

# ABSTRACT OF THESIS

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Title of Thesis THE UNDERSTANDING OF TRUTH IN THE THOUGHT OF  
ROBERT GROSSETESTE

The central purpose of this thesis is to offer an exposition of Robert Grosseteste's understanding of the nature of truth. The exposition itself follows closely Grosseteste's own ordering of truth which ranges from the supreme Truth down to logical or propositional truth. The supreme Truth, the truth of created res, cognitive or intellectual truth, and propositional truth are ordered in accordance with ontological priority and status. Primary emphasis is placed on the supreme Truth himself who is the Being and the Truth existing in and by himself and who is the Creator of the created orders of truth. Under the impact of St. Augustine's and St. Anselm's doctrines of truth Grosseteste conceives of truth as being or that which is, as that which shows forth that which is, as rightness rectifying, as rightnesses rectified, and as correspondence or right relations. The right relations which are of special interest to Grosseteste are those which prevail between the supreme Truth and created entities. It is shown how for Grosseteste the supreme Truth and his eternal Word are determinative of created truth and how the latter is measured and evaluated in accordance with the former. It is maintained that Grosseteste wants man's intellectual and propositional truth to be kept clearly subordinate to the truth of that which is known and expressed. Grosseteste stresses the ineffable character of the supreme Truth and the indigent and feeble character of man's effort to speak of this Truth. In chapter four it is shown how Grosseteste's ordo cognoscendi corresponds to and is bound up with his ordo essendi. His epistemological theory is very much grounded in his doctrine of truth.

In the thesis it is maintained that Grosseteste's doctrine of truth constitutes a rather crucial and critical juncture and stage in the understanding of truth within the Augustinian tradition. Although St. Augustine's and St. Anselm's doctrines of truth greatly influenced Grosseteste it cannot be said that the latter's doctrine of truth is simply a restatement of their doctrines. St. Augustine's and St. Anselm's doctrines of truth are examined as background to Grosseteste's doctrine and for the purpose of showing at which points he is closer to St. Augustine and at which points he is closer to St. Anselm. There is an epistemological realism in both the thought of St. Anselm and Grosseteste that we do not find in the thought of St. Augustine. St. Augustine emphasizes more than Grosseteste the truth dwelling within the mind, strict coherence, and the certainty based on necessary and immutable truths. In both St. Anselm's and Grosseteste's doctrines of truth we find an emphasis on the truth of res that we do not find in St. Augustine's doctrine of truth. Although he states that in contingent things there is corruptible truth Grosseteste manifests a keen interest in contingent physical entities and phenomena and their causes. A noteworthy feature of Grosseteste's doctrine of knowledge is the important place given to experimentum in ascertaining whether or not a proposed theory or explanation is true.

It is also maintained that there are some serious deficiencies in Grosseteste's doctrine of truth. These include the eternity-time, immutable-mutable, and necessary-contingent dichotomies. These dichotomies are reflected in his epistemology. It is also pointed out that there is a lack of ample clarification concerning truth as correspondence. Grosseteste's doctrine of truth is also considered to be deficient to the extent that the Biblical conceptions of truth have not been incorporated into his doctrine of truth. Nevertheless, in spite of the deficiencies cited it is maintained that Grosseteste's doctrine of truth still has much to offer us.

The first chapter includes a discussion of some problematical developments in certain modern correspondence and coherence notions of truth. It is believed that some of these problematical developments and impasses have resulted in part because of certain forgotten or rejected emphases and motifs found in Grosseteste's and other mediaeval doctrines of truth discussed. In the thesis an attempt is made to recover or retrieve some of these significant motifs and emphases through the exposition of those doctrines of truth in which they are found.

## CHAPTER IV

### ROBERT GROSSETESTE'S DOCTRINE OF THE KNOWLEDGE OF TRUTH

Having considered Grosseteste's doctrine of truth we are now in a position to examine aspects of his doctrine concerning knowledge of the truth. We have, of course, already dealt with a number of factors that are directly related to and bound up with Grosseteste's doctrine of knowledge and methodology. In introducing his doctrine of truth we took note of the areas of knowledge in which Grosseteste was especially interested. We saw that he pursued a rather wide range of disciplines which included the quadrivium, theology, and physics. We also took note of the fact that Grosseteste made frequent appeal to authoritas and placed considerable emphasis on experimentum. We also referred briefly to his view of and use of dialectic. We briefly considered some of Grosseteste's teaching concerning the ways in which various disciplines are interrelated. What I would especially like to point out, however, is that in setting forth his doctrine of truth we were thereby also setting forth the very ground and foundation on the basis of which cognition



and knowledge are possible. In view of this it could be said that we have already dealt rather extensively with the substructure of Grosseteste's epistemological theory. Facets of this theory that we shall now examine include his doctrine concerning actual cognition, the exact character of knowledge, the validity of knowledge, and the media of knowledge. The extent to which his epistemological theory has been shaped and determined by his doctrine of truth should become apparent as we proceed.

1. The knowledge of the truth as determined by the nature of the truth

Our present aim is to treat cardinal facets of Grosseteste's general epistemology without devoting a great deal of attention to particular branches of knowledge, their interrelationships, and the grounds and modes of knowing peculiar to the respective disciplines. These areas will receive more extensive treatment later on.

This is not to say that Grosseteste describes cognition in a vague and general fashion without reference to that which is known. He is continually focusing his attention upon the objects that are known and the mode of knowledge appropriate to each. One cannot present the epistemology of Grosseteste in its true character unless one also takes ample notice of this facet of his thought. There are factors, however, which are common to several areas and fields of knowledge. These common factors include, for example, divine illumination, the affectus-aspectus principle,

the matter of certainty, and knowledge of the sensible over against the intelligible. These are general in the sense that they are operative in knowing things belonging to different species. They are operative in this general fashion because of the formal similarities which different species may have with respect to each other. This is not to minimize the essential differences between diverse entities and the diverse degrees of certainty attendant upon the knowledge of the same. The mode of knowing the supreme Truth is quite different from the mode of knowing natural phenomena even though the human mind is illumined in both types of knowing. Grosseteste agrees with Aristotle that there are principia cognoscendi that are common to several sciences while at the same time each science has its own principles. Grosseteste, however, stresses more than Aristotle the crucial significance of the nature of things in determining the degree of certainty that can be achieved. Grosseteste is also aware of the limited applicability of his experimental verification procedure. The mode and method of the knowledge of spiritual beings is very different from the knowledge of sensible corporeal beings and of sensible natural phenomena. On the other hand, knowledge of different classes of sensible entities is of one kind insofar as they are known in their universals apart from their accidents which are perceived by the senses. Different knowers may also be aware of the same created entity in diverse ways and the individual knower may be aware of the knowable in different ways. It will become apparent that the character

of our knowledge or awareness of things is dependent on a number of factors which include the nature of things that are known, the various ways in which the knowing subject can be aware of the knowable, and the specific mode of knowing the entity. Varying degrees of certainty, degrees of adequation, varying degrees of active participation of the knowing subject in the process of knowing, and the differing values of different kinds of knowledge do not allow for easy and broad generalizations.

Grosseteste does not ask whether knowledge is possible for he is certain of the actuality of knowledge. He is very much interested in how knowledge is attained and in this sense he asks how knowledge is possible. Neither does Grosseteste question whether verification is possible. He is interested in setting forth a method of experimental verification based on definite metaphysical assumptions. With respect to certainty Grosseteste is interested in setting forth a hierarchy of certainty from the least certain to the most certain. In the natural sciences, notably physics, Grosseteste utilized mathematics in formulating and developing methodological procedures. It is in his commentary on Aristotle's Posterior Analytics that Grosseteste is preoccupied with methodological questions and issues. It is in the field of physics that he makes the greatest effort towards formulating a fully developed and carefully worked out method.

2. The nature of scientia and its relation to fides, opinio, and intellectus

Grosseteste holds to a hierarchy or gradation in the ordo cognoscendi which corresponds to the order in his doctrine of truth or being. The universals and the exemplars rank higher in the order of being than the forma situated in the particular. The forma, in turn, ranks higher than the materia of the particular thing. The immutable ranks much higher than the mutable and this will also prove to be a determinative factor in the order of knowing. It should be noted that to append the word 'scientia' to a particular kind of awareness or acquaintance of an entity or to the apprehension of a particular nature of thing is to evaluate a certain type of cognition and to offer a value judgement concerning this awareness in the light of the order of being. For Grosseteste to assert that acquaintance with a certain stratum in the order of being is truly 'scientia' is for him to evaluate and judge this specific acquaintance and to fix its place in the hierarchy of knowledge. 'Scientia', of course, must have a general nominal sense in the first place. However, Grosseteste deliberately restricts its range of application and the situations that are to be so designated. On the grounds of the status attributed to 'scientia' by such as Aristotle, in contrast to the Sophists, Grosseteste categorizes a certain class of cognitive experiences. When Grosseteste asserts that a certain apprehension is to be called true 'scientia' he is both further defining the word through a specific usage and also attributing a certain status to this apprehension on the basis of an accepted sense of 'scientia'. Grosseteste does grant that 'scientia' may

be defined univocally and with adequate qualification applied to different levels of knowing. The uses of 'scientia' plus appropriate qualification could be called analogous predications. He states: "Sed non latet nos quod scire dicitur multipliciter, communiter, proprie, magis proprie, et maxime proprie."<sup>1</sup> The levels of scientia range from that scientia which is termed "communiter" to that which is termed "maxime proprie." Elsewhere Grosseteste prefers to contrast scientia with such as opinio and intellectus.

(2.1) Grosseteste's understanding of scientia

Scientia is spoken of as the "comprehensio veritatis." This comprehending of truth varies depending on the nature of that whose truth or being is perceived. Such scientia is described with respect to that which is known.

Est enim scientia communiter veritatis comprehensio, et sic sciuntur contingentia erratica. Et dicitur scientia proprio comprehensio veritatis eorum quae semper vel frequentius uno modo se habent, et sic sciuntur aliqua contingentia naturalia quorum est demonstratio communiter dicta. Dicitur autem scientia magis proprie comprehensio veritatis eorum quae semper uno modo se habent, et sciuntur in mathematicis tam principia, quam conclusiones. . . . Manifestum est quod maxime proprie dicitur scire comprehensio eius quod immutabiliter est per comprehensionem eius a quo illud habet esse immutabile, quod hoc est per comprehensionem causae immutabilis in essendo et in causando.<sup>2</sup>

Here we note that 'scientia' is used with appropriate qualification to refer to the comprehension or perception of quite diverse

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<sup>1</sup> Comm. Post. I.2; f. 2.

<sup>2</sup> Ibid.

realities or events. At the bottom of the scale is the erratic contingent event. Accidental happenings and unique historical events are given a very low rating. There are a number of reasons for this low rating. The erratic or historical event is passing and has no enduring substance or essentia. In addition, although a logical truth expressed concerning a contingent event will always have been true, it is no longer true when expressed after the event has occurred. This difficulty is partly caused by lack of clarity regarding the truth of the proposition and its relation to the sentence. Grosseteste prefers the statement that is true in every instant. The erratic contingent event has the highest degree of mutability for it is not necessary that it should be, and if it should occur, it soon is past. Another factor that counts against the erratic contingent event is that it is usually bound up with the corporeal order. There is no essentia that can be abstracted from contingent events in the realm of corporeal activity or from contingent events in the realm of spiritual beings. There is also the difficulty of achieving certainty in the realm of erratic contingent events. It is not altogether certain that what one holds to be true is indeed the truth. Herein is required the testimony of the senses or the testimony of witnesses. Some witnesses are more authoritative than others.

A great deal of what has been asserted regarding erratic contingent happenings is also applicable to natural phenomena which occur perpetually or frequently. Here also there is no

immutable or enduring essentia concerning which statements are true in every moment. In this realm Grosseteste's scientific method plays a most strategic role. Verification through experiment is possible with respect to such occurrences because they are continuous or take place from time to time. In this sphere there can be scientific knowledge which is achieved through demonstration. Demonstrated knowledge involves knowledge of the medium or cause which accounts for the presence of the predicate in the subject. This branch of knowledge is physics and in this area Grosseteste deals in particular with such phenomena as the rainbow, heat, light, lunar eclipses and the echo. It is well to note that the demonstrative scientia achieved in a natural science such as physics is through "demonstratio communiter dicta." Herein we have demonstrative knowledge "communiter dicta" for several reasons. One such reason is expressed as follows: "Similiter in naturalibus est minor certitudo propter mutabilitatem rerum naturalium."<sup>1</sup> Demonstration in the sphere of the natural cause and effect is also considered to be "demonstratio communiter dicta" because of the nature of the per se connexion between the terms. Grosseteste agrees with Aristotle in asserting that in logic, metaphysics, and natural science "sit scientia et demonstratio, sed non maxima dicta."<sup>2</sup> A. C. Crombie comments on Grosseteste's view of the knowledge of changing physical things:

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<sup>1</sup>Comm. Post. I. 11; f. 13.

<sup>2</sup>Ibid.; f. 12.

Nevertheless, there was in the study of physical things, as Grosseteste put it, 'science and demonstration, though not in the strictest sense'<sup>1</sup>. It was possible to arrive at a probable knowledge of the causal necessities or laws, belonging to the form, according to which natural things behaved. Such laws were suspected when certain phenomena were seen to be frequently correlated.<sup>1</sup>

Grosseteste's intention was to set forth the cause or "proper quid" of the observed effect. The real issue turns upon the precise nature of the causal connexion or sequence. Grosseteste, along with Aristotle, recognized that in the "syllogismus faciens scire" there is a causal or antecedent necessity because of the form of the syllogism itself. The conclusion of the demonstrative syllogism is thus necessary in the sense that it is impossible for it to be other than it is in view of the premises given and the syllogistic form. This same conclusion may or may not be necessary simpliciter depending of course on whether the premises themselves are necessary. Regarding this Grosseteste says:

. . . aliud est aliquid esse in seipsum necessarium, et aliud est aliquid de necessitate esse. Si aliud est, contingens autem quod sequitur syllogistice ex aliis contingentibus non est simpliciter necessarium, sed est necessarium esse si illa sunt ex quibus ipsum necessario sequitur.<sup>2</sup>

The premise that is necessary serves as the basis for demonstration. In the necessary premise the attribute or property is essential in that it belongs to the very essence of the subject. To have demonstration in the strictest sense there must be premises

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<sup>1</sup>A. C. Crombie, Robert Grosseteste, p. 61.

<sup>2</sup>Comm. Post. I.6; f. 6.

which are not only true in every instant but are such because the predicate belongs essentially to the subject. Grosseteste cites what he calls the sixth conclusion of Aristotle: "Omnis demonstratio est syllogismus ex necessariis, omnia et sola per inherentia sunt necessaria. ergo omnis demonstratio est syllogismus ex per se inherentibus."<sup>1</sup> To have strict demonstration there must also be a necessary connexion between the major term and the middle term and between the middle term and the minor term. Consequently, although the demonstration utilized in seeking a causal definition of the lunar eclipse is always syllogistically valid, we do not have strict scientific demonstration. The reason for this is that not each of the premises is necessary and perpetual.

Grosseteste states that in mathematics we have "scientia magis proprie." Here the influence of Aristotle is very much in evidence. In his Posterior Analytics Aristotle sets forth geometry as the model science. The geometrical definition is both necessary and commensurate. Of such Grosseteste says that "se habent ad invicem quod a quidditate unius quidditas alterius egreditur, aut ita est quod neutri aliquid superadditur quod sit non causa vel causatum respectu alterius. . . ." <sup>2</sup> In mathematics we have greater certainty and less deception because the terms are "convertibile; quia in his non recipitur accidens medium, sed diffinitiones sunt media."<sup>3</sup> There is also less deception in

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<sup>1</sup>Ibid.    <sup>2</sup>Comm. Post. I.4; f. 5.    <sup>3</sup>Comm. Post. I.11; f. 13.

mathematics "quia eius consideratio versatur in paucioribus et magis certis, et stabilibus, ut in universalibus solum. Aliorum vero consideratio versatur in particularibus et pluribus et magis mutabilibus eius."<sup>1</sup> When working with the convertibile "facilis est resolutio [analysis], in dialecticis autem sumitur accidens plus, et non convertibile."<sup>2</sup> Grosseteste presupposes the human mind in its corrupt state when he states the following: "In solis enim mathematicis est scientia et demonstratio maxime, et principaliter dicta."<sup>3</sup> The human intellect in its most perfect state is able to dispense with demonstration altogether.

'Scientia' is used "maxime proprie" when used in reference to the mental comprehension or perception of immutable esse and its immutable cause. Herein the universal is viewed instantaneously and simultaneously along with the particular and as the cause of the latter. The pure intellect can view the immutable uncreated rationes of created things. Such knowledge is different from and even superior to strict demonstrated knowledge because the separate terms of the syllogism are perceived as one single entity. The singular is observed in terms of its immutable forma or essentia. This appears to be somewhat analogous to perception of the necessary connexions within the syllogism: "Et cognoscitur necessitas syllogismi cum videtur identitas utriusque extremitatis cum medio termino."<sup>4</sup> In a single glance one can observe the necessary internal logical connexions

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<sup>1</sup>Ibid.    <sup>2</sup>Ibid.    <sup>3</sup>Ibid.    <sup>4</sup>Comm. Post. I. 9; f. 10.

within the syllogism without at the same time knowing whether the premises are true or false. However, in the latter situation the knower is still mindful of the diverse terms, whereas in viewing the universal the subject and predicate are perceived as one and the truth is immediately perceived. Furthermore, one cannot immediately see in the premise itself that it is true. Grosseteste will hold that such is the case even with respect to the mathematical equation which is known to be true through illumination.

