extends to corruptible beings attend only to what they are in themselves and how they might have been better. This is precisely the sort of thing the Philosopher was going against in Book XII of the Metaphysics, per similitudinem exercitus, in quo invenimus duplicem ordinem. We do not have to recite once again the explanation of this

[1] In I Sent. d. 39, q. 2, a. 2, presents this position and discusses it at length. Averroes had presented it as an interpretation of Aristotle in Book XII of the Metaphysics, but St. Thomas maintains that it is in opposition to what the Philosopher expressly states. "Ista opinio imponitur Aristoteli: quamvis ex verbis suis expresse haberi non possit, sed Commentator suus expresse ponit eam in XI Metaph., text. 52." The reference is to the text whose commentary we have been considering (cf. note on p.12).

distinction, but let us see how St. Thomas applies it to the universe here, by connecting it to the two modes of order in the universe which we saw in chapter four.

If we admit a distinction between corruptible and incorruptible parts in the universe, we shall have to say that they are ordered to one another, not per accidens, but per se. Otherwise they will not belong to one and the same order. "Unde Philosophus concludit, quod necesse est ponere in universo unum dominatum et non plures" (Ibid.). Now from the viewpoint of providence, there is another distinction to be understood, for some things can be intended propter se, while others are intended propter alia, "sicut in domo propter se providentur ea in quibus essentialiter consistit bonum domus, sicut filii, possessiones, et huiusmodi: alia vero providentur ad horum utilitatem, ut vasa, animalia, et huiusmodi" (Ibid.). And so it is in the universe: some beings are intended (providentur) propter se because the perfection of the universe consists in them essentially, and so they are permanent in being, as the universe itself is permanent; others, however, those that have no permanence, are intended only propter alia. The latter have permanence according to their species only, so that the species can be said to be intended propter se, but not the individuals that come and go, and are intended only for the conservation of the species, whereas the former are intended propter se both

according to species and according to individual. Thus it can be said that divine Providence extends to individual corruptible beings, though not in the same sense as for others, and in the next article, which deals with the actions of these beings and how these come under providence, St. Thomas will insist that it extends even to that which is most particular in everything.[1]

Thus, even though today we do not admit the existence of incorruptible bodies, the distinction between the two orders of providence remains relevant to our view of the universe, since the distinction between species and individuals still holds. But if now we look at the way in which the actions of rational creatures come under providence, we shall see that the distinction is even more significant. Freedom is a mark of the nobility of these creatures and a sign of their affinity to the first Principle. It is an indication that these creatures are not less, but more closely associated with divine Providence which is itself eminently

---

[1] Cf. also article 8. There is also another distinction to be made, beyond those we have just seen, in order to show how even the deficient or disordered actions of particular beings are not simply outside the order of all providence, but still somehow come under it, but we do not have to go into it here. It is stated in terms of *providia in recto ordine* (*providentia approbationis*) and *extra rectum ordinem* (*providentia concessionis*). The basis of this distinction is that certain things are ordered both *sicut ordinatum ad aliud* and *sicut ad quod aliud ordinatur*, whereas others, such as monsters in nature, are only ordered to another, but have nothing ordered to them, since they come to be such through an absence of some cause or other.

free, so much so that, as St. Thomas says quite pointedly, they are themselves providers.

> Inter omnia vero alia spirituales substantiae magis primo appropinquant; unde et eius imagine insignitae dicuntur; et ideo a divina providentia non solum consequuntur quod sint provisa, sed etiam quod provideant. Et haec est causa quare praedictae substantiae habent suorum actuum electionem, non autem ceterae creaturae, quae sunt provisae tantum, et non sunt providentes. (De Ver. q. 5, a. 5, c)

Freedom is thus not a denial or a minimizing of divine Providence, but a greater participation in it. It does, however, introduce certain complications, for it introduces a new principle of defectibility in the order of the universe. Without free agents in the universe, there would be defectibility only ex parte provisi, and not ex parte providentiae, since divine Providence itself is indefectible. It is its own end and hence its own rule. But it is not so with created providence. "Creaturae, quibus providentia est communicata, non sunt fines suae providentiae, sed in alium finem ordinantur, scilicet Deum[1] ... Et inde est quod in eorum providentia accidere potest defectus non tantum ex parte provisorum, sed ex parte providentium" (Ibid.). But without free agents, the world would also be lacking the nobility and the perfection which they add to it, and so this added defectibility is more than adequately compensated for.