He also asserts the following about that which is called knowledge "maxime proprie":

hoc igitur simpliciter et maxime proprie scire cognoscere causam incommutabilem rei in se, et incommutabilem in causando, et respectu huius scire vocat Aristoteles alios modos sciendi sophisticos, et secundum accidens, et istud scire est finis specialissimus huius scientiae et acquirit per demonstrationem dictam propriissime.<sup>1</sup>

It is quite certain that Grosseteste has reference here to metaphysical scientia in which one knows not merely the natural cause of an observed effect but also the immanent form, the universal, and possibly even the ratio in the supreme Truth. We note that Grosseteste speaks of the use of demonstration in this science and consequently it would appear that diverse terms are perceived. The goal, however, after which the mind strives is the contemplation of immutable being in its immutable cause. In such intellectual viewing there is no diversity of terms because there are no terms or words at all.

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<sup>1</sup>Comm. Post. I.2; f. 3.

Scientia involves us in comprehension of the truth. This, however, is a very broad and general statement. We observe that the character of a particular science or branch of knowledge is determined by that which is known and the corresponding method whereby one comes to know that which is known. Against the background of Grosseteste's understanding of truth, it is possible to discern why he orders scientia as he does. Scientia focuses in upon the immutable and incorporeal principle and universal which is particularized in mutable and corporeal entities and events. For example, in physics one may inquire into the natural cause or the "propter quid" of an observed effect, but then it is important to formulate a definition concerning the phenomenon. The definition serves as an abstract universal and the single natural phenomenon is related to it as a particular. Scientia is considerably more than knowing that there exists some phenomenon or entity. If this is all that is known, then one only knows a thing through its effects and has only sensible knowledge. As Grosseteste states: "Quae autem est acquisita per proximam causam vocatur scientia propter quid, et haec est scientia maxime et propriissime dicta, et demonstratio qua haec scientia acquiritur est maxime demonstratio."<sup>1</sup>

Grosseteste's theological and ontological doctrines regulate and govern his epistemological theory. His ever present desire to move away from the mutable, the transitory, and the corporeal

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<sup>1</sup>Comm. Post. I.12; f. 14.

towards their opposites is grounded in his doctrine of veritas and esse. Even though it may be necessary to begin with the passing and corruptible event or thing, the ultimate intention is to arrive at knowledge of the immaterial and immutable natures of things which are finally their rationes in the supreme Truth. In view of this it is not surprising that such great stress is placed upon those propositions or statements that are perpetually true. In such statements the subject and the predicate both refer to the same universal or essentia. The nature of scientia will become clearer as it is compared with fides, opinio, and intellectus.

## (2.2) Fides and scientia

In Dictum 129 Grosseteste discusses faith and the articles of faith. What he understands by fides is already evident in his comment on the articles of faith. He says that the articles of faith are like the members of one body and however small they may be they are nevertheless called articles of faith. He says: "Ad hanc itaque similitudinem potest [possunt] dici articulus [articuli] fidei totius corporis fidei ultimae decisiones, quae secundum ultimitatem et supremam intensionem fidei debent credi."<sup>1</sup> Herein the objects of faith are doctrines or teachings that are called articles of faith. The acceptance of these articles is called faith: "Fides namque est cum assensu cogitatio: et sic

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<sup>1</sup>Dictum 129; Brown 281.

definita fides est et scientiae genus: quod enim scio, cum assensu cogito."<sup>1</sup> It will be noted that opinio as expressed "communiter" is thought to be the same as fides as understood above. Fides is not without thought and reflection but it is less than that demonstrated knowledge which is founded upon the middle term. In fides we do not have that knowledge of the identity of subject and predicate in a single substance. In fides we have no direct mental viewing of a universal as the necessary connexion between the subject and predicate of a demonstrated conclusion. The scientia that is fides has its own certainty and its own middle term but it is not that certainty which accompanies the intuited necessary premise and the demonstrated necessary conclusion.

In the following passage Grosseteste sets forth the place and function of auctoritas in the realization of fides:

Proprie autem dicitur fides cogitatio assentiens per medium, quod posset quidem aliquo modo, sed non consuevit fallere, secundum hoc, (sed hoc) quod creditur ab aliquo nondum scitur ab eodem: et sic creduntur tam ea quae non attinent ad salutem nostram, quam ea quae attinent: Cum autem unum de mediis facientibus fidem et non scientiam, sit auctoritas; medium quod maximam fidem debet facere, est auctoritas Sacrae Scripturae.<sup>2</sup>

There are several points included in this quotation deserving of comment but we can focus our attention only upon the chief issues. Fides is not here spoken of as a scientiae genus but as cogitatio which gives its assent or approval in accordance with a medium, which in this case is the authority of the Sacred Scriptures.

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<sup>1</sup>Ibid.

<sup>2</sup>Ibid.

Grosseteste expressly says here that what is only believed by an individual is not yet 'known' by that same individual. Such faith is not without some thought and understanding since the latter are required for faith to exist. We are reminded here of Augustine's emphasis on the understanding and comprehension which fides itself presupposes. The authority of the Scriptures here functions as a kind of middle term on the basis of which the teachings are accepted as true. This fides is considered not to be scientia, intellectus, or visio, not because what is believed is in no way understood but by reason of the fact that the certainty of truth is grounded in the authority of the Scriptures. When the believer begins to achieve an intellectual vision of the truth itself then what was accepted as truth on the basis of authority is seen to be true in itself.

Grosseteste goes on to speak of the fides that leads to the visio:

Quae igitur cadunt sub fide, maxime sunt es, quibus assentitur Sacrae Scripturae autoritate. Magis proprie (igitur) autem dicta est fides eorum quae Sacrae Scripturae auctoritate creduntur. Inter haec autem quae sacrae paginae auctoritate creduntur, maxime credenda sunt, quae credita justificant.<sup>1</sup>

Grosseteste here circumscribes that which is to be believed, namely, that which is taught by the Scriptures and especially those beliefs which justify when believed. One is to proceed from fides to the visio of that which the articles of faith

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<sup>1</sup>Ibid.

teach: "Haec [articles] autem, ut puto, sunt ea ex quibus speramus beatitudinem: haec autem sunt quorum visio in patria est vita aeterna."<sup>1</sup> This visio is comparable to the intellectus of truth itself. The most sublime level of knowing is the seeing into or intellectual perception of the unchanging ratio and veritas. This is true both for the knowledge of the supreme Truth and the knowledge of created truth.

Grosseteste repeats the maxim that faith must precede the direct understanding of truth:

Visio igitur Creatoris et Redemptoris erit vita aeterna et beatitudo vera. Ex Creatore igitur et Redemptore speranda est beatitudo: sed non erit beatificantium visio, nisi eorundem praecesserit fides; Sicut scriptum est, (igitur) nisi credideritis, non intelligetis.<sup>2</sup>

True blessedness and happiness consists in the act of beholding the Creator and the Redeemer but faith must come first. Some of the reasons why this order is necessary will become apparent from the general epistemology of Grosseteste. It is clear that man in his fallen state can only come to knowledge of the supreme Truth by first accepting the true teachings revealed in the Holy Scriptures. The authority of the Scriptures is the medium which makes such faith possible. The authority of the Scriptures accomplishes this by serving as the ground for the validity and certainty of the truth of the articles to be believed.

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<sup>1</sup> Ibid.

<sup>2</sup> Ibid.

Grosseteste states that the way to heavenly beatitude is one of humble love. However, only that which is known can be loved. "Sicut enim beatitudo in patria est gaudium in visione Creatoris et Restauratoris; sic justitia in via est amor humilis Creatoris et Redemptoris. Non amatur autem nisi quod cognoscitur scientia vel fide."<sup>1</sup> Both in scientia and fides we know but with different degrees of certainty, clarity, and immediacy. Scientia is not the end in itself but ought to lead to amor and beatitudo. Grosseteste speaks of the necessity of faith and its foremost content:

Cum igitur nondum sit in nobis scientia et visio Creatoris et Reparatoris, necessaria est nobis ad justificationem Creatoris et Recreatoris fides firmissima. Maxime igitur proprie fides dicitur quae de Creatore et Recreatore fides habenda est: quae fides continetur in symbolo, ubi exprimitur Unus et Trinus Creator, Jesus Christus verus Filius Dei in quantum Recreator: hoc est, exprimitur ipse cum his secundum quae est lapsus nostri integra reparatio.<sup>2</sup>

Such fides and scientia are certainly different from that fides and scientia operative in the cognition of natural phenomena and creaturely entities. It is quite obvious that the articles or objects of belief and knowledge are vastly different in this theological setting from what they are in physics and geometry. Furthermore, over and above these differences one can observe different grounds of faith in the different branches of knowledge. In physics the ground may be a sense experience, a primary premise, or a particular contingent event.

Grosseteste holds that the object of faith may also be an

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<sup>1</sup>Ibid.

<sup>2</sup>Ibid.

historical event such as the birth of Christ. Whereas Abraham believed that the birth of Christ would occur in the future we believe that it has occurred. However, for both there is one "substantialis complexio: sc. nativitas temporalis secundum hominem cum persona filii Dei aeterna, quae tempore Abrahae fuit futura, nunc autem est praeterita . . . ." <sup>1</sup> As we have already noted and as we shall see, the question arises as to the sense in which such an event can be said to be known since it is not perpetual and is not a particular instance of a universal.

Fides, according to Grosseteste, is certainly not the highest and most appropriate mode of awareness and apprehension of the immutable supreme Truth but it is a preliminary step that is required because of the condition of man's soul and mind. The rational soul begins its pilgrimage by believing and assenting to the teachings of the Holy Scripture on the basis of the authority of the Scriptures. The significant element to be noticed here is that the less appropriate or inferior mode of cognition is not the fault of the immutable supreme Truth. The deficiency lies with the knowing subject and not with the known subject. This deficiency will be examined later.

Grosseteste does hold, however, that fides is the appropriate response to the Scriptures and what they teach. He also would speak of fides as the initial appropriate response to the sensible contingent particular. One must believe that which he senses and

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<sup>1</sup>Ibid.

in order for one to arrive at knowledge of the contingent it must be sensed. But how does one then come to know past sensible contingents? This matter is discussed in Dictum 113 entitled De Prophetis veris et falsis:

Licet autem contingentia cum fuerint praesentia et transeunda per praesens praeterita, fiunt de contingentibus non contingentia, sed veritatem determinatam habentia, non tamen scibilia sunt humana scientia nisi sensitiva. Unde qui non sentiunt illa cum fuerint praesentia, credere possunt his qui ea sentiunt sive narrantibus sive scribentibus: scire autem ea non possunt nisi aliquo modorum quo praesciri potuerunt futura.<sup>1</sup>

It is possible to believe in the past sensible contingent through sensing it in the oral or written witness to that contingent entity or event. It is declared that scientia of both past and future contingent events is possible. One could question whether the contingent is really saved when scientia is realized. For it is stated: "Item scientia est certa veritatis apprehensio, et haec non est veritatis permutabilis."<sup>2</sup> The scientia of contingent events is not achieved through demonstration: "Scimus autem quod contingentium non est scientia per demonstrationem; quia non habent esse stabile in ordine causali creato. . . ."<sup>3</sup> This does not mean that no knowledge or understanding of the contingent that is sensed and assented to can be attained. We shall see that for Grosseteste there is a way in which the contingent may even become the object of a visio. However, when such a visio is achieved it is not the contingent qua contingent

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<sup>1</sup>Dictum 113; Brown 279.

<sup>2</sup>Dictum 113; Brown 276.

<sup>3</sup>Ibid.

that is viewed.

(2.3) Opinio and scientia

Grosseteste's conception of 'opinio' is set forth in his comments on Aristotle's discussion of opinion and its relation to knowledge. Aristotle teaches in his Posterior Analytics [I.33] that knowledge is of those truths which are necessarily true and which at the same time are also known to be such. In having knowledge one apprehends that an attribute inheres in a subject as part of the essential nature of the substance. Opinion, on the other hand, is concerned with that which may be true or may be false. The predicate is not understood to inhere necessarily in the subject. Aristotle states that one opines a necessary truth when he fails to recognize the necessary connexion between the subject and predicate in terms of which it is impossible for the truth to be false. It is possible for the same necessary truth to be held as necessary by one individual and to be held as opinion by another. Aristotle also states that it is impossible for the same person to know and opine simultaneously the same thing.

Grosseteste elaborates on this discussion of opinion and echoes some of Aristotle's views. The former speaks of opinion in at least three ways. He says that 'opinio' is used "communiter" when it signifies "cognitio cum assensu, et sic est idem quod fides. Et secundum hoc opinio est genus scientiae et opinio

proprie et magis proprie, et quicquid scitur opinatur hoc modo."<sup>1</sup>  
 We note here some overlapping with the definition of faith cited above. Opinion is considered to be a "genus scientiae" in this usage. This is not, of course, what is most properly called scientia. This "cognitio cum assensu" is less than the direct apprehension of the essentia of the thing, the universal, or the eternal ratio. To have opinion in this sense is to have cognitio which lacks the certainty of direct apprehension of the truth itself. This opinion is the acceptance of reports or teachings as truths on a basis other than the immediate perception of that which is signified. Even a necessary truth is held as opinion if it is merely the object of assent and the essential or necessary connexion is not perceived. Although Grosseteste does say that this opinion is the same as faith, it must be remembered that there are different kinds of faith. There is the fides maxima which is grounded on the authority of the Sacred Scriptures and which is to be distinguished from faith as mere belief or surmise based on scanty evidence and questionable authority. The latter is not that which is "magis proprie" called faith. In common opinio and fides the threat of the contrary or contradictory being true looms larger.

This threat is singled out by Grosseteste as he describes what is to be called opinion "proprie." Here he speaks of opinion as the "acceptio" of one part of a contradiction with

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<sup>1</sup>Comm. Post. I.19; f. 27.

"formidine alterius." To hold such an opinion is not to have scientia. The question is raised whether the same truth may not be both "scibile" and "opinabile, quia nihil prohibet quia necessarium scibile credatur cum suspitione, tamen quod contradictio eius possit esse vera, sed secundum hoc non est possibile quod aliquis sciat, et opinetur simul unum et idem, sed unum et idem est scibile et opinabile simul a diversis."<sup>1</sup> The point made is that the necessary truth is either known to be such or it is supposed that it is possible for its contradictory to be true. In the latter case the necessary truth is held as a contingent truth. It is not explicitly stated whether the necessary truth which is assented to as such on the basis of a witness or report is opinion "communiter" or some other type of apprehension.

Grosseteste also speaks of that which is "magis proprie" called opinion. This opinion is the "acceptio veri contingentis in quantum huiusmodi. Et secundum hoc non est scibile idem et opinabile."<sup>2</sup> Here we have the acceptance of the contingent truth wherein there is no essential or per se connexion between subject and predicate. It is possible for such a premise or predication to be false. It is clear that the contingent truth that is simply accepted as such is an opinabile. On the other hand, we find that Grosseteste does speak of the scientia of contingent events. He also grants that it is possible to have

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<sup>1</sup>Ibid.

<sup>2</sup>Ibid.

"scientia quia" of a natural phenomenon. This is to know through the sensing of sensible effects that a certain event or phenomenon exists or has occurred. It is from the point of view of the necessary truth that the acceptance of the contingent truth is called opinion and not knowledge. The "acceptio" itself of the contingent truth would also place the latter in the category of the opinabile rather than the scibile. It is clear that neither the existence nor the definition of the contingent thing or event can be demonstrated.

Grosseteste also speaks of opinio in another manner. This understanding of opinion is determined both by the nature of that which is known and the corresponding mode of perception:

Opinio vero propria dicta est visus animae, qui cum cadit super res intelligibiles et scibiles non capit eas in puritate sua, sed commiscet cum eis phantasmata rerum materialium transmutabilium, ex quorum phantasmatum concreione suspicatur possibilitas permutationis in his quae in veritate sua ut impermutabilia. . . .<sup>1</sup>

Here is indicated the actual status of the changing concrete particular. It is said that this viewing is somewhat analogous to that corporeal vision which passes through "pupillam infectam." Opinio centers "circa transmutabilia" and not upon necessary truth. Opinion is the "acceptio propositionis immediatae." It does not perceive the necessary and therefore lacks certainty. Grosseteste is not now speaking of the contingent truth at all but of the necessary truth which may be perceived in such a way

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<sup>1</sup>Ibid.

that one has only opinion of the same. He reflects Aristotle's sentiment as he states:

Opinion vera est eiusdem rei [as known in scientia] secundum quod ipsa videtur sub conditionibus et phantasmatis materialibus, sicut falsa et vera opinio est eiusdem rei quodammodo, sed non est eiusdem simpliciter, sic etiam est scientia et opinio non eiusdem simpliciter.<sup>1</sup>

Grosseteste goes on to say that one has opinio quia if the opinion is not held on the basis of immediate premises. There is opinio propter quid where opinion is arrived at through immediate premises which function as the cause of the mediated conclusion. In either instance the per se connexion between subject and predicate is not perceived. Irrespective of how one comes to hold the necessary as contingent truth, one is left finally with opinio rather than scientia. Grosseteste does not intend thereby to negate the possibility of scientia with respect to contingent entities and events. We noted earlier that the opposite is the case. That such a negation is not intended is amply evident from the fact that Grosseteste allows for a science of natural phenomena such as physics. On the other hand, one must remember that the sensible contingent particular or concrete composite as such is not the object of scientia as understood most appropriately. However, because of his theological framework and his doctrine of truth Grosseteste does give the particular and the contingent entity or event a greater place than does Aristotle. Grosseteste's doctrines of form

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<sup>1</sup>Ibid.

and individuation also demand that greater attention be paid to the singular. Nevertheless, that perception which beholds the nature of the entity along with its differentiating mutable material accidents is only opinio. In that which is most appropriately called scientia there is not even room for that intelligible differentiation of individuals wherein one speaks of the varying degrees of rightness perceptible to the mind alone. In such scientia one beholds the forma of this particular member of the species apart from the mutable differentiating factors mentioned. The penultimate goal sought after in the knowledge of created entities is the universal from which demonstration proceeds. The ultimate goal is the viewing of the eternal ratio itself. Beyond scientia is the intellectus of the universal and the ratio which are both principles of the being of created things and principles of demonstration. This brings us to a comparison of scientia and intellectus.

#### (2.4) Intellectus, visio, and scientia

Certain statements of Grosseteste would seem to indicate that scientia and intellectus are one and the same; such as the following: "Intellectus, enim, et scientia apprehendunt res in puritate essentiae suae, sicut in seipsis sunt."<sup>1</sup> We noted earlier that with proper qualification 'scientia' could be used to refer to rather diverse types of cognition. Although 'scientia'

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<sup>1</sup>Ibid.

is used in very close conjunction with 'intellectus' to indicate the apprehension of the essentia of the thing, the former gives way to the latter when direct intellectual viewing of immutable truth is attained. One is said to have scientia or scientific knowledge when he knows the necessary demonstrated conclusion. The apprehension of the axioms and principles or primary premises of demonstrated knowledge is to be called intellectus. Whereas the human ratio is looked upon as the agent or faculty that is especially operative in scientia, it is the intelligentia, the highest faculty of the human soul, which engages in intellectus. Grosseteste says of intellectus: "Cognitio principiorum primorum quae est intellectus est melior dispositio quam sit scientia. Principia autem non simpliciter prima cognoscuntur non intellectu, sed scientia, quae est prior dispositio quam intellectus."<sup>1</sup> Aristotle says that we come to know such primary premises or principles through rational intuition. However, Grosseteste's intellectus cannot simply be identified with this rational intuition for the former includes the intellectual perception of universals transcending the immanent universal situated within the species.

We do find that Grosseteste, as does Aristotle, speaks of a scientia of premises which effect the conclusion. As Grosseteste asserts: "Scientia autem praemissarum est efficiens, sicut origo scientiae conclusionis, scientia enim praemissarum in anima

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<sup>1</sup>Comm. Post. I.2; f. 3.

videtur generare scientiam conclusionis."<sup>1</sup> It has already been observed that Grosseteste holds to a hierarchy of principles of being and knowing. As one advances from the inferior to the superior one passes from scientia to intellectus and visio. It must not be thought that Grosseteste adheres in every instance to a rigid fixed pattern of usage. In contrast with opinio both scientia and intellectus call for apprehension of the essence of the thing. Intellectus is then said to be neither opinio nor scientia because it concerns the indemonstrable principles of demonstration. "At vero neque intellectus est scientia aut opinio, quia intellectus principium scientiae quod non convenit scientiae aut opinioni."<sup>2</sup> The term that Grosseteste uses depends to a considerable extent on the context in which a comparison or contrast is being made. In dealing with demonstration and the syllogism employed in demonstration it is said that there is scientia of the demonstrated conclusion and intellectus of the indemonstrable basic premises. Although both involve apprehension of things in the purity of their essentia Grosseteste does make the following differentiation: "Voco autem hic intellectum virtutem animae apprehensivam rerum apprehensibilium receptarum absque medio. Scientiam vero apprehensivam rerum apprehensibilium receptarum per medium."<sup>3</sup> In intellectus the terms of demonstration are seen in their identitas in the universal wherein the

<sup>1</sup>Ibid. <sup>2</sup>Comm. Post. I.19; f. 27.

<sup>3</sup>Comm. Post. II.6; f. 43.

necessary essential connexions are visible to the mind. Taking a cue from Aristotle Grosseteste asserts the following:

Certior autem est intellectus quam scientia et principia notiora quam conclusiones. Igitur manifestum est quod intellectus erit principiorum. Scientia autem non erit principiorum, eo quod omnis scientia est cum medio super quod decursit ratio in acquisitione scientiae. Principia autem non habentur cum medio.<sup>1</sup>

He goes on to say that such principles are not demonstrated and that the first principle of scientia is not scientia. Intellectus is the principium of knowledge and "non est autem certior habitus, quam scientia nisi intellectus."<sup>2</sup> Intellectus does not effect the principles of knowledge. It utilizes the "principia essendi" as it orders them as "principia cognoscendi" from which the conclusion is deduced. Grosseteste stresses the fact that these principia are principia essendi apart from our ordering of them as principia cognoscendi.

Intellectus is considered analogous to the physical eye's viewing of corporeal objects illuminated by the sun. Intellectus is mental vision or "visus interior" which "proximo et per se recipit lumen spirituale esse per se, et primum visibile."<sup>3</sup> Visio becomes actual through illumination by the spiritual light. Such illumination makes possible an almost direct perception of the universal or essentia of the thing. It will be noted that this does not obviate altogether the need for sense perception and the

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<sup>1</sup> Ibid.

<sup>2</sup> Ibid.

<sup>3</sup> Comm. Post. I.19; f. 27.

attendant elicitation of the universal. Reasons necessitating the latter will be noted. The mental sight is directed towards the luminous intelligible universals which are the principles of being and knowing existing in the different strata of being. Their luminosity is caused by the spiritual light descending from above. This light will be examined more fully in the section dealing with divine illumination.

That truth which is viewed ranges all the way from the rectitudo and forma of a particular substance to the exemplary ratio of the thing. It is the intelligible truth that is observable by the mind. This does not mean that every intellect is thereby in a position to view truth on its higher levels. Grosseteste says that the "intellectus autem debilis quod non possit ascendere ad cognitionem horum verorum generum et specierum cognoscit res in accidentibus solis consequentibus essentias veras rerum . . . ." <sup>1</sup> The particular can be known and viewed in its formal cause. The intellectus that is not in a position to contemplate the created incorruptible light and the uncreated light itself can contemplate the formal causal reasons of things in the celestial bodies. "Sunt hae rationes principia cognoscendi et sunt incorruptibiles." <sup>2</sup>

The human intellectus can also know particular substances through irradiation from the created light which is intelligence:

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<sup>1</sup> Comm. Post. I.7; f. 8.

<sup>2</sup> Ibid.

Iterum in luce creata quae est intelligentia est cognitio, et descriptio rerum creaturum sequentium ipsam, et intellectus humanus qui non est ad purum defecatus ita ut possit lucem primam immediate intueri, multotiens recipit irradiationem a luce creata quae est intelligentia, et in ipsis descriptionibus quae sunt intelligentia cognoscit res posteriores, quarum formae exemplares sunt ille descriptiones.<sup>1</sup>

Grosseteste states that "hae igitur ideae creatae sunt principia cognoscendi apud intellectum ab eis irradiatum, et apud tale intellectum sunt genera et species, et manifestum est quod haec universalis sunt incorruptibilia."<sup>2</sup>

The pure intellectus is able to contemplate that which lies beyond and above the created light or intelligentia:

. . . quia cum intellectus purus potest in his defigere intuitum in istis verissime, et manifestissime cognoscit res creatas, et non solum res creatas, sed ipsam lucem primam in qua cognoscit caetera, et planum est quod ista universalis sunt omnino incorruptibilia.<sup>3</sup>

These universals are the uncreated rationes of things and these reasons exist eternally in the first cause and first light. Even that intellect which is not able to contemplate the supreme light is illuminated by this light nevertheless. Only that mind which is illumined can make true judgements and every mind makes some true judgements. Intelligible and knowable objects also are perpetually illuminated even though the mind may not be in a position to perceive them as such.

In Dictum 113 cited above Grosseteste discusses the nature of prophetic knowledge. What is the precise character of this "certa praescientia" concerning future contingents? It is described as follows:

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<sup>1</sup>Ibid.    <sup>2</sup>Ibid.    <sup>3</sup>Ibid.

. . . certa autem contingentium cognitio est veritatis eorum visio: veritas autem est id quod est: igitur veritatis eorum visio, est essentiae eorum visio, Esse autem immobile nusquam habent nisi in mente divina, aut in mente vidente hoc in mente divina. Igitur eorum certa praecognitio est visio essentiae eorum in mente divina, vel in mente eadem ibi vidente.<sup>1</sup>

In this series of statements the visio of contingent things or events is affirmed. However, the visio is of the immutable essences of the contingents. The question must be asked whether in such a visio one truly has knowledge of the contingent. This visio is of immutable being whereas the contingent is mutable even though its essentia does not change. Grosseteste himself says that "permutabilium autem contingentium nusquam est impermutabilis veritas, nisi in mente divina, aut mente ibidem illa vidente."<sup>2</sup> The prophet is said to know future contingent events which in themselves are mutable and not scibilis simply as contingents. The prophet can attain such knowledge because he rises up to a certain and sure vision of the immutable truth of contingent things. In intellectual viewing one must be alienated from the senses. Grosseteste says of those engaged in intellectual vision that they "semper necessario videntur alienari cum rapiuntur in visionem intellectualem . . . ."<sup>3</sup> This immediate direct perception of truth cannot include perception of the sensible. Sense perception is most inferior to intellectual vision. It is only because of the condition of the rational soul that the aid of the senses is required. Grosseteste also speaks

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<sup>1</sup>Dictum 113; Brown 276.

<sup>2</sup>Ibid.

<sup>3</sup>Dictum 113; Brown 277.

of those beings who have knowledge without the help of the senses.

Grosseteste also speaks of mental or intellectual sight as the "aspectus mentis." A recurrent theme in his thought is the aspectus-affectus motif. Aspectus is practically an equivalent of such as visio and we shall examine its relation to affectus which serves as a prerequisite for knowledge of the truth. This aspectus is a mental or intellectual visus. We shall consider this motif more fully when dealing with the prerequisites of knowledge. Grosseteste concurs with Augustine in holding that the will and the affections of man are not to be divorced from his intellectual activity. Mental visio and aspectus are closely bound up with the appetites and desires of the sensitive soul and with the will. This mutual interaction becomes increasingly determinative and crucial as one moves up the hierarchy of knowledge from sensus to intellectus. The mentis aspectus is the contemplation of the truth itself. It is the mode of cognition in which the mind dwells upon such truth as simple eternity and the triune God who dwells in this simple eternity. This is not to affirm that the aspectus mentis is always and necessarily in apposition wherein it can gaze upon incorporeal truth and the supreme Truth itself. Those intelligible entities illumined by the spiritual light ought to be visible to the sight of the mind. They may not be observed by reason of the infirmity of our mental sight but this in no way diminishes their truth or intelligibility. Our mental sight is lacking "dum gravamur mole corporis corrupti,

et aspectu rerum corporalium sunt res obvolutae phantasmatibus magis visibiles. . . ."1 If the sight of the mind is healthy and sound, then this aspectus can focus upon entities closer to the spiritual light and upon the divine things which are most certain for "intellectui tali qualis debet esse secundum statum suum optimum . . . ."2 If the intellectus and aspectus mentis are not corrupted by affection and love for mutable corporeal things they function as the highest mode of cognition. The human intelligence that is not weighed down by the corrupt body and whose eye is pure is able to attain complete scientia without the help of the senses. This is the immediate and direct intellectual vision of truth which is the culmination of human cognition. This is the visio or intellectus that faith seeks.

The intelligible-sensible dichotomy demands that the sensible finally be abandoned as one ascends to the intelligible. The singular and the mutable also are relinquished in favor of the universal immutable eternal ratio. It is not difficult to see why the historical event and the erratic contingent occurrence are relegated to an inferior position in Grosseteste's teaching. The knowing subject is expected to transcend the singular, the mutable, and the contingent in his pursuit of knowledge of the truth. Even that which occurs in time is abstracted from the time continuum as the timeless universal or definition is elicited and abstracted from the temporal order. The factors of process

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<sup>1</sup>Comm. Post. I.17; f. 24.

<sup>2</sup>Ibid.

and historical development are practically eclipsed. If not eclipsed, they are certainly relegated to a most subordinate position. Truth finally has to be immutable. Perfection and absolute certainty require immutable truth.

3. The principles and the means whereby knowledge is attained

Grosseteste's teaching regarding the principles or foundations of knowledge has already been set forth at some length. The possibility of knowledge is grounded in the whole structure of truth or being. The realization of knowledge is assured by virtue of the fact that the human knowing subject stands in the presence of the divine Truth and knowable intelligible structures of truth. Truth is perceptible even though the human subject may fail to perceive it because of self-limitations. Grosseteste teaches that in coming to know the truth man is radically dependent on a number of factors. Perpetual divine illumination is required and this places the knowing subject in a very dependent position. It has been noted above that both created being and creaturely knowledge *are* perpetually contingent upon divine willing, speaking, and illumination. The being itself of all knowledge is radically dependent upon the divine Word. Knowledge as knowledge and statement as statement exist only by virtue of the divine willing and speaking.

Grosseteste takes the above factors for granted in his discussion and delineation of the manner in which knowledge is realized. He never doubts either the possibility or the actuality

of knowledge. On the basis of the actuality of knowledge he engages in reflective thinking on the path taken in achieving, or better, in receiving knowledge. Grosseteste seeks to trace out the way in which he has come to know what he knows. His epistemological doctrines certainly do not have the character of a conjectured prospectus or hypothesis. The understanding of divine illumination presupposes this same illumination throughout. Such enlightenment from the light of the supreme Truth is the key element in the acquisition of knowledge, whatever the subject that may be known.

### (3.1) Illumination from the light of the supreme Truth

Both corporeal and spiritual light play a most significant role in the thought of Grosseteste. In De luce seu de inchoatione formarum Grosseteste speaks of that lux which is the first corporeal form and of a more noble and excellent essence than all succeeding corporeal forms. It has greater similarity to the forms existing apart from matter than all other bodies. In fact, Grosseteste prefers to speak of this lux and its reflected lumen as a spiritual body or a bodily spirit: "Et sic procedit a corpore primo lumen, quod est corpus spirituale, sive mavis dicere spiritus corporalis."<sup>1</sup> The extension of such light is responsible for corporeal extension and space. The light in the outermost sphere is the most rarified. This form of corporeity is

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<sup>1</sup>De Luce; BW 55.

both a principle of unification and of activity in the universe. Grosseteste also speaks of another kind of light by means of which the angels move their assumed bodies even while the angels themselves have no local position or place. This light is like unto that light in man whereby the anima moves the larger members of the body through the muscles and nerves. The anima moves the gross bodies through this "spiritus corporeus sive lux, quo medio moto movet consequenter corpora grossiora."<sup>1</sup> Having this intermediary the incorporeal soul does not have to come into direct contact with the less noble body. "Lux igitur est per quam anima in sensibus agit et quae instrumentaliter in eisdem agit."<sup>2</sup> The rational soul uses the body as an instrument while being independent of the body. Grosseteste is also very much interested in corporeal light and its function in producing color. He uses both light and the color that is produced to illustrate by analogy how divine grace and free will are related to each other.

It is the spiritual light that shines down from above upon the intelligible object and the eye of the mind which makes possible the viewing of truth. He follows Augustine in stating: "Hae auctoritates evidenter astruunt omne, quod cognoscitur verum, in luce summae veritatis verum contueri."<sup>3</sup> This illumination persists even though the eye of the mind may be weak or

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<sup>1</sup>De Intelligentiis; BW 116.

<sup>2</sup>Hex. f. 147<sup>r</sup>a; Sharp, op. cit., p. 28. <sup>3</sup>De Ver.; BW 134.

infirm. Even though such an eye cannot contemplate the uncreated reasons of things it can nevertheless perceive the truth of created things because of this illumination. Such defective vision is due to moral impurity. It will be noted that abstraction of the universal under divine illumination is available as a way of arriving at knowledge of the experimental universal. However, such abstraction does not appear to be necessary for the perception of the truth of created entities. To elicit the universal is to make explicit for the mind what was already implicit in divine illumination. By virtue of this illumination every human being knows some truth and can make certain true judgements even though his mind may not be able to rise above the composite particular. Of such an intellect it is said: "Intellectus autem debilis quod non possit ascendere ad cognitionem horum verorum generum et specierum cognoscit res in accidentibus solis consequentibus essentias veras rerum et apud illum sunt accidentia, consequentia, genera, et species. . . ."<sup>1</sup>

In the final analysis Grosseteste attaches greater significance to the act of observing the degree of conformity of the singular to the divine Word than attaining knowledge of the nature of the species in general. The latter, however, is recognized as a necessary step in procuring demonstrated scientia in physics in particular.