---

[1] C.G. III, c. 112, n. 2865, will add to this a reference to the perfection of the universe as well.

Arguing from the incorruptibility of spiritual creatures, among whom he expressly includes man, inasmuch as his form is something spiritual, St. Thomas then shows that such beings are intended propter se even as individuals. But the same thing could be brought out from something we saw insisted upon so much in our last chapter: anima est quodammodo omnia. This is indeed what St. Thomas does himself elsewhere.

> Manifestum est partes omnes ordinari ad perfectionem totius: non enim est totum propter partes, sed partes propter totum sunt. Naturae autem intellectuales maiorem habent affinitatem ad totum quam aliae naturae: nam unaquaeque intellectualis substantia est quodammodo omnia, inquantum totius entis comprehensiva est suo intellectu: quaelibet autem alia substantia particularem solam entis participationem habet. (C.G. III, c. 112, n. 2860)

If, then, as follows from this argument, all other things are for the sake of intellectual or spiritual creatures, the only difficulty that remains concerning the final perfection of the universe is just how the spiritual creatures themselves are to be ordered to one another while remaining free and always propter se.

This is a question we touched upon in our last chapter, but it cannot be fully answered in philosophy. Like the number of the elect, the precise shape the community of spiritual creatures will take ultimately remains hidden to reason, though something of the shape of things to come has been revealed through the risen Christ.[1] One thing

---

[1] St. Thomas had little to say about the communal aspect of final beatitude. He touches upon it in S.T. I-II,

should be clear, however. The identity and the diversity of the different free agents will not disappear in their community, but rather will appear all the more, because each agent will have reached the fullness of his stature and, in so doing, will have provided his share, under divine Providence, in the common good as well as become a part of it. Nor will this greater diversity take away from the communication in the whole, the communicantia ad totum which will have become a communio in toto, for, as we have seen so often in the course of our study, the greater the diversity of a whole the greater is its perfection and its unity. Thus it is that St. Thomas can truly say, "in bono universi sicut principium continetur rationalis creatura, quae est capax beatitudinis, ad quam omnes aliae creaturae ordinantur; et secundum hoc competit et Deo et nobis bonum universi maxime ex caritate diligere" (De Car. q. un., a. 7, ad 5). In loving the good of the universe, we shall be loving the persons with whom this good has become identified.

---

q. 4, a. 8, for example, "utrum ad beatitudinem requiratur societas amicorum," but only to say that it is not strictly necessary, since man finds the plenitude of beatitude in God, though it does make for the bene esse beatitudinis. He is satisfied with saying, "quasi concomitanter se habet amicitia ad beatitudinem perfectam" (ad 3). His fundamental position on the perfection of the universe, it seems to us, would call for a stronger statement than that, though the strength of this concomitanter and the bene esse beatitudinis should not be minimized. For the most part, however, apart from the discussions on the final state of the glorified body, St. Thomas usually discusses only the vertical dimension, the relation to God, in beatitude. He hardly discusses even the diversity of mansions in the Father's house, except in relation to God (cf. In Joan. c. 14, lect. 14; S.T. III, Suppl., q. 93).

BIBLIOGRAPHY

A. WORKS OF ST. THOMAS

For our study we use the manual edition of Marietti for the most part, and it is from this edition that we quote, except for those works, of course, which have not appeared in this edition. The Marietti edition reproduces the Leonine text, as far as it goes, and along with its own numbering in the Commentaries on Aristotle it gives the numbering of the Leonine edition for each lesson, in parentheses. We follow the same practice in our own references.

a) Theological Syntheses

Scriptum super Libros Sententiarum Magistri Petri Lombardi. Tomes I & II, ed. P. Mandonnet, O.P. Paris: Lethielleux, 1929. Tomes III & IV, ed. Maria Fabianus Moos, O.P. Paris: Lethielleux, 1933 & 1947.