Illumination is a prerequisite in all knowing even though

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<sup>1</sup>Comm. Post. I.7; f. 8.

the knower is not conscious of such. Grosseteste asks: "Potest autem quaeri, cum idem sit veritas et esse, quia veritas est ut dicit Augustinus 'id, quod est', an sicut non videtur aliqua veritas, nisi in luce supremae veritatis, sic non videatur aliquid esse, nisi in ente supremo?"<sup>1</sup> In setting forth the doctrine of illumination Grosseteste draws an analogy between the light of the sun shed upon colored objects and this light of the supreme Truth shed upon intelligible entities: "Nec potest aliqua res in sua tantum creata veritate conspici vera, sicut corpus non potest conspici coloratum in suo colore tantum, nisi superfuso extrinseco lumine."<sup>2</sup> He speaks about the weak eyes of the body which are not able to look at the sun itself but which can gaze upon those colored bodies upon which the sun shines. So it is with the weak eyes of the mind:

. . . sic infirmi oculi mentis ipsas res veras non conspiciunt nisi in lumine summae veritatis; ipsam autem veritatem summam in se non possunt conspiciere, sed solum in coniunctione et superfusione quadam ipsis rebus veris.<sup>3</sup>

Through such illumination the object itself shows forth its truth and its being: "Sed per hanc lucem etiam veritas rei ostendit id, quod est, sicut color ostendit corpora per lucem solis."<sup>4</sup>

The light of the supreme Truth is not related to created truths as the sun to the other heavenly luminaries but as the sun stands related to colored objects. The light of the supreme Truth

<sup>1</sup>De Ver.; BW 141.

<sup>2</sup>De Ver.; BW 137.

<sup>3</sup>De Ver.; BW 138.

<sup>4</sup>De Ver.; BW 137-138.

does not obscure created truth but rather illumines such truth. Lux is not lacking in that it "per colorem ostendit corpus, cum ipse color non sit lux lucens adiuncta luci superfusae; sed haec est lucis potentia, quod lux non colorem praeter se lucentem offuscat, sed non praeter se lucentem illustrat."<sup>1</sup> Not only is the healthy eye of the mind better able to receive this spiritual light but certain objects are more visible to healthy sight because of their own luminous character. Grosseteste states: "Res itaque huius lucis magis receptibiles ab acie mentis, quae similiter est irradiatio spiritualis perfectius penetrantur, et haec penetratio perfectior certitudo maior."<sup>2</sup> The luminosity of a knowable is determined by its ontological position and degree of proximity to the supreme Truth. It is clear that its luminosity or intelligibility is not dependent upon the condition of the mental sight of the percipient. In speaking of degrees of certainty Grosseteste says that "res divinae sunt magis visibiles ab aspectu mentis sano non obnubilato phantasmatis. . . ."<sup>3</sup> Divine things are intrinsically more visible even though the infirm eye of the mind is not able to perceive them. He further states that "universalis demonstratio facit scire quod minus admixtum est phantasmatis et magis propinquans luci spirituali per quam sit visio certa mentalis."<sup>4</sup> It is therefore said that the created thing is known better in

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<sup>1</sup>De Ver.; BW 137.      <sup>2</sup>Comm. Post. I.17; f. 22.

<sup>3</sup>Comm. Post. I.17; f. 24.      <sup>4</sup>Comm. Post. I.1; f. 22.

its exemplar: "Sed cum duplex sit rei cognitio, una in se, altera in exemplari vel similitudine sua, cum similitudo vel exemplar lucidioris est essentiae, quam ipsa res, cuius est similitudo, nobilior et clarior et apertior est rei in sua similitudine vel exemplari cognitio."<sup>1</sup> The exemplar is more lucid because of its proximity to the divine light. The opposite is true when the res itself is of more lucid essence:

Cum autem e contrario lucidioris essentiae est res, quam sua similitudo vel exemplar, clarior et apertior oculo mentis sano est rei in se ipsa cognitio, quam in sua similitudine vel exemplari. Ac per hoc, cum divina essentia sit lux lucidissima, omnis cognitio eius per similitudines, quam per se ipsam obscurior, in rationibus vero aeternis creaturarum in mente divina lucidissimis, quae sunt creaturarum exemplar lucidissimum, omnis creaturae cognitio certior et purior et manifestior est, quam in se ipsa.<sup>2</sup>

Grosseteste states that the "oculus mentis sanus videns primam et supremam lucem in se in ea etiam omnia cetera videret clarius, quam contuens eadem in seipsis."<sup>3</sup> The weak or feeble eye of the mind, which is not able to gaze upon the first light, can receive irradiation from the created light which is intelligentia. The intellectus that cannot contemplate this created light can contemplate the powers and lights of the celestial bodies wherein are causal powers of terrestrial species. The form of the thing itself may be known just as light is seen in itself. Whatever the degree or level of light that is viewed it is the light of the supreme Truth that is finally responsible for illumination and subsequent knowledge. All knowledge of the

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<sup>1</sup>De Ver.; BW 142.    <sup>2</sup>Ibid.    <sup>3</sup>Ibid.

truth and every true judgement is ultimately dependent upon illumination from the light of the supreme Truth and the rationes situated therein. "Omnis igitur creata veritas intantum patet, inquantum conspicienti praesto est lux suae rationis aeternae, sicut testatur Augustinus."<sup>1</sup> Such is the case irrespective of the percipient's actual awareness and acknowledgement of the source of this light. Grosseteste states that even the infirm eyes of the mind observe the supreme Truth indirectly "sed solum in coniunctione et superfusione quadam ipsis rebus veris."<sup>2</sup> He then states: "Hoc modo puto, quod etiam immundi multi summam veritatem vident et multi eorum nec percipiunt se videre eam aliquo modo. . . ."<sup>3</sup> Grosseteste likens this to the viewer who looks at colored bodies in the light of the sun but never directs his gaze toward the sun. Such an observer may never know that it is the sun which illuminates the visible body and may suppose that he sees only the colored body. He is ignorant of the fact that he also beholds indirectly the light of the sun. Grosseteste states that the intelligence, the highest part of the human soul, could have complete knowledge from the irradiation provided by the superior light and without the help of the senses if the intelligence were not weighed down by the mass of the body.

Divine illumination is also operative in the abstraction of the universal by the "virtus intellectiva." As Lynch states:

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<sup>1</sup>De Ver.; BW 137.

<sup>2</sup>De Ver.; BW 138.

<sup>3</sup>Ibid.

"Whenever knowing and knowledge are discussed by Grosseteste, recourse is always had to illumination."<sup>1</sup> Lynch also says:

Therefore in considering the ideas as illuminative and creative, let us say that Grosseteste is taking his place in a long tradition that returns to St. Augustine. There is no question of introducing an Aristotelian active intellect, for there is no Aristotelian abstraction. There is only Augustinian illumination along with a very interesting attempt to extend the doctrine of light to the order of being.<sup>2</sup>

It is an over simplification to say that "there is only Augustinian illumination" inasmuch as Grosseteste places considerably more emphasis on the external res than does Augustine. Furthermore, Augustine stresses more than Grosseteste the interior life of the rational and intellectual soul and the soul's reflection upon itself. At this point the impact of Anselm on Grosseteste is also noticeable. This is evident in the prominent position given to the created res that is known and the possibility of direct perception of its truth. Augustine directs his attention more to the illuminated intellectual soul than to the illuminated res. The goal of knowledge as contemplation of the supreme Truth is of course held in common by Augustine and Grosseteste. However, the mode or method whereby such is attained is not altogether the same for both. Divergence in the mode or method of acquiring such knowledge must not be overlooked insofar as the mode determines in part the knowledge acquired.

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<sup>1</sup>L. E. Lynch, "The Doctrine of Divine Ideas and Illumination in Robert Grosseteste, Bishop of Lincoln," Mediaeval Studies, Vol. III (1941), p. 172.

<sup>2</sup>Ibid., p. 173.

## (3.2) Moral or spiritual prerequisites for knowledge of the truth

Grosseteste shares with Augustine the view that the moral and spiritual condition of the soul affects the cognitive capability of the knowing subject. This raises the whole question as to how the intellect and the will are related to one another and which has the precedence over the other. D. E. Sharp has this to say regarding the problem:

With the problem of the precedence or dependence of the will on the intellect Grosseteste was not consciously concerned; however, his Franciscan successors could use such views as that of the purity of will being necessary for the right development of the potential existence of form in the mind and that of the power of the will to incline to either of two known opposites in support of their doctrine of the primacy of the will.<sup>1</sup>

Sharp goes on to say that Grosseteste does not tell us how the reason and will are to be distinguished in the soul or how they exist together with the sensitive and vegetative faculties. I believe that Grosseteste is more explicit on the ordering of will and intellect than Sharp suggests. The precedence of one over the other depends on the factual context in which these faculties happen to be operating and the nature of that which is known and willed.

(3.2.1) The relation of voluntas to ratio and intellectus

In discussing the freedom of the will to will this deed or that deed Grosseteste speaks of the ratio which previously apprehends and judges what is true and false, good and evil, and

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<sup>1</sup>Sharp, op. cit., p. 36.

then proposes to the will what it has discerned. The ratio does not introduce necessity into the voluntas "sed relinquitur voluntati liberum sententiam iudicii rationis sequi aut abnuere."<sup>1</sup> The ratio informs the voluntas but the latter is free and is not forced to follow the dictates of the ratio. He goes on to say that the "voluntas enim naturaliter se debet sponte subdere iudicio rationis, ut eius pareat iudicio . . . ." <sup>2</sup> In this context it could be said that a certain chronological or sequential priority belongs to the ratio. From this, however, one cannot infer an ontological priority or ultimacy for the ratio. Grosseteste also uses the aspectus-affectus motif in speaking of this sequential priority:

Aspectus vero primo aspicit; secundo aspecta sive cognita verificat et cum verificata fuerint apud mentem seu aspectum convenientia seu nociva, inhiat affectus ad amplexandum convenientia, vel in se ipsum retrahit, ut fugiat nociva.<sup>3</sup>

Grosseteste uses affectus as analogous to voluntas and aspectus as similar to ratio. He asserts that "rationis est arbitrium, voluntatis liberum."<sup>4</sup>

Grosseteste says that the twofold esse of the rational nature is made up of velle and apprehendere. He then attributes a definite priority to velle: "Primum igitur esse est velle et maximum esse. In velle enim primo et per se proprie

<sup>1</sup>De Lib. Arb. 17; BW 226.

<sup>2</sup>De Lib. Arb. 17; BW 227.

<sup>3</sup>De Art. Lib.; BW 1.

<sup>4</sup>De Lib. Arb. 17; BW 227.

consistit beatitudo, in 'aspicere' autem non."<sup>1</sup> Putting aside for the present the question of precedence, it is clear that the will and the intellect are not to be separated nor considered in isolation from each other. Sharp says that Grosseteste regards the faculties of the soul as modes of action rather than parts of the soul thereby preserving the simplicity of the soul. Sharp cites the following statement to substantiate this judgement: "Necesse est enim idem esse in essentia et in radice apprehensivum et appetitivum."<sup>2</sup> Grosseteste affirms this more explicitly in stating that "aspectus et affectus, ratio scilicet et voluntas, licet simpliciter loquendo haec non sit illa, sunt tamen unum in radicis una essentia."<sup>3</sup> Here also the simplicity of the soul is affirmed. He says that "non enim appetitur, nisi quod comprehenditur."<sup>4</sup> This prior comprehension does not negate the freedom of the will.

The voluntas and ratio are bound up together in the one will. Discernment and comprehension of the possible alternative courses of action are prerequisites to willing. However, knowledge of the truth is also dependent upon the voluntas or affectus and the condition of the same. This is especially true concerning knowledge of the supreme Truth. This does not preclude divine illumination in any way, for such illumination is presupposed. Grosseteste believes that only if the soul seeks and

<sup>1</sup>De Lib. Arb. 18; BW 231.

<sup>2</sup>De Lib. Arb. 17; BW 227.

<sup>3</sup>Ibid.

<sup>4</sup>Ibid.

loves the supreme Truth and the things above, rather than the corporeal, is it able to have knowledge of such Truth. The human will, of course, cannot choose the right or the good apart from gratia iuvans. We shall see that sense knowledge is required because of the soul's love of corporeal things. We shall now examine more closely the spiritual or moral conditions required for knowledge of the truth, namely, the aspectus-affectus motif and the notion of purity of heart.

### (3.2.2) Aspectus-affectus motif and the purity of heart

The affectus and aspectus of the soul are discussed by Grosseteste in many of his treatises. D. A. Callus holds that the motif is the main idea in De Artibus Liberalibus. He also states that the source of the theory is Augustine's Soliloquia and the pseudo-Augustinian De Spiritu et Anima.<sup>1</sup> It is certain that Grosseteste develops this motif under the inspiration and impetus of Augustine. Moral purity and cognition of the truth go hand in hand. The reason for this is that the impure soul desires corporeal things and fails to incline itself towards the incorporeal truth. Consequently, the reason or intellect itself cannot lift its gaze upon the truth except as it is bound up with the corporeal. As Grosseteste affirms:

Causa autem quare obnubilatur visus animae per molem corporis corrupti, est quod affectus et aspectus animae non, sunt divisi, nec attingit aspectus nisi quo attingit amor

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<sup>1</sup>Callus, "Robert Grosseteste as Scholar," RG, p. 21.

et affectus. Cum ergo amor et affectus animae converitur ad corpus, et illecebras corporales, necessario trahit secum aspectum mentis et a suo lumine avertit eum quod se habet ad ipsum sicut sol se habet ad oculos exteriores.<sup>1</sup>

The simplicity and unity of the soul will not allow the aspectus mentis to advance to levels of intellectual vision beyond that which is loved and towards which the affectus or voluntas is inclined. As long as the affectus mentis is attracted to the sensible and the corporeal there can be no perception of the truth except as it is bound up with the material. The soul must love the intelligible truth if it is to view and discern such truth. The soul must desire the supreme Truth if it is to know the same. The rational soul that is preoccupied with corporeal phantasms may nevertheless make true judgements concerning created entities. It is able to do this because of divine illumination. Grosseteste goes so far as to say that even the impure, insofar as they know some truth, know something of the supreme Truth "ignoranter." This does not mean that the impure view either "scienter" or directly the Truth itself that illuminates and makes knowledge possible.

In his commentary on Aristotle's Physics Grosseteste explains why the philosopher is unable to understand the simplicity of eternity:

Necesse fuit philosophos in hunc errorem incidere, quia ab errore de perpetuitate et [D104<sup>B</sup>] infinitate motus et temporis ex parte ante et ex parte post nullus potest scientificè liberari, nisi qui potest simplicitatem eternitatis intelligere; sed cum mentis aspectus, vel intelligencia, non possit superius ascendere quam ascendat eius affectus vel appetitus.<sup>2</sup>

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<sup>1</sup>Comm. Post. I.14; f. 18.

<sup>2</sup>Comm. Phys. VIII; Dales 147.

In a treatise which is also the concluding part of this last chapter of the commentary he states that "cum philosophorum affectus ligati erant plus cum transitoriis quam cum aeternis, ipsorum apprehensiva in phantasmatis mutabilium detenta simplicitatem aeternitatis attingere non potuit."<sup>1</sup> In the treatise in which he discusses the coeternity of the Son with God the Father Grosseteste speaks of those who cannot understand how this can be inasmuch as the Son is begotten of the Father:

Talibus hominibus non est via, ut liberentur ab errore, nec ut separent affectum ab amore temporalium et eum erigant in amorem caelestium, ut illuc tandem contingat aspectus, quod tendit effectus [sic], et sic videant solam Trinitatem in aeternitate simplici, spiritus incorporeos in mensura sequente, temporalia cum tempore, vel in tempore et comprehendant tempus finitum.<sup>2</sup>

The affectus must be turned from love of temporal things to love of heavenly things and the most simple measure of eternity in which it is not possible to have esse after non-esse. Only then can the aspectus begin to view the Trinity in terms of the measure of simple eternity. The aspectus clearly follows the leading of the affectus or voluntas. Grosseteste also says that one of the three causes of error is that the "affectus citra debitum sistit, vel ultra progreditur per immoderantiam. . . ." <sup>3</sup> Grosseteste does not hereby minimize that discernment, spoken of above, which is prerequisite to willing that which ought to be willed. However, only if the affectus is directed aright can

<sup>1</sup>De Finitate; BW 105.    <sup>2</sup>De Ordine; BW 150.

<sup>3</sup>De Art. Lib.; BW 1.

the mind begin to perceive that truth which is above the mind.

In the De Veritate treatise Grosseteste reflects the sentiment of Augustine and states that "multi igitur non mundi veritatem vident, qua verum est verum, quod sciunt. Sed soli mundi corde summam veritatem vident: 'Beati enim mundo corde, quoniam ipsi Deum videbunt'.<sup>1</sup> In discussing divine illumination Grosseteste states that the "unicordes vero et perfecte purgati ipsam lucem veritatis in se conspiciunt, quod immundi facere nequeunt."<sup>2</sup> He then proceeds to declare "quomodo nec etiam immundi penitus eius visione frustrantur."<sup>3</sup> However, only where there is purity of heart is there the "intellectus purus" which is able to contemplate the supreme Truth. Purity of heart is attained when the incorporeal eternal supreme Truth is loved and desired. As Grosseteste affirms elsewhere: "Sicut enim beatitudo in patria est gaudium in visione Creatoris et Restauratoris; sic justitia in via est amor humilis Creatoris et Redemptoris."<sup>4</sup>

### (3.3) The role of the senses in the acquisition of knowledge

It should be noted at the outset that Grosseteste is little concerned with the physiological processes and mechanics involved in sense perception and cognition in general. He is interested in the limited function of the senses as they assist the rational soul in the attainment of knowledge. The senses seem to operate

<sup>1</sup>De Ver.; BW 131.      <sup>2</sup>De Ver.; BW 138.

<sup>3</sup>Ibid.      <sup>4</sup>Dictum 129; Brown 281.

in a dialectical fashion insofar as they perform a service in the acquisition of knowledge even while they themselves are bound to the corporeal and cannot grasp the intelligible. The service of the senses is required because of the deficiency of mental sight and the rational soul. As already noted, this deficiency results from the corrupt mass of the body and the love of the corporeal and phantasmata. Man's rational powers are also affected by his love of sensible things and the misdirected will. It appears that sense perception is necessary because of a human deficiency. Sense perception does not seem to be a regular component of the cognitive process that is free from deficiencies. Grosseteste, moreover, does speak of the acquisition of knowledge without the aid of the senses.

### (3.3.1) Knowledge without the service of the senses

Grosseteste cites several cases in which there is knowledge without sense perception. The most significant instance of such knowledge is spoken as follows: "In mente enim divina sunt omnes scientiae ab aeterna, et non solum est in ipsa universalium cognitio certa, sed omnium singularium . . . ." <sup>1</sup> The singulars are known by means of the universal and the singular is known in the purity of its essence. Furthermore, the intelligentiae in receiving irradiation from the primary light are able to see without any senses all knowable things, both universals

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<sup>1</sup>Comm. Post. I.14; f. 18.

and singulars. The intelligentia, which is the highest part of the human soul, in its perfect state can have complete knowledge without the help of the senses. Here again the irradiation from the light above makes possible such knowledge.

It is evident that the senses are assigned a rather lowly position in the epistemological order and are only pressed into service because of defective mental sight. Under the impact of Aristotle's Posterior Analytics Grosseteste does come to acknowledge that the senses do have a significant role to play in view of the human predicament. He concurs with Aristotle that knowledge of universals calls for the inductive process which involves the apprehension of composite singulars. Consequently, when a particular sense is deficient a certain knowledge is also lacking. Because induction depends on singulars, where the apprehension of a certain set of singulars is missing there follows deficient induction and a deficient universal. As a result, demonstration is also impaired and the knowledge which is attained through demonstration is defective. Where there is no need for the senses there is no such deficiency of knowledge.

### (3.3.2) The limited capability of the senses

Although the senses serve as a means in the acquisition of knowledge, the knowable and the universal cannot be perceived by the senses. Grosseteste takes his lead from Aristotle in stating that the "universale autem cum sit res inventa in multitudine non est possibile sentire. . . universale namque est semper

et ubique."<sup>1</sup> He also states:

Similiter non contingit scire sensibilia, neque sensus est causa scientiae, sed occasio, . . . huius autem ratio est quod sensus talis est quod ipse est apprehensivus rei aliquis signati, et non simul apprehensivus alterius rei, quia necesse est scire rem signatam in loco signato, et tempore signato, quare non sentit nisi rem unam signatam.<sup>2</sup>

The senses perceive the singular thing or the particular event of phenomenon but not the universal which enables us to know the cause or propter quid of the attribute or event. Since knowledge of the universal is a prerequisite to demonstrative knowledge of the singular it is impossible to acquire demonstrated knowledge simply through sense perception. In demonstrated knowledge we are aware of the necessary connexion between the cause and the effect, the subject and its attribute. The senses in themselves cannot perceive that there is a necessary connexion which comes to be formulated in the universal or definition. Even should we be able to perceive with the senses how light passes through a glass "tamen sensus non est causa propria faciens nos scire, neque sensus illorum est ipsa scientia. Sed quorundum singularium sensus statim consequitur apprehensio et cognitio universalis ipsius singularis, non ergo sentiendo scimus, sed occasione ipsius sensus coaccidit in nobis cognitio universalis, et scientia. . . ."<sup>3</sup> It is clear that the senses have a place in the process of induction through which the universal is elicited. However, opinio is the highest level to be achieved through sense perception alone. Opinio has been described

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<sup>1</sup>Comm. Post. I.18; f. 25.

<sup>2</sup>Ibid.

<sup>3</sup>Ibid.

as that "visus rerum materialium in suis conditionibus materialibus secundum quae sunt transmutabiles. . . ."1

Through the senses, therefore, one cannot comprehend or intuit the truth which is intelligible and perceptible to the mind alone. The senses are restricted to the composite singular where the various characteristics of size, color, and shape are present as one. It is the ratio that begins to differentiate and distinguish such qualities and characteristics. Because the senses are restricted to the composite material singular they are said to be "debilissima virtutum apprehensivorum, apprehendens res singulares corruptibiles. . . ."2 However, the senses do play a role in the process of eliciting the universal so that if one of the senses is lacking the universal experimental principle will also be lacking.

Igitur manifestum est quod impossibile sit sentiendo scire aliquid demonstrabilium, nisi velimus nominare sensibilitatem scientiam demonstrativam, verumtamen quorundam scientia multotiens deficit nobis propter defectum sensus.<sup>3</sup>

Grosseteste further says that "manifestum itaque est quod deficiente aliquo sensu in omnibus habentibus mentis oculus mole corporis corrupti occupatum deficit etiam universale incomplexum ex singularibus sensus deficientis venatum . . . ."4

<sup>1</sup>Comm. Post. I.19; f. 27.

<sup>2</sup>Comm. Post. II.6; f. 43.

<sup>3</sup>Comm. Post. I.18; f. 25.

<sup>4</sup>Comm. Post. I.14; f. 18.

(3.3.3) The positive function of the senses in assisting the ratio and intellectus

The senses serve an important function in awakening the ratio so that the latter may direct itself to its own peculiar light.

Aspectus autem mentis aversus necessario convertitur, in tenebras et otium donec egrediens modo aliquo per sensus exteriores in luce sensibili exteriori per modum aliquem recipit lucis ad ipsum nate vertigium ad quod cum ostendit quasi excitatus incipit quarere lumen proprium et in quantum avertitur amor a corporibus corruptibilibus intantum convertitur aspectus ad suum lumen et intantum reperit ipsum.<sup>1</sup>

It is also said that the "ratio enim in nobis sopita non agit nisi postquam per sensus operationem fuerit exspecta."<sup>2</sup> As the senses repeatedly encounter sensible reality the ratio is awakened to its own proper task. Such an awakening is required because the powers of man's rational soul are laid hold of by the mass of the body and therefore cannot act and are in a way asleep.

Grosseteste also sets forth the function of the senses in his description of the process of induction and the abstraction of universals from the experiences of singulars. Sense apprehends the singulars and that which is received is retained by the memory. It is stated that "ex sensu igitur fit memoria, ex memoria multiplicata experimentum et ex experimento universale, quod est praeter particularia non quasi separatum a particularibus, sed est idem illis artis scilicet et principium scientiae."<sup>3</sup>

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<sup>1</sup>Ibid.

<sup>2</sup>Ibid.

<sup>3</sup>Comm. Post. II.6; f. 43.

Such a principium is neither innate nor derived from other knowledge:

Manifestum est igitur quod habitus talium principiorum non sunt in nobis ab initio copulati, neque generatur in nobis ab aliis habitibus notioribus, sed fiunt in nobis a sensu per reductionem de potentia ad actum, et sensus est fundamentum eorum quo existente poterit esse cognitio universalium, et quo deficiente definit in anima universalis cognitio. . . ."<sup>1</sup>

It is the ratio that discovers the universal "verumtamen non novit ratio hoc esse actu universale nisi postquam a multis singularibus hanc fecerit abstractionem et occurrit ei unum et idem secundum iudicium suum in multis singularibus repertum."<sup>2</sup>

A simple generalization is not adequate in itself. Through an intuitive act a necessary or causal relation or connexion must be recognized. This significant step is illustrated by Grosseteste where he speaks of observing the discharge of red bile whenever scammony is eaten. He describes the discovery of the causal relation by the reason:

Et ex hoc intentione estimata frequenter, et in memoria reposita et ex intentionibus sensatis a quibus accipitur intentio estimata expergiscitur ratio, ratio igitur expergefacta incipit admirari et considerare an res sese habeat, sicut dicit estimatio memorata! Et haec duo convertunt rationem ad experientiam.<sup>3</sup>

The experiment follows as the means whereby the universal is verified or falsified. Grosseteste also mentions the observation of many eclipses whereby the universal comes through to us "et sic haberemus demonstrationem ex universali quod dicit causam

<sup>1</sup>Ibid.

<sup>2</sup>Comm. Post. I.14; f. 18.

<sup>3</sup>Ibid.

simpliciter."<sup>1</sup> It would be worthwhile at this juncture to examine briefly Grosseteste's two-way via cognoscendi.

(3.4) The two-way via cognoscendi

In speaking of sense perception we were introduced to the way of induction and the elicitation of the universal. This is a necessary component in achieving scientific or demonstrative knowledge. Such knowledge involves considerably more than simply knowing that a specific entity exists or that a particular effect has indeed occurred. Scientific knowledge includes knowledge of the proximate cause of the thing known. Knowledge acquired through a cause that is not proximate is "scientia quia, est scientia dicta per posterius. . . ." <sup>2</sup> However, before one can proceed to demonstrate or show forth the cause of an observed attribute or phenomenon one must have a causal definition in hand. The latter is achieved through process of analysis and synthesis, the double movement which is called resolutio-compositio.

In response to Aristotle's doctrine that all instruction and knowledge of principles proceed from already existing knowledge Grosseteste states that there "est autem praecognitionis et cognitionis duplex via scilicet a simplicioribus in composita vel e converso. . . . Utreque enim per prius nota faciunt doctrinam."<sup>3</sup> Grosseteste speaks of those who have held opposing

<sup>1</sup>Comm. Post. I.18; f. 25.      <sup>2</sup>Comm. Post. I.12; f. 14.

<sup>3</sup>Comm. Post. I.1; f. 2.

views: "Cui contradicebant Achademici dicentes omnia ignorari, et Platonici dicentes quod scire non est ignotum addiscere, sed oblitum reminisci."<sup>1</sup> Grosseteste answers with Aristotle that "omne quod scimus per disciplinam, prius scivimus in suo universali, ignoravimus autem in se."<sup>2</sup> However, for one to achieve the universal or causal definition it is necessary to pursue resolutio or analysis. Demonstrated knowledge presupposes prior knowledge involving assumption of the existence of the unit or particular and the meaning of the term. Only the latter need be presupposed when a particular unit is not the object of consideration. Although it is not explicitly stated, it is clear that the term and its meaning are also derived from the experience of particulars. Grosseteste also speaks of prior knowledge being divided into two parts in the following manner, "scilicet esse de principiis, et quid est quod dicitur de passione, et haec duo coniunguntur in tertio scilicet, in subiecto. Hic autem nunc dicuntur haec per modum divisionis solum, posterius loco suo dicentur per modum verificationis."<sup>3</sup> In this double via there is praecognitio whether the point of departure in a given instance is the composite or the simple, the effect or the principle. In either case the esse, the meaning, and the knowledge of both factors are presupposed.

The way of resolutio begins with the composite, that which is more knowable to us at the outset but posterior in the order

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<sup>1</sup>Ibid.

<sup>2</sup>Ibid.

<sup>3</sup>Ibid.

of nature. Grosseteste describes this procedure in the following manner:

Via autem innata nobis ad perveniendum in principiorum cognitionem est ex intencionibus universalibus ad ipsa principia et ex totis que constant ex ipsis principiis. . . . Sicut igitur generaliter est via cognitionis ex totis universalibus confusis in species magis determinatas, eciam ex totis integralibus acceptis confuse. . . in partes ipsas per quas diffiniri potest ipsum totum et a diffinitione redire in determinatam cognitionem totius.<sup>1</sup>

The way of knowledge moves from the whole composite entities which are perceived by the senses. It is the ratio which begins to discern and make true distinctions: "Racio vero diu dicat integritatem atque veras prosequitur differentias. Sed sensus invenit quedam proxima et confusa veritati, accipit vero ratio integritatem."<sup>2</sup> It is a matter of proceeding from what is prior in the order of knowing to what is prior in the order of nature. Grosseteste speaks of Aristotle's method of arriving at a definition of a substance or phenomenon through the way of resolutio:

Cognita sic arte diffiniendi per viam compositionis, consequenter docet Aristoteles venari diffinitionem per viam resolutionis, hoc est per viam accipiendi primo compositiora, hoc est inferiora, et ascendendi ab ipsis per partitionem usque ad superiora simpliciora, est autem ars talis.<sup>3</sup>

Grosseteste goes on to say that it is "manifestum itaque quod diffinitio facit certam visionem substantiae."<sup>4</sup> The purpose in seeking such a definition or vision is to set forth the cause

<sup>1</sup>Comm. Phys. I; Dales 1-2.

<sup>2</sup>Comm. Phys. I; Dales 5.

<sup>3</sup>Comm. Post. II.4; f. 39.

<sup>4</sup>Ibid.

of an attribute or phenomenon, which cause then functions as a middle term in demonstrating or setting forth the "propter quid." It is stated that the "genus enim causa est, et radix a qua egrediuntur differentiae et species, quicquid enim est animal propter hoc quod ipsum est animal rationale vel irrationale."<sup>1</sup> In simply knowing that there exists a particular attribute or effect one still lacks knowledge of the cause or true scientific knowledge. To argue from the effect, although prior in the via cognoscendi, is to fall short of the middle term or cause responsible for the effect.

There are two types or categories of syllogism and each of these can be divided further into mediate and immediate: "Sed si dicatur syllogismus quia, omnis qui ostendit per effectum, et syllogismus propter quid, omnis qui ostendit per causam erit uterque tam ostendens per mediata quam immediata."<sup>2</sup> In the "syllogismus propter quid" there is knowledge of the proximate cause. Such demonstration requires a definition which is an "explicatio essentiae rei, et faciens cognoscere essentiam, et manifestum est quod demonstratio non facit cognoscere essentiam rei, sed facit cognoscere hoc de illo."<sup>3</sup> It is stated that demonstrations do not explicate the substantia of the thing but "accipiunt diffinitiones quae sunt ante demonstrationes, ut arithmetica qui unitas, et quid impar, et aliae mathematicae

<sup>1</sup>Comm. Post. II.4; f. 40.

<sup>2</sup>Comm. Post. I.6; f. 6.

<sup>3</sup>Comm. Post. II.2; f. 30.

similiter."<sup>1</sup> Grosseteste says that "quaerentes propter quid est, quaerimus causam, et quaerentes causam rei, quaerimus eius definitionem, quia idem est causa rei proxima et eius diffinitio. . . ."2 It is apparent that such a definition is more than simply a nominal definition. A causal definition is required. How is the cause or middle term perceived? Grosseteste qualifies Aristotle's assertion that the cause for such a phenomenon as a lunar eclipse could be perceived by the senses if the perceiver were positioned on the lunar surface. Grosseteste makes the following qualification:

. . . non tamen sentiremus defectum universalem nec causam defectus universalem, sed ex occasione sensus huius singularis defectus, et huius singularis interpositionis statim intelligeremus universalem causam omnis defectus, unde scientes hoc singulare non quaereremus causam, eo quod cointelligeremus statim universalem causam.<sup>3</sup>

Knowledge of the existence of a thing is closely related to the knowledge of the quidditas of the thing. Grosseteste says that "possumus igitur scire si est per medium accidentale non habentes quod quid est eiusdem rei, sed hoc non est demonstrative scire. . . ."4 However, to the degree that we know the quidditas of the thing "habemus scientiam demonstrativam de esse eius simpliciter, et e converso ut scimus demonstrative de esse eius simpliciter, tamen novimus de quidditate eius, quia non scimus demonstrative rem esse nisi per definitionem eius quae

<sup>1</sup>Ibid.      <sup>2</sup>Comm. Post. II.1; f. 29.

<sup>3</sup>Ibid.      <sup>4</sup>Comm. Post. II.2; f. 33.

explicat quidditatem eius."<sup>1</sup> Grosseteste concurs with Aristotle that there are different ways in which we know that a thing or phenomenon exists. Accidental knowledge of some fact or knowledge of it only through its effect does not provide demonstrative knowledge of its existence. Such demonstrative knowledge is only acquired through knowledge of the quidditas or causa of the event or thing.

Through resolutio and the opposite procedure of compositio the definition is acquired. In the process of compositio one begins with that which is most universal and simple and through synthesis of attributes belonging to subordinate differentiae one arrives at a full definition of the composite particular. Compositio presupposes that the more simple definition of the genus has already been formulated. The composite definition sets forth the reason for the particular effect or attribute observed. The common middle term or principle common to a whole genus can serve to explain that which is empirically observed in each instance. Grosseteste finds that repercussion is such a common middle term or cause in relation to the echo, the rainbow, and the reflection of light:

Et quaedam sunt sic se habentia adinvicem quod unum est causa alterius, et sub alio in ordine causali. Verbi gratia. Echo et iris apparentia idolorum in speculis sunt sicut species opposite sub uno genere analogo quod est repercussio, et omnia sunt sicut unum in genere, de quibus per medium unum potest ostendi passio una analoga, et de quo-

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<sup>1</sup>Ibid.

libet divisim per medium proprium passio eadem appropri-  
ata. . . .<sup>1</sup>

Here we observe a generic cause that is used to explain different but analogous effects or phenomena. Through compositio one returns to the composite particular and reaches the "diffinitio explicans integre rei essentiam."<sup>2</sup> Such a definition is termed a "colligenda diffinitio" or "aggregatio." Regarding such a definition Grosseteste states that "oportet namque in diffinitione id quod prius est, natura et universalius prius ordinari, et consequenter, quod consequenter est in ordine naturae."<sup>3</sup>

Grosseteste speaks of definitions in terms of the four causes. It is stated that the formal cause is the cause that is identical with the thing. To know the nature of a substance is to know its causes. Grosseteste says that "physici est cognoscere rerum naturalium causas quattuor. . . ."<sup>4</sup> He states that the "ratio demonstrans de re quia est, est eius causa aliqua, et eius diffinitio cum idem sit causa et diffinitio."<sup>5</sup> The causa or diffinitio can serve as the medium in the demonstration which shows forth the propter quid of the attribute or event. It is asserted by Grosseteste that the final and efficient causes have in themselves the description and being of the caused in a more noble manner than the thing in itself. The formal cause is

<sup>1</sup>Comm. Post. II.4; f. 40.