Liber de Veritate Catholicae Fidei contra errores Infidelium seu 'Summa contra Gentiles'. 2 vols. Ed. Ceslai Pera, O.P. Turin-Rome: Marietti, 1961.

Summa Theologiae. 4 vols. Ed. de Rubeis et al. Turin-Rome: Marietti, 1948.

b) Disputations

Quaestiones Disputatae. Tome I: De Veritate. Ed. Raymundo M. Spiazzi, O.P. Turin-Rome: Marietti, 1953. Tome II: De Potentia. De Anima. De Spiritualibus Creaturis. De Unione Verbi Incarnati. De Malo. De Virtutibus in Communi. De Caritate. De Correctione Fraterna. De Spe. De Virtutibus Cardinalibus. Ed. P. Bazzi, O.P. et al. Turin-Rome: Marietti, 1953.

Quaestiones Quodlibetales. Ed. Raymundo M. Spiazzi, O.P. Turin-Rome: Marietti, 1956.

c) Commentaries on Aristotle

In Aristotelis Libros Peri Hermeneias et Posteriorum Analyticorum Expositio. Ed. Raymundo M. Spiazzi, O.P. Turin-Rome: Marietti, 1955.

In octo Libros Physicorum Aristotelis Expositio. Ed. M. Maggiolo, O.P. Turin-Rome: Marietti, 1954.

In Aristotelis Libros De Caelo et Mundo, De Generatione et Corruptione, et Meteorologicorum. Ed. Raymundo M. Spiazzi, O.P. Turin-Rome: Marietti, 1952.

In Aristotelis Librum De Anima Commentarium. Ed. Angelo M. Pirotta, O.P. Turin-Rome: Marietti, 1959.

In duodecim Libros Metaphysicorum Aristotelis Expositio. Ed. Raymundo M. Spiazzi, O.P. Turin-Rome: Marietti, 1950.

In decem Libros Ethicorum Aristotelis ad Nicomachum Expositio. Ed. Angelo M. Pirotta, O.P. Turin-Rome: Marietti, 1934.

In Libros Politicorum Aristotelis Expositio. Ed. Raymundo M. Spiazzi, O.P. Turin-Rome: Marietti, 1951.

d) Commentaries on Scripture

Expositio in Job ad literam. Ed. Vives, vol. 18, 1-227.

Super Evangelium S. Ioannis Lectura. Ed. Raphaelo Cai, O.P. Turin-Rome: Marietti, 1952.

Super Epistolas S. Pauli Lectura. 2 vols. Ed. Raphaelo Cai, O.P. Turin-Rome: Marietti, 1953.

e) Other Works

Opuscula Theologica. Vol. I: De Re Dogmatica et Morali: Compendium Theologiae ad fratrem Reginaldum. etc. Ed. Raymundo M. Verardo, O.P. Turin-Rome: Marietti, 1954. Vol. II: De Re Spirituali: Contra Impugnantes Dei Cultum et Religionem. De Perfectione Vitae Spiritualis. etc. Expositio super Boetium De Trinitate et De Hebdomadibus. Ed. Raymundo M. Spiazzi, O.P. and M. Calcaterra, O.P. Turin-Rome: Marietti, 1954.

In Librum Beati Dionysii De Divinis Nominibus Expositio. Ed. Ceslai Pera, O.P. Turin-Rome: Marietti, 1950.

In Librum De Causis Expositio. Ed. Ceslai Pera, O.P. Turin-Rome: Marietti, 1955.

Opuscula Philosophica: De Ente et Essentia. De Substantiis Separatis. De Unitate Intellectus contra Averroistas...De Regimine Principum ad Regem Cypri. Ed. Raymundo M. Spiazzi, O.P. Turin-Rome: Marietti, 1954.

B. WORKS CONCERNING ST. THOMAS

a) Books

Aristote et saint Thomas d'Aquin. Journées d'études internationales. "Chaire Cardinal Mercier"; Louvain-Paris: Publications Universitaires & Béatrice Nauwelaerts, 1957.