<sup>2</sup>Comm. Post. II.4; f. 39.

<sup>3</sup>Comm. Post. II.4; f. 37.

<sup>4</sup>Comm. Phys. II; Dales 37.

<sup>5</sup>Comm. Post. II.2; f. 33.

truly the thing itself and the material cause has a description of the caused in itself but in a weaker and less noble manner.

Grosseteste believes that Aristotle comprehends under formal definition the definition according to the finis as much as the form which is inside the thing "vel quae est exemplar formae interioris."<sup>1</sup> Grosseteste then states: "Finis enim est actus et operatio egrediens a forma interiori, et secunda perfectio rei, unde non immerito nomine formae censeri debet."<sup>2</sup> Formal definitions are looked upon as causes of material definitions. The composite definition is made up of the formal and material definition of the thing. Grosseteste says that such a definition "est idem quod demonstratio non differens a demonstratione nisi in situ et ordine terminorum, et dico quod diffinitio composita est idem cum demonstratione. . . ."<sup>3</sup> In the "diffinitio coniuncta" or "diffinitio composita" the material definition is ordered before the formal whereas when we have this definition as "diffinitio in demonstratione" the formal definition is ordered before the material.

Grosseteste describes the nature and cause of thunder thereby illustrating the above definitions. A composite definition of thunder states that thunder is the extinction of fire in a cloud on account of a continuous sound in a cloud. If the position is converted we have "composita demonstratio demonstrans

<sup>1</sup>Comm. Post. II.2; f. 34.

<sup>2</sup>Ibid.

<sup>3</sup>Ibid.

diffinitionem materialem de diffinito."<sup>1</sup> Grosseteste clarifies the order in the "diffinitio coniuncta" by explaining the prop-ter quid as that which "non dicit circumstantiam causae efficientis, sed circumstantiam causae finalis, propter hoc, enim extinguit natura universalis ignem in nubibus ut perveniat continuus sonus in nubibus. . . ." <sup>2</sup> The reasoning behind this order is that "forma est finis materiae et quod materia in veritate non efficit formam, sed est occasio vere efficientis ut vere efficiens agat et inducat formam in materia."<sup>3</sup> Grosseteste remarks that Aristotle speaks of the definition also as sylog-ismus. We have already noted how the composite definition is said to differ from the demonstratio only in the arrangement and ordering of the terms. Aristotle asserts that the definition is achieved with the aid of demonstration and that the definition is required in syllogistic reasoning. This is not to say that the definition is acquired strictly through syllogistic reasoning.

Grosseteste describes the ratio in view of its functioning in connexion with both syllogism and definition:

. . . est virtus cadendi super occultum, haec autem virtus discurrit in cognitionem occulti super aliud notum, per quod venit in notitiam ignoti. Ea autem super quae discurrit sunt syllogismus et diffinitio, per quorum alterum venit in notitiam complexi ignoti, et per aliquem in notitiam incomplexi. . . .<sup>4</sup>

In this context Grosseteste speaks of the "diffinitio terminus"

<sup>1</sup>Ibid.    <sup>2</sup>Comm. Post. II.2; f. 35.    <sup>3</sup>Ibid.    <sup>4</sup>Ibid.

which is the definition that "exprimit totam rem, ita quod nihil minus aut nihil amplius. . . ." <sup>1</sup> In achieving such a definition through the methods of resolutio and compositio outlined above the inter-connexions between causes and effects become most apparent.

Anyone of the four causes can be the demonstrative middle. The same thing can be demonstrated through a plurality of causes. Grosseteste cites Aristotle's example of the light shining through a lantern. Aristotle speaks of that final cause which is to prevent stumbling <sup>and</sup> the material necessity of the penetration of large pores by small particles. Grosseteste says that we also have in this instance a formal cause: "Causa enim formalis disgressionis luminis per pellem lucernae est ipsa generatio luminis secundum incessum rectum, et propter hanc causam disgreditur." <sup>2</sup> Grosseteste states that natural things have forma in materia and necessarily have themselves in accordance with the natural form. He agrees with Aristotle that necessity in nature is of two kinds. There is the necessity "secundum naturam" and that "secundum violentiam." Aristotle also speaks of demonstrating the material and final causes of many things in nature. Grosseteste, however, excludes the consideration of final causes from the field of investigation in physics except in the case of physical hearing as a final cause of an organ and other cases of the same nature.

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<sup>1</sup>Ibid.      <sup>2</sup>Comm. Post. II.3; f. 36.

Grosseteste discusses the problem raised by Aristotle pertaining to effects that are separated from their causes by a time interval, in which case it cannot be said that this effect follows upon this cause. In such cases demonstration can proceed from the effect but not from the cause to the effect. Grosseteste states: "Igitur tantum nunc accipiatur de causa media syllogistica in his quae non sunt simul scilicet cum sint diversa per tempus, medium causa et causatum, a posterius facto sit syllogismus."<sup>1</sup> The point being made is that on the basis of an event that has occurred one can argue that an earlier event or cause had occurred but one cannot argue that a later event will occur on the basis of an event that has already taken place. Grosseteste asserts that the cause which is not the total cause but which requires some further condition in order to effect something is not necessarily simultaneous with the caused, and herein the cause can precede the effect in time. It would appear that this latter qualification is required if the above rule is to hold and is to remain intact. Both Aristotle and Grosseteste hold that there are cases where the prediction of an effect on the basis of a total cause is certainly warranted even though this cause and its effect are separated by a time interval. That they teach the latter is evident in their discussion of the necessary cycles in nature and the corresponding demonstration. This demonstration is distinct from that circular demonstration

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<sup>1</sup>Comm. Post. II.3; f. 37.

in which it is believed that all knowledge is demonstrable. Grosseteste states the following regarding the events making up these natural cycles:

. . . et quaelibet earum potest esse primum notum et primum acceptum ex sensu vel experimento, et est in talibus causis convertibilitas necessario, et ita possunt ex seinvicem syllogizari, unde cum demonstratio sit syllogismus ex causis et immediatis, manifestum est quod quaelibet talium causarum aliam demonstrabit, sicut est videre in operibus naturae. . . .<sup>1</sup>

It is to be noted that there is no closed circular reasoning here seeing that an appeal is made to sense experience. Such a cycle as wet earth-vapour-cloud-rain-wet earth is the type that is described. In such a case one can argue in either direction and from cause to effect even though they are not simultaneous or contiguous. It is clear that no rain is the cause of itself but rather of other rain. Grosseteste concurs with Aristotle in stating:

. . . ex necessariis quae semper sunt non sequuntur nisi necessaria et quae semper sunt. Eorum ergo quae frequenter sunt, principia sunt sicut frequenter, cum non possint esse necessaria, nec sunt contingentia erratica, eo quod contingens erraticum non est causa contingentis nati, frequenter autem sunt res naturales quae quantum est de natura, et circumscripto impedimento semper sunt. . . .<sup>2</sup>

It is evident that from necessary premises and antecedents follow necessary conclusions and consequents.

Grosseteste agrees with Aristotle that for one effect there can be no plurality of causes "si est demonstratio per se, et non secundum effectum aut secundum accidens. . . ." <sup>3</sup> On the other

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<sup>1</sup>Ibid.

<sup>2</sup>Ibid.

<sup>3</sup>Comm. Post. II.4; f. 41.



hand, the cause for the same effect found in different subjects or species may be different, in other words, it is possible that different subjects manifest the same effect but for different reasons. However, for the subjects of several species there may be a universal or common cause responsible for the inherence of an attribute or effect common to all the species while at the same time there can be different causes more approximate to the subjects. The diverse proximate and posterior causes of the same effect in the different species cause them to be subsumed under the universal and prior cause and effect.

It is through the twofold via cognoscendi, viz., resolutio and compositio, that the causal definitions of things are formulated which serve as the basis for demonstration. From the experience of the composite singulars the perceiving subject proceeds to the simple universals and the experimental universal principles. From the latter one returns to the singular which is now understood both in terms of its remote and its more proximate causes. It must be noted that Grosseteste does not simply accept Aristotle's theory of induction without qualification. Not only does Grosseteste have a different understanding of the ontological status of the universals but he also admits the need for divine illumination throughout the process of induction and subsequent perception of the universal. He states that Aristotle credits knowledge of first principles to "virtus intellectiva" alone. Grosseteste, however, believes that the "lux spiritualis

per se visibilis a mentis aspectu"<sup>1</sup> is an essential prerequisite in arriving at universal principles. In place of the active intellect Grosseteste has divine illumination. The acquisition of knowledge calls for co-operation between God and the individual intellect. D. E. Sharp has this to say about such co-operation:

Grosseteste probably conceived the co-operation in much the same way as he did that of grace and freewill. Grace is like light streaming through coloured glass, the effect of which is a coloured ray in which both the colour and the light are preserved — cf. De Lib. Arb., p. 202:18<sup>2</sup>

It is clear that man as a knowing subject is dependent upon God and the illumination that he provides. This illumination is not only necessary for knowledge of the supreme Truth but for the knowledge of created truth as well. The individual human soul is certainly active but it operates under the influence and guidance of the spiritual light mentioned.

The question may be raised as to why there cannot be immediate and direct perception of the truth of material and physical causes and phenomena since divine illumination is operative in this realm as well. In his treatise on truth Grosseteste does teach that true judgements regarding the degree of conformity of a res to its ratio can be made intuitively and immediately under divine illumination. As noted earlier, Grosseteste finds that resolutio and elicitation of the universal, which begin with sense experience, are required inasmuch as the ratio is asleep

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<sup>1</sup>Comm. Post. II.6; f. 43.    <sup>2</sup>Sharp, op. cit., p. 34, n. 5.

and the eye of the mind is bound by the mass of the corrupt body. It must be remembered that under divine illumination the pure intellect can intuit directly and immediately the natures and causes of material entities without engaging in resolutio and the inductive process. Because of the condition of the human knowing subject repeated sensing of the singulars of a particular species is required if the ratio is to be awakened and directed to the intelligible. Divine illumination is not obviated, however, whatever the condition of the intellect or reason.

### (3.5) Experimental verification and falsification

We shall only briefly discuss Grosseteste's use of experiment in the verification of the universal experimental principle. A. C. Crombie has dealt with this at some length in his book entitled Robert Grosseteste and the Origins of Experimental Science.<sup>1</sup> This text should be consulted for a more thorough treatment of this facet of Grosseteste's scientific method. Our present purpose is simply to point out some of the most significant steps in the procedure of verification through experiment. The purpose of the experiment is to ascertain which of a number of possible causes is indeed the actual cause. We noted above that different subjects may manifest the same effect but the causes may differ from subject to subject.

Crombie states that Grosseteste "based his method of verif-

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<sup>1</sup>Cf. Chapter IV, pp. 61-90.

ication and falsification on two assumptions about the nature of reality."<sup>1</sup> The principle of the uniformity of nature is the first assumption. Crombie cites a formulation of this principle from Grosseteste's De Generatione Stellarum: "Res eiusdem naturae eiusdem operationis secundum naturam suam effectivae sunt. Ergo si secundum naturam suam non sunt eiusdem operationis effectivae, non sunt eiusdem naturae."<sup>2</sup> Another assumed principle is the principle of economy or the lex parsimoniae. This principle is in evidence where Grosseteste asserts that the power from the natural agent is greatest when it pursues a short line over against a long line and a straight line over against an oblique line: "Sed si per lineam rectam: tunc est actio fortior et melior, ut vult Aristoteles V Physicorum, quia natura operatur breviori modo, quo potest. Sed linea recta omnium est brevissima, ut ibidem dicit."<sup>3</sup> Grosseteste also agrees with Aristotle that the demonstration which proceeds from fewer postulates and premises is better, other factors being equal. He says further: "Similiter est in naturalibus et moralibus et metaphysicis, quod optimum est quod nullo eget, et melius quod paucioribus eget alii paribus existentibus."<sup>4</sup> It is to be noted here that the best mode of acquiring knowledge is through direct intuition of the

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<sup>1</sup>Crombie, Robert Grosseteste, p. 85.

<sup>2</sup>De Generatione Stellarum; BW 32.

<sup>3</sup>De Lineis Angulis et Figuris seu de Fractionibus et Reflexionibus Radiorum; BW 60-61.

<sup>4</sup>Comm. Post. I.17; f. 23.

truth in contrast to the drawing of conclusions on the basis of premises.

Crombie discusses Grosseteste's method of falsification through reductio ad impossibile. This calls for theoretical deduction rather than experimentation as such. Crombie characterizes this form of argument as the modus tollendo tollens and cites the De Calore Solis treatise as illustrating the use of this form.<sup>1</sup> In this procedure of reductio ad impossibile it becomes apparent that the conclusions or consequences deduced from the explanatory hypothesis are impossible by reason of the known natures of things and the observed effects. Grosseteste states in De Calore Solis that it is through ratio and experimentum that valid theory regarding the production of heat is achieved. In this treatise Grosseteste argues that heat is generated by the sun through the concentration of rays. It is through reasoning by reductio ad impossibile that Grosseteste shows that the other means of generating heat cannot be used to explain how the sun produces heat. In De Generatione Stellarum Grosseteste argues on the basis of the principle of uniformity and observation in connexion with reductio ad impossibile that "ergo sphaerae et suae stellae non sunt eiusdem naturae."<sup>2</sup> The argument proceeds as follows. Assuming the premise that the

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<sup>1</sup>Crombie, "Grosseteste's Position in the History of Science," RG, p. 116.

<sup>2</sup>De Generatione Stellarum; BW 32.

sun and its sphere are of the same nature it follows that they produce the same operations and effects. It must be deduced from this, however, that there would be "generatio" perpetually and simultaneously in every single climate. This latter statement is seen through observation to be false and it must be concluded, therefore, that the sun and its sphere are not of the same nature. Here a theory is proven false on the basis of accepted universal principles and observation.

Verification of a proposed causal definition or explanatory hypothesis is also achieved through appeal to observation or experience, experiment, and the already established principles of the special sciences. We shall not discuss within this context Grosseteste's ordering and structuring of specific disciplines in terms of their interrelationships as those subordinating and those subaltern. Our present concern is simply to note that for Grosseteste experimentum as experience is not the whole of what is required in verification and falsification. Theories that are proposed must be verified or falsified also on basis of the established rationes of specific sciences. At this point, however, we are interested particularly in Grosseteste's general modes of procedure in verification. Grosseteste explains why invalid theories are proposed regarding the nature of comets: "Hec ergo sunt opiniones de natura talium apparitionum quas possibile est ut performet sibi animus experimentis in rebus naturalibus cum non profundaverunt cum eis rationes scientiarum

specialium."<sup>1</sup> Appeal must be made to such rationes, whether physical or metaphysical, in addition to observation and experimentum. In connection with this Grosseteste has the following to say with respect to the production of the colors of the spectrum:

Quod autem secundum dictum modum se habeat colorum essentia et eorundem multitudo, non solum ratione, verum etiam experimento manifestum est his, qui scientiae naturalis et Perspectivae profundius et interius noverunt principia.<sup>2</sup>

In other words, there must be knowledge of the principles of optics if one is to formulate and verify a theory concerning the phenomenon of light. In his treatise De Lineis, Angulis et Figuris Grosseteste states that the "utilitas considerationis linearum, angulorum et figurarum est maxima, quoniam impossibile est sciri naturalem philosophiam sine illis."<sup>3</sup> It is not to be implied that geometry per se informs us of the causes of such phenomena as the reflection and refraction of light.

If a proposed causal definition or explanatory hypothesis is to be considered valid not only must it not run contrary to already established principles but it must be shown to lead to the effect whose cause is sought. In the former it is coherence that serves as the check but coherence alone does not indicate that it is this cause which is the cause of this effect. Established rationes do demonstrate which theories are false but

<sup>1</sup>De Cometis et Causis Ipsarum, ed. S. H. Thomson, Isis, Vol. XIX (1933), p. 23; cited by Crombie, Robert Grosseteste, p. 90.

<sup>2</sup>De Colore; BW 79.

<sup>3</sup>Op. cit.; BW 59.

experimentum is also required if a given theory is to be verified. This means that the effects extrapolated or deduced from the proposed cause must agree with the actual effects observed and experienced. Grosseteste rejected certain theories regarding comets because effects deduced on the basis of the rationes were contrary to the actual observed effects. This is the matter of discovering that cause which saves the observed appearances or effects. Grosseteste, however, did not consider observation to be all that is required. There is also the need for experiment.

Grosseteste did not conduct many experiments himself. As Crombie says: "He was, in fact, primarily a methodologist rather than an experimentalist. . . ." <sup>1</sup> Grosseteste performed an essential task in formulating methodological principles on the basis of which experimentation would be conducted. Crombie cites a most basic principle:

Nevertheless, it was one of the basic principles of his theory of science that theories must be put to the test of experiment and that if they were contradicted by experiment then they had to be abandoned. In the next generation such natural philosophers as Roger Bacon and Petrus Peregrinus and, later, Theodoric of Freiburg were to use this principle as the basis of some really thorough and elegant pieces of experimental research. <sup>2</sup>

It cannot be said that Grosseteste did not experiment at all. He speaks of an experiment in which one establishes the universal experimental principle "quod scamonea omnis secundum se educit

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<sup>1</sup>Crombie, Robert Grosseteste, p. 124.    <sup>2</sup>Ibid.

choleram rubiam."<sup>1</sup> After other causes producing red bile have excluded, then one administers scammony repeatedly. If red bile is discharged in each instance then the universal principle comes to be formed in the reason. Here we find the reproduction of the cause of the effects that have been observed. The intention is to ascertain and prove which one of a number of theories of possible causes sets forth the actual cause.

The phenomena studied in astronomy, an area of major interest to Grosseteste along with optics, are not readily amenable to such experimentation. The universal dealing with the lunar eclipse is based upon repeated observation of many eclipses and the intuitive act of the mind. Such knowledge also presupposes knowledge of other principles related to the movement of the celestial bodies and light. We have already noted the strategic role of lux in Grosseteste's thought. Optics is of special interest to Grosseteste who divided the science into three parts. The first part pertained to vision, the second dealt with mirrors, and reflection, and the third involved the study of lenses and refraction. The science of the rainbow is found under the third division. Grosseteste made an important advance in understanding the phenomenon of the rainbow. Grosseteste utilized theories of refraction, reflection, and light in developing his theory on the rainbow. From different kinds of spectra Grosseteste sought those principles in terms of which such a spectrum as that pro-

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<sup>1</sup>Comm. Post. I.14; f. 18.

duced by the rainbow could be explained. As Crombie states:

When faced with a complicated and intractable phenomenon, such as the rainbow was, Grosseteste proceeded to reduce it to terms of a simpler and more tractable phenomenon, the refraction of light at the junction of two media, which he could describe by mathematics and investigate by experiment.<sup>1</sup>

Grosseteste therefore opened the way for future experimentation through which theories could be verified or falsified. Although his theory on the rainbow was lacking, Grosseteste contributed a sound methodological basis upon which advances could be made in the understanding of such phenomena.

Grosseteste believed that reflection was determined by the nature of light itself which operates according to the "operatio naturae." As he states:

Causa namque aequalitatis duorum angulorum factorum super speculo ex ratio incidenti et reflexo non est medium sump- tum ex geometria, sed eius causa est natura ratiositatis sese generantis . . . .Cum enim operatio naturae sit finita et regularis necesse est ut via regenerationis sit similis viae suae generationis, et ita regeneratur in angulo ae- quali angulo incidenti.<sup>2</sup>

Grosseteste, however, holds that we also learn of the law of reflection and the law of refraction through experiments.

Quod autem sic determinetur anguli quantitas in fractione radii, ostendunt nobis experimenta similia illis, quibus cognovimus, quod refractionis radii super speculum fit in angulo aequali angulo incidentiae. -- Et idem manifestavit nobis hoc principium philosophiae naturalis, scilicet quod 'omnis operatio naturae est modo finitissimo ordinatissimo, brevissimo et optimo, quo ei possibile est.'<sup>3</sup>

<sup>1</sup>Crombie, Robert Grosseteste, p. 127. <sup>2</sup>Comm. Post. I.8; f. 9.

<sup>3</sup>De Iride seu de Iride et Speculo; BW 74.

Through such observations and experiments theories and proposed causal explanations are seen to be valid. Experiment is therefore to be numbered among the media cognoscendi.

#### 4. Realism and immediacy in Grosseteste's doctrine of knowledge

In view of the number of senses attributed to the word 'realism' and the number of ways in which it is used it is essential that there be some clarification as to what is intended. In the history of the universals controversy different positions relating to the existence of such universals are described basically as realist, moderate realist, and nominalist. Our major concern at this point is not to examine at length Grosseteste's position with respect to universals. It is another kind of 'realism' that is of particular interest in connexion with Grosseteste's epistemology.

It is clear from his doctrine of truth that Grosseteste believes in the existence of universals as understood by him. On the other hand it must be noted that he nowhere attributes to universals an independent and separate existence. Grosseteste speaks of the universal and its relation to the particulars according to the analogy of generated light. He states:

Et puto quod unitas universalis in multis particularibus assimilatur unitati lucis in luce gignente et genita. . . . Alia utique est lux in sole et alia in aere, non tamen sic penitus est alia quin aliquo modo sit unitas essentiae in gignente et genita luce. Aliter, enim, lux genita esset totaliter de nova creata et ex nihilo. Ergo universale non est figmentum solum, sed est aliquid unum in multis.<sup>1</sup>

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<sup>1</sup>Comm. Post. I.17; f. 22.

The universal is not a figment or fiction but is some one thing present in the many particulars. Grosseteste also speaks of universals as the ideae in the divine mind: "Si autem universalia sint ideae in mente divina, tunc universalia ubique sunt per modum quo causa prima ubique est."<sup>1</sup> Such ideae "in se prodigia non sunt, sed cum intellectus vult facere eas praedicabiles de rebus a quibus sunt divise et separate, in hac ordinatione prodigia sunt."<sup>2</sup> The exemplary forms of things are also found in the created light which is intelligentia. As causal reasons they exist in the powers and lights of celestial bodies. In the light of such doctrine Grosseteste can be termed a type of 'realist' with respect to universals.

One hardly needs to mention that he is also a 'realist' where 'realism' signifies the belief that the object of knowledge exists outside the mind of the knower and is not dependent on the mind of the knower for its existence. For Grosseteste only the divine mind is determinative of the nature and existence of created entities and subsequent creaturely knowledge.

There is another 'realism' in Grosseteste's epistemology which is of considerable consequence and which warrants our close attention. In this 'realism' the stress falls upon the real or the res. A doctrine of knowledge that is 'realist' in this sense holds that we know res themselves whether such is known through some type of representation or through direct intuition. That

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<sup>1</sup>Comm. Post. I.18; f. 25.

<sup>2</sup>Comm. Post. I.15; f. 20.

which represents may be an idea, a concept, or any other kind of phantasm. Grosseteste, on the other hand, teaches a more direct and immediate viewing and perception of res themselves and their truth. The knower views things and their truth which is perceptible to the mind. There are, of course, such vital prerequisites as illumination, right willing, and mental sight whose functions were examined above. It can be said that such prerequisites make possible a direct viewing or knowing of intelligible res themselves. Although such direct and immediate perception of the truth is not always immediately realized, as is the case where the knower has to begin with sense perception of the composite whole, none the less, the knowing subject can eventually arrive at such direct perception. The healthy and pure intellect perceives directly the truth and being of the thing and the first light itself. In contrast to the intellectual soul Grosseteste says the following about the rational soul: "Intelligit enim non sine phantasmate, quod est actus virtutis sensitivae."<sup>1</sup> Such a phantasma is simply a means to an end and is transcended inasmuch as "intellectus, enim, et scientia apprehendunt res in puritate essentiae suae, sicut in seipsis sunt."<sup>2</sup>

Grosseteste does not teach that we are finally left with a concept or mental image or phantasm which represents the res. The knowing subject comes to know the res itself. Even the

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<sup>1</sup>De Statu; BW 125.

<sup>2</sup>Comm. Post. I.19; f. 27.

universal that is perceived after the sensing of the particulars of a species is a res found in the many which is known in itself as such. The universal is not some thing that stands between the knower and something else which it represents. Although one knows the essence of each member of the species in knowing the universal, one does not thereby know the singular as this or that singular. This would be possible only if the universal could represent the actual being<sup>of</sup> the singular or particular. So too, in knowing the particular only in its own immanent form one does not thereby apprehend its exemplary form and uncreated ratio existing in the supreme Truth. The former is not in the category of the latter even though there is a similitude. Mental or intellectual sight along with the whole range of intelligible entities make possible the direct viewing of the truth on the various levels.

Grosseteste's realism is also manifest in his theory of vision. The radiation of visual rays from the eye together with the radiation of the exterior shining body are completely responsible for vision. In connexion with this Grosseteste has this to say: "Nec putandum, quod egressio radiorum visualium sit positio imaginata solum absque re, sicut putant illi, qui partem considerant et non totum."<sup>1</sup> One cannot describe vision apart from this twofold emission which includes the radiation from the exterior body.

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<sup>1</sup>De Iride seu de Iride et Speculo; BW 72.

Grosseteste's realist doctrine of knowledge lays special emphasis on the singular or individual and knowledge of the same. In De Libero Arbitrio Grosseteste stressed divine knowledge of singulars and individual things. In his De Veritate treatise Grosseteste devoted a considerable amount of attention to the singular and its conformity and lack of conformity to its ratio. In the light of the supreme Truth the extent of such conformity becomes known. In this way the mind comes to perceive the truth and being of the singular entity. Since each singular entity has its own individual and intelligible form and essence, the human mind, once it is awakened by sense experience and the stimulation of the senses, is able to view through illumination the essence of the singular without having to abstract the form as in Aristotelian abstraction.

As Gordon Leff states: "Grosseteste in his theory of knowledge, therefore, is close to William of Auvergne in seeing the individual itself as the object of universal knowledge; there is no need for abstraction to reach the form, since the individual is its essence."<sup>1</sup> It is no deficiency in the singular res which requires the sense experience of a number of singulars. A deficiency in the human mind demands such experience. The process, however, through which Grosseteste achieves knowledge of the universal or intelligible form must be clearly distinguished from Aristotle's abstraction of the universal and that

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<sup>1</sup>Leff, op. cit., p. 189.

which necessitates it. The possibility of having direct knowledge of the singular and its form makes representation and abstraction less important and even unnecessary.

Grosseteste's epistemological realism follows upon and is dependent upon his understanding of being and truth. In knowing the truth it is the being and truth of the res that is known. In perceiving or apprehending the truth it is not a representation of the truth that is known, for the truth or the res itself presents itself to the knowing subject. Although it is most certainly true that in knowing intellectual or logical truth one apprehends representative truth, Grosseteste would also hold that in knowing such truth one also comes to know the truth or thing that is represented. Although the truth may not be perceived by the mind's eye at the outset, once it is perceived it is viewed in a direct and immediate fashion. The mind views res and not merely ideas representing res, for the ratio or form of the res is the res itself. As D. E. Sharp points out:

. . . indeed, Grosseteste, like Augustine, was too much of an individualist to anticipate anything less than the completest self-fulfilment from this apparent suppression of personality. Again, were the mind not active during this illumination, as M. Gilson (op. cit., p. 375) says, the result would be a science of the ideas of things rather than of the things themselves.<sup>1</sup>

The human mind or reason is at fault if such viewing or perceiving is not realized. Grosseteste does not allow for a strict representative perception either in the intelligible sphere or

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<sup>1</sup>Sharp, op. cit., pp. 33-34.

in the sensible sphere. For Grosseteste, logical truth is the adaequatio of statement and res just as intellectual truth is the adaequatio of intellect and res.

##### 5. Truth in relation to the human mind.

There can be no question but that the divine mind is foundational with respect to created truth. The divine mind and divine knowledge are in fact normative as well as descriptive. Created being and truth have their source in the divine willing and knowing. The latter is consequently also the ground of human knowledge. With respect to the human mind it is quite different. Grosseteste does speak of noetic or intellectual truth as that truth which is in the mind but the human mind is certainly not the source of truth nor the primary locus of truth.

We have seen that Augustine, Anselm, and Grosseteste all lay primary emphasis upon that truth which is the being of the supreme Truth. All other truth is given various subordinate positions. However, it would be untrue to say that Anselm and Grosseteste order and rank the subordinate created truth in the same identical fashion as Augustine. To take such a position is to fail to give proper attention to the historical and intellectual developments that transpired between the time of Augustine and that of Anselm and Grosseteste. The 'realism' that we find in the thought of Anselm and Grosseteste is not found in the same degree in Augustine's doctrine. A number of factors such as the state of Christendom, the twelfth century renaissance,

advance in theological method, the impact of Anselm's doctrine, and Grosseteste's personal history and temperament help in explaining Grosseteste's Augustinianism and accounting for differences between Augustine's doctrine and Grosseteste's doctrine.

One point at which we discover some divergence between Augustine and Grosseteste concerns the mind and the manner in which it operates in acquiring knowledge of the truth. Augustine attaches considerable importance to the mind as a locus of truth and its reflection upon itself in seeking knowledge of the truth. Grosseteste, however, does not experience to the same degree Augustine's anxiety and scepticism pertaining to the perceptible created thing and the consequent need of turning from it to the idea of it reflected in the mind. Augustine is much closer to having "a science of the ideas of things rather than of the things themselves"<sup>1</sup> than is Grosseteste. Augustine stressed the need for mind to withdraw from the external sensible world into the interior world of the mind wherein is reflected the truth which lies above the mind. This gives to Augustine's doctrine of truth an idealist or intellectualist character. The mind in Grosseteste's doctrine is focused much more on res external to the mind. The following assertion is not to be accepted therefore without question or qualification: "Grosseteste's position was founded upon St. Augustine's conception of truth as in the mind."<sup>2</sup> There is a 'realism' in Grosseteste's understanding of

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<sup>1</sup>Cf. p.567, n.1.

<sup>2</sup>Leff, op. cit., p. 187.

truth and knowledge of the truth that we do not find in Augustine's doctrine of truth. The notions of conformitas and rectitudo which figure prominently in Grosseteste's understanding of truth are not derived from Augustine. These notions manifest the influence of such as Aristotle and Anselm on Grosseteste's doctrine of truth. Augustine's doctrine of truth places greater stress on the notion of coherence and the certainty that this implies. Grosseteste does not strive for certainty with the same degree of intensity that we find in Augustine.

In the light of the above examination of Grosseteste's doctrine of truth the following judgements concerning Grosseteste's doctrine are also to be questioned and certainly cannot pass without further qualification:

. . . inasmuch as we contemplate truth in ourselves and the first principles are potentially in our souls, truth is said to dwell in the inner man. . . . In fact, because we can only attain complete knowledge by passing beyond sense-perception and intellectual apprehension, Grosseteste's theory of knowledge becomes, like that of Augustine, a metaphysics of inner experience. . . .<sup>1</sup>

Without overlooking or denying Grosseteste's profound indebtedness to Augustine it must be noted that the thought of Grosseteste has also been shaped by other forces already mentioned. One doubts whether the above statements take sufficient note of this. Just as Anselm's doctrine of truth can hardly be considered a mere reproduction of Augustine's doctrine, Grosseteste's doctrine must be evaluated and examined for what it is and on its

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<sup>1</sup>Sharp, op. cit., pp. 34-35.

own terms. Although Grosseteste highly respected his fathers in the faith and the philosophers in their subordinate place, he was not so completely dependent as to be uncritical and guilty of sheer mimicry. He utilized authoritative doctrine, reasoning, experience, and experiment in the formulation of his own doctrine and method. Grosseteste's own personality, personal life, intellectual interests and training are other significant factors that contributed to the shaping and the development of his doctrine in general and his doctrine of truth in particular. These all contribute to the uniqueness of his own thought.

## CHAPTER V

### ROBERT GROSSETESTE'S DOCTRINE OF TRUTH: RECAPITULATION AND CONCLUDING CRITIQUE

Our basic purpose and intention in this final chapter is to bring together a number of the central motifs in Grosseteste's doctrine of truth which constitute its central significance. An attempt will also be made to show in what way Grosseteste's doctrine of truth is something of a crucial juncture and stage in the understanding of truth within the Augustinian tradition, especially in view of later developments in the understanding of the nature of truth. Some of the points that will be made have already been touched on here and there throughout the preceding chapters. The very format followed in our presentation and discussion of Grosseteste's doctrine of truth was itself intended to disclose something of the manner in which different truths are ordered in Grosseteste's doctrine. The way in which different truths are ordered in Grosseteste's doctrine is <sup>of</sup> considerable significance.

In this chapter we also intend to offer some critical analysis of major aspects of Grosseteste's doctrine of truth. In the preceding chapters some critical analysis has been offered, especially in chapter one, although our primary purpose was the

setting forth of Grosseteste's understanding of truth and those doctrines of truth which especially influenced him in his understanding of truth. The critique offered in this chapter is not meant to be a complete and extensive critique of Grosseteste's doctrine of truth. Our intention is simply to offer some critical comments on certain facets of his doctrine.

## 1. Cardinal features and the central significance of Grosseteste's doctrine of truth

Our present purpose is to cite aspects of Grosseteste's doctrine of truth which make it noteworthy and deserving of attention as a crucial stage in the understanding of truth within the Augustinian tradition and mediaeval thought in general. Although the major facets of his understanding of truth have already been examined at some length we wish to bring a number of them together at this point and then offer critical commentary on some of them.

### (1.1) Cardinal features of Grosseteste's doctrine of truth

(1.1.1) Grosseteste's doctrine of truth was formulated under the full impact and influence of both Augustine's and Anselm's doctrines of truth. It could even be said Grosseteste was one of the first to develop a doctrine of truth under this twofold influence. As indicated above, at certain points Grosseteste is closer to Augustine than he is to Anselm and at other points the opposite is the case. It is especially under the impact of Augustine that Grosseteste comes to an understanding of truth as id quod est and similitudo. From Anselm he derives the notion of

rectitudo. Both Augustine and Grosseteste manifest a mystical character that is not present in Anselm. Anselm and Grosseteste both manifest a greater interest in the truth of res and propositional truth, the latter being understood especially in terms of correspondence, than does Augustine. Augustine, however, gives more attention to necessary logical truths than do Anselm and Grosseteste. In his epistemological theory Augustine stresses more than either Anselm or Grosseteste an inwardness or interiority in which the soul reflects on itself and the truth situated within the soul. Unlike Anselm, Grosseteste follows Augustine in appealing repeatedly to auctoritates. These and other similarities and contrasts have been set forth in the above chapters.