Chenu, M.-D., O.P. Introduction à l'étude de Saint Thomas d'Aquin. "Université de Montréal-Publications de l'Institut d'Etudes Médiévales"; Montréal-Paris: Institut d'Etudes Médiévales & Librairie Philosophique J. Vrin, 1950. Toward Understanding Saint Thomas. Tr. A.-M. Landry, O.P. and D. Hughes, O.P. Chicago: Henry Regnery Company, 1964.

Chesterton, Gilbert Keith. Saint Thomas Aquinas. London: Sheed & Ward, 1933. 2nd. ed. "Image Books"; Garden City, N.Y.: Doubleday & Company, Inc., 1956.

De Finance, Joseph, S.J. Etre et agir dans la philosophie de saint Thomas. "Bibliothèque des Archives de Philosophie"; Paris: Beauchesne, 1945.

Gilson, Etienne. Le Thomisme: Introduction à la Philosophie de saint Thomas d'Aquin. 5e édition. "Etudes de Philosophie Médiévale" I; Paris: Librairie Philosophique J. Vrin, 1947. The Christian Philosophy of Saint Thomas Aquinas. Tr. L.K. Shook, C.S.B. New York: Random House, 1956.

Hayen, André, S.J. La communication de l'être d'après saint Thomas d'Aquin. Vol. I: La métaphysique d'un théologien. Vol. II: L'ordre philosophique de saint Thomas. "Museum Lessianum" Section Philosophique; Paris-Louvain: Desclée de Brouwer, 1957 & 1959.

_____. Saint Thomas d'Aquin et la vie de l'Eglise. "Essais Philosophiques" 6; Louvain: Publications Universitaires de Louvain, 1952.

Henle, Robert J., S.J. Saint Thomas and Platonism: a Study of the 'Plato' and 'Platonici' Texts in the Writings of Saint Thomas. The Hague: Martinus Nijhoff, 1956.

Legrand, Joseph, S.J. L'univers et l'homme dans la philosophie de saint Thomas. Vol. I: L'univers. Vol. II: L'homme dans l'univers. "Museum Lessianum" Section Philosophique no. 27; Bruxelles-Paris: L'Edition Universelle & Desclee de Brouwer, 1946.

Litt, Thomas, O.C.S.O. Les corps célestes dans l'univers de saint Thomas d'Aquin. "Philosophes Médiévaux" VII; Louvain-Paris: Publications Universitaires & Béatrice-Nauwelaerts, 1963.

Marty, François, S.J. La perfection de l'homme selon saint Thomas d'Aquin: ses fondements ontologiques et leur vérification dans l'order actuel. "Analecta Gregoriana" vol. 123, Series Facultatis Philosophicae: sectio B, n. 11; Rome: Presses de l'Université Grégorienne, 1962.

Saint Thomas d'Aquin aujourd'hui. "Recherches de Philosophie" VI; Paris: Desclée de Brouwer, 1963.

Wright, John H., S.J. The Order of the Universe in the Theology of St. Thomas Aquinas. "Analecta Gregoriana" vol. 89, Series Facultatis Theologicae: sectio B, n. 30; Rome: Apud Aedes Universitatis Gregorianae, 1957.

b) Articles

De Koninck, Charles. "In Defense of Saint Thomas: a Reply to Father Eschmann's Attack on the Primacy of the Common Good." Laval Théologique et Philosophique, I (1945), no. 2, 9-109.

Ducoin, Georges, S.J. "Saint Thomas commentateur d'Aristote. Étude sur le commentaire thomiste du livre L des Métaphysiques d'Aristote." Archives de Philosophie, XX (1957), 78-117, 240-271, 392-445.

Eschmann, I. Th., O.P. "In Defense of Jacques Maritain." The Modern Schoolman, XXII (1945), 183-208.

Ramirez, Jac. M., O.P. "Doctrina S. Thomae Aquinatis de Bono Communi Immanenti Totius Universitatis Creaturarum." Doctor Communis, XVI (1963), 41-68.

C. OTHER WORKS REFERRED TO

a) Books

Aristote et les problèmes de méthode. Communications présentées au Symposium Aristotelicum, Louvain, 1960, Louvain-Paris: Publications Universitaires & Béatrice-Nauwelaerts, 1961.

Collingwood, R. G. The Idea of Nature. "A Galaxy Book"; New York: Oxford University Press, 1960. Original: 1945.

De Koninck, Charles. De la primauté du bien commun contre les personalistes. Québec: Éditions de l'Université Laval, 1943.

Dreyer, J.L.E. A History of Astronomy from Thales to Kepler. 2nd ed., revised with a foreword by W.H. Stahl. New York: Dover Publications, Inc., 1953. Original title: History of the Planetary Systems from Thales to Kepler. Cambridge: Cambridge University Press, 1905.

Ernout, A. and Meillet, A. Dictionnaire étymologique de la langue latine. 4th ed. Paris: Klincksieck, 1959.

Gilson, Étienne. Le philosophe et la théologie. Paris: Librairie Arthème Fayard, 1960. The Philosopher and Theology. Tr. C. Gilson. New York: Random House, 1962.

Hartshorne, Charles. The Logic of Perfection and other Essays in Neoclassical Metaphysics. Lasalle, Ill.: Open Court Publishing Company, 1962.

Little, William, Fowler, H.W., and Coulson, J. The Shorter Oxford English Dictionary on Historical Principles. Rev. and ed. C. T. Onions. Oxford: Clarendon Press, 1933.

Lonergan, Bernard J. F., S.J. Insight: a Study of Human Understanding. New York: Philosophical Library, 1957.

Munitz, Milton K. Space, Time and Creation: Philosophical Aspects of Scientific Cosmology. Glencoe, Ill.: The Free Press, 1957.

Nuyens, Francois. L'évolution de la psychologie d'Aristote. "Aristote: Traductions et Etudes"; Louvain: Editions de l'Institut Supérieur de Philosophie, 1948.

Pegis, Anton C. (ed.) A Gilson Reader: Selected Writings of Etienne Gilson. "Image Books"; Garden City, N.Y.: Doubleday & Company, Inc., 1957.

_____. The Middle Ages and Philosophy: Some Reflections on the Ambivalence of Modern Scholasticism. Chicago: Henry Regnery Company, 1963.

Sciama, D.W. The Unity of the Universe. "Anchor Books"; Garden City, N.Y.: Doubleday & Company, Inc., 1961.

Sertillanges, Antonin G. D., O.P. Le problème du mal. 2 vols. Paris: Aubier, 1948 & 1951.

Simard, Emile. La nature et la portée de la méthode scientifique. Exposé et textes choisis de philosophie des sciences. 2nd ed. Québec-Paris: Les Presses Universitaires Laval & Librairie Philosophique J. Vrin, 1958.

Singh, Jagjit. Great Ideas and Theories of Modern Cosmology. New York: Dover Publications, Inc., 1961.

Solmsen, Friedrich. Aristotle's System of the Physical World: a Comparison with His Predecessors. Ithaca, N.Y.: Cornell University Press, 1960.

Whitehead, Alfred North. Process and Reality: an Essay in Cosmology. "Harper Torchbooks/The Academy Library"; New York: Harper & Brothers, 1957. Original: New York: Macmillan Company, 1929.

Wild, John. Human Freedom and Social Order: an Essay in Christian Philosophy. Durham, N.C.: Duke University Press, 1959.

b) Articles

Cobb, John B. "'Perfection Exists': a Critique of Charles Hartshorne." Religion in Life, XXXII (1963), 294-304.

DeKoninck, Charles. "Réflexions sur le problème de l'indéterminisme." Revue Thomiste, XLIII (1937), 227-252, 393-409.

Gilson, Etienne. "Historical Research and the Future of Scholasticism." The Modern Schoolman, XXIX (1951), 1-10.

Hartt, Julian. "The Logic of Perfection." The Review of Metaphysics, XVI (1963), 749-769.

Kuntz, Paul Grimley. "Mythical, Cosmic and Personal Order." The Review of Metaphysics, XVI (1963), 718-748.