(1.1.2) In his doctrine of truth Grosseteste also utilized the notion of truth as the adaequatio rei et intellectus. In speaking of propositional truth Grosseteste states that "hoc est, quod aliqui dicunt veritatem esse 'adaequationem sermonis et rei' et 'adaequationem rei ad intellectum'."<sup>1</sup> In this same context he also makes reference to Aristotle's conception of the truth of proposition. The point to be stressed here is that although Grosseteste certainly had a place for cognitive and propositional truth he considered such truth to be subordinate to the truth of res and very much subordinate to the summa veritas. Grosseteste does not hold that 'truth' is most properly and best understood as adaequatio rei et intellectus. We have seen that

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<sup>1</sup>De Ver.; BW 134.

for Grosseteste this understanding of truth is one of several and that man's cognitive and propositional truth is always held and viewed within the context of more primordial truth. St. Thomas Aquinas, however, held that 'truth' primarily and most properly signifies adaequatio rei et intellectus.<sup>1</sup> Whereas Thomas sought to reconcile Augustine's notion of truth as id quod est with Aristotle's notion of truth,<sup>2</sup> Grosseteste makes no attempt to do so although he does utilize both notions. Grosseteste places special emphasis on those right relations (conformitas) between created res and the eternal Sermo or Verbum which expresses them. Grosseteste makes a special effort to set forth that which is the foundation of man's intellectual and propositional truth.

(1.1.3) Under the combined impact of Augustine and Anselm Grosseteste came to place considerable emphasis on the individual and singular res. It was, of course, the intelligible res and its intelligible rectitudo that was perceived by the mind. Grosseteste believed that the particular rightness or truth of the singular could be perceived directly by the mind. We have examined those factors which make possible such viewing. These include divine illumination and the intelligible character of the res that

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<sup>1</sup> Cf. his Quaestiones disputatae de veritate 1.1.2; hereafter cited as De Ver.

<sup>2</sup> De Ver. 1.1.

is viewed or intuited. However, Grosseteste also held that because of the deficiency of the human ratio and mental sight there is a need for the repeated sensing of composite singulars. Nevertheless, once the ratio is awakened it can, under divine illumination, perceive the intelligible nature and immanent form of the singular res. We noted in chapter four how Grosseteste's intuition of the immanent universal differs from Aristotelian abstraction of the universal form. Although in his inquiry into the natures and causes of physical entities and phenomena Grosseteste was especially interested in the eduction of the causal definition and demonstrative principle, he was more interested in the truth and being of singular entities, especially human beings, and the degree to which each singular being conformed to its eternal ratio in the supreme Truth. Throughout his life and his ministry, but especially in the last two decades of his life, we can observe a growing preoccupation with preaching and the salvation and pastoral care of human souls. However, as indicated in the introduction to his doctrine of truth, it would be wrong to conclude that he wholly abandoned his varied intellectual pursuits and activity as he became more involved in ecclesiastical administration, the promotion of preaching, the education of the clergy, and the care of souls.

(1.1.4) In his doctrine of truth Grosseteste also stresses the utter transcendence and predominance of the Verbum Dei and the lowly position of the human verbum and its parvitas dicentis.<sup>1</sup>

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<sup>1</sup>De Unica; BW 106.

Grosseteste, as did Augustine and Anselm, speaks of the great difficulty involved in speaking and formulating statements concerning the ineffable summa veritas.<sup>1</sup> We saw, however, that Grosseteste does not abandon the attempt to speak of the summa veritas even though he is aware of the indigent and feeble character of his efforts to do so. He did not resort to the via negativa nor did he resign himself to a mystical silence. Furthermore, we also saw that where Grosseteste speaks of truth as adaequatio he emphasizes especially the sermo interior and above all the Sermo Patris.<sup>2</sup> He says of the latter: "— Sapiencia autem et verbum, sive 'Sermo Patris' maxime adaequatur hoc modo adaequationis rei, quam dicit et loquitur."<sup>3</sup> As noted above,<sup>4</sup> 'verbum' and 'sermo' are used most properly and significantly when used to refer to the Verbum Dei or Filius Dei. The least significant usage of these words is where they are used to signify the words written and spoken aloud by man, viz., sensible words. It is evident that 'verbum' and 'sermo' have a wide usage and range of meaning. They clearly are not used in a univocal fashion.

(1.1.5) We also noted that in Grosseteste's doctrine of truth there is an ordering of truths and categories or truths which involves various levels of dependency within the created order. Only the supreme Truth has esse per se. The whole order of created truth and being is radically dependent on the supreme

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<sup>1</sup>Cf. Chapter III, (3.1.4).    <sup>2</sup>De Ver.; BW 134.    <sup>3</sup>Ibid.

<sup>4</sup>Cf. Chapter III, esp. (3.3), (5.1), (5.2.1).

Truth. The ordering of created species and beings is fixed and determined by the rationes and formae uttered eternally by the supreme Truth. Each created entity exists only through and on the basis of the perpetual support of the eternal Verbum.<sup>1</sup>

"Similiter omnis creatura ex se, si sibi relinqueretur, sicut est ex nihilo, sic relaberetur in nihilum."<sup>2</sup> It was also noted that human cognition is radically dependent on a number of pre-requisites among which the most significant are the divine speaking of intelligible res and divine illumination.<sup>3</sup> Within the created order all entities are radically dependent on the supreme Truth but the greater the propinquity of an entity to the supreme Truth the more securely it is situated in esse.

(1.1.6) In Grosseteste's doctrine of truth it is clearly evident that 'truth' is understood to signify that which is intelligible and immutable. The word 'truth' seems to be almost wholly reserved for intelligible and immutable being. However, since Grosseteste holds that such as the material elements and combinations of the same do have esse they must also be termed 'truth'. This follows from Grosseteste's belief that truth is id quod est. Nevertheless, in coming to know the truth Grosseteste stresses that we must turn from the mutable and the sensible realm of being and seek after a vision of that which is immutable and intelligible. This would seem to indicate that if sensible and

<sup>1</sup>Cf. De Ver.; BW 141-42; Chapter III, (4.1).

<sup>2</sup>De Ver.; BW 141.      <sup>3</sup>Cf. Chapter IV, 3.

mutable being as such has a place in his doctrine of truth it is clearly an inferior and subordinate place and one that is very close to non-esse.

(1.1.7) It should also be reiterated, however, that Grosseteste displays a rather consistent and keen interest in the truth of physical entities and phenomena and their causes. We cited a number of reasons for this interest of Grosseteste.<sup>1</sup> It is true that one of the primary and initial reasons for this interest in natural things was that the created order was considered to have a sacramental significance and to mirror the Creator himself. However, we have also seen that Grosseteste did not carry on his investigations in the field of natural philosophy for the purpose of having a basis on which to construct a natural theology. Grosseteste, in fact, insisted that only the Bible be used as the text in teaching theology. Moreover, in his inquiry in physics Grosseteste is especially interested in material and efficient causes, in only a few instances does he discuss final causes. Having presupposed divine illumination, authority, and faith Grosseteste did believe that a greater understanding of the created order would enhance and contribute to his understanding and praise of God and his greatness. However, he did advance beyond his predecessors in the Augustinian tradition in the value he assigned to the study of the physical world and the causes immanent in it.

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<sup>1</sup>Cf. Chapter III, (1.3).

(1.2) The central significance of Grosseteste's doctrine of truth

It is my belief that with Grosseteste's doctrine of truth we come to a crucial and critical juncture and stage in the understanding of truth within the Augustinian tradition and in mediaeval thought in general. I do not mean to say that there are no other critical stages in the development of this understanding or that Grosseteste's doctrine of truth is the singly most significant stage in this development. Anselm's doctrine of truth alone precludes making this kind of assessment of Grosseteste's doctrine. Anselm's doctrine of rectitudo and corresponding realism is a monumental contribution to the understanding of truth within the Augustinian tradition. In fact, it could be said Grosseteste's contribution to the understanding of truth was to a great extent the result of his utilization of Anselm's motifs and emphases. One wishes that Grosseteste would have taken Anselm's notions and emphases and followed through with them in a more rigorous and deliberate fashion than he did. We have in mind such factors as Anselm's notion of rectitudo, his realism, and his deliberate and positive theological method. In comparison with Anselm's theological method Grosseteste's theological method is seen to be quite deficient. This is especially apparent in Grosseteste Biblical treatises which consist almost wholly of moralistic commentary on the Biblical text. In his theological method, which involves frequent appeal to authoritates, Grosseteste has much more in common with Augustine than with Anselm.

The central significance of Grosseteste's doctrine of truth lies not simply in the fact that he restated and reaffirmed cardinal notions concerning the nature of truth but above all in the manner in which he held them and in the way in which they are interrelated and juxtaposed in his thought. In his doctrine of truth we find that he strikes a certain balance and achieves a certain equilibrium among the conceptions of truth which he adopted as well as among the different types and categories of truth extending from the summa veritas to logical truth. However, at the same time it should be pointed out that he finds and affirms a clear order among the different kinds of truth. We have already examined this order at some length. Although in seeking to express the character of cognitive and propositional truth Grosseteste utilizes the notion of adaequatio or coequatio, he constantly appeals to and emphasizes that rectitudo, conformitas, and esse on which all of man's cognitive and propositional truth depends. Grosseteste does not seize on one notion or sense of 'truth' and restrict the usage of the latter in accordance with a single sense. He not only sets forth general definitions of 'truth' but he also indicates that there is further diversification in meaning when 'truth' is actually applied to particular things: "Supradictae autem definitiones veritatis communes sunt omnibus veris. Sed se descendatur ad singula, inveniatur uniuscuiusque veritatis ratio diversificata."<sup>1</sup>

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<sup>1</sup>De Ver.; BW 142.

In saying that there is a certain balance and equilibrium in Grosseteste's doctrine of truth we mean to say in part that he desires to keep before his mind a number of different kinds of truth and allows for a diversification in the meaning of 'truth' as dictated by actual application of the word. 'Truth' is, of course, most properly and most suitably used of God himself but in rightly placing the primary emphasis on the supreme Truth Grosseteste does not want to repudiate or to lose sight of the various categories of created truth. Likewise, Grosseteste does not wish to stress propositional truth or any other kind of creaturely truth at the expense of others. Already at the time of Grosseteste and after we can observe a growing preoccupation with cognitive or intellectual truth and logical truth. Preoccupation with the latter is especially manifest in the terminist logic and the via moderna. When concepts, terms, and statements are dealt with in isolation from the things that are to be signified the terms and statements themselves tend to become normative and determinative. In dealing with terms and their properties in abstraction from the truth of things themselves it may very well happen that our understanding of the things themselves will be shaped and dictated by grammatical and logical rules. In speaking of the terminist logic Leff states: "It tended, therefore, to reduce all grammar to a series of universal laws of meaning; it was an art, a body of rules by which understanding could be reached."<sup>1</sup> In the first chapter reference was made to

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<sup>1</sup>G. Leff, Medieval Thought, p. 225.

recent doctrines of logical grammar and rules-of-usage theories. We cited certain difficulties and problems that emerge when words and terms are dealt with in abstraction from actual usage and are assumed to represent a priori senses and concepts.

In connexion with the matter of balance and order in Grosseteste's doctrine of truth we should like to compare the context and manner in which Grosseteste utilizes Anselm's notion of truth as "rectitudo mente sola perceptibilis"<sup>1</sup> with the contexts in which the latter is cited both in the Summa Philosophiae, which has been falsely attributed to Grosseteste, and in St. Thomas' first disputed question concerning truth.<sup>2</sup> I believe that in doing this something of the nature of a trend which appears to develop in the understanding of 'truth' in the thirteenth century should become apparent.

It is in discussing the truth of things as their conformity and right relations to the eternal Word and the Word itself, which is also maxime truth understood as adaequatio, that Grosseteste cites the formula of Anselm mentioned above. He then states: "Et complectitur haec definitio etiam summam veritatem, quae est rectitudo rectificans simul cum veritatibus rerum, quae sunt rectitudines rectificatae."<sup>3</sup> Here 'rectitudo' clearly signifies above all the summa veritas and then res as they are rightly related to the eternal Sermo Patris. Although at the

<sup>1</sup>De Ver. 11; AO I:191.      <sup>2</sup>De Ver. 1.1-12; esp. 1.1.

<sup>3</sup>De Ver.; BW 135.

beginning of the above discussion Grosseteste does speak of propositional truth in terms of adaequatio, where he cites Anselm's formula it is the supreme Word and the perfect adaequatio between it and the things it speaks which are uppermost in his mind. In other words, although the rectitudo to which he refers is perceptible to the mind the former is prior to and not dependent on human perception and understanding. The adaequatio and rectitudo of human speech and understanding are dependent on and subsequent to the rectitudo rectificans and the rectitudo existing between the supreme rectitudo and the things it speaks. Although man's propositional and intellectual truth certainly constitute part of the rectitudines rectificatae the former truth is not the primary or the first rectitudo. In fact, the truth of thought and statement can only be realized because of other truth, viz., truth of things and supreme Truth, which in varying ways is perceptible. It is true that both Anselm and Grosseteste discuss propositional truth rather early in their investigations into the nature of truth, however, in defending this procedure they both state that this is the kind of truth most often discussed. Anselm states: "Sed redeamus ad veritatem significationis, a qua ideo incepti, ut te a notioribus ad ignotiora perducerem."<sup>1</sup> He goes on to say that all speak about the truth of signification but few consider the truth found in the essence of things. Part of his purpose is to correct this imbalance.

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<sup>1</sup>De Ver. 9; AO I:188.

In the Summa Philosophiae we find three basic definitions of truth. Simple or incomplex truth, complex truth, and medium truth are the three categories of truth set forth. Simple truth is the "ipsa rei cuiusque entitas, id est indivisio entis et esse."<sup>1</sup> Complex truth is the "adaequatio rei et intellectus intentionem praedicati cum intentione subiecti copulantis, vel hanc ab illa disiungentis."<sup>2</sup> Medium truth "in signis est, quibus utitur intellectus ad exprimendam veritatem complexam et in rebus ipsis."<sup>3</sup> The author of the Summa also describes simple truth, complex truth, as well as uncreated truth as they are interrelated in complex truth and its four causes. "Veritas tamen complexa actu apud intellectum est, sicut in suo efficiente, in rebus ipsis sicut in materia, in veritate vero increata tanquam in forma et fine."<sup>4</sup> While the author of the Summa does speak of truth as things themselves and the "ipsa rei cuiusque entitas" it appears that there is a growing emphasis on complex truth and medium truth with simple truth being considered the material cause of complex truth. In one place in particular the truth of things is discussed<sup>5</sup> but this truth is spoken of as "adaequatio intellectus et rerum solummodo in potentia"<sup>6</sup> and the discussion itself is pretty much structured in terms of different types of propositional truths and their respective modalities. However,

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<sup>1</sup>Summa Philosophiae II.5 [19]; BW 292.      <sup>2</sup>Ibid.

<sup>3</sup>Ibid.; BW 293.      <sup>4</sup>Summa Philosophiae II.9 [23]; BW 295.

<sup>5</sup>Ibid. II.8 [22]; BW 294.      <sup>6</sup>Ibid.

and above all, what is of special concern to us at present is the point at which the Summa cites Anselm's definition of truth as "rectitudo mente sola perceptibilis."<sup>1</sup> The author states that "veritas vero complexa quandoque mente tantum seu intellectu concipitur, quandoque autem signis exprimitur."<sup>2</sup> The author goes on to say that the former, viz., the complex truth as conceived only by the mind, is according to Anselm the rightness perceptible to the mind alone.<sup>3</sup> What 'rightness' is it that the author of the Summa has in mind? One would certainly have to answer that it is an intellectual or cognitive rightness that is intended. Now while it is true that Anselm also speaks of the rightness of thought and proposition it must at the same time be kept in mind that for him the latter rightness is last in the order of truth and the cause of no other truth.<sup>4</sup> Moreover, it should also be reiterated that Anselm does not utilize the term 'adaequatio'. Anselm would also want to say that the rightness of signs and signification is along with the rightness of thought perceptible to the mind alone. Furthermore, in speaking of a conceiving of complex truth it appears that the author of the Summa is referring to a reflexive mental act in that the mind is directing its attention to its own adequation to simple truth. At this point the mind is twice removed from simple truth. I should like to conclude that the emphases, balance, and order which we find in

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<sup>1</sup>De Ver. 11; AO I.191.      <sup>2</sup>Summa Philosophiae II.7 [21]; BW 293.

<sup>3</sup>Ibid.                      <sup>4</sup>De Ver. 10.

Anselm's and Grosseteste's doctrines of truth are not sustained in the Summa Philosophiae. Although the Summa entertains the notion of simple truth the discussion concerning truth seems to be especially structured in terms of and centered around complex and medium truth.

Our purpose in directing attention to Thomas' De Veritate at this juncture is to take note of another significant context in which the above formula of Anselm, viz., 'rightness perceptible to the mind alone', is cited. We do this with the realization that Thomas did embrace an exemplarism<sup>1</sup> and does permit us to speak, although in a qualified and derivative fashion, of the truth of things.<sup>2</sup> Thomas, however, does not grant that 'verum' may be used as a simple equivalent for 'id quod est'.<sup>3</sup>

C. K. McKeon states the following concerning Thomas' usage of 'true':

Thus 'true' may be said to add to 'being' the notion of conformity to the understanding, specifically the conformity, correspondence, or adequation of thing and understanding; in this adequation the principle of truth is formally perfected.<sup>4</sup>

Thomas' rejection of 'true' as an equivalent for 'being' may be said to be due in part to his understanding of 'being' as the

<sup>1</sup>Summa Theologiae I.15.1-3; I.44.3; Summa contra Gentiles I.47-55; De Ver. 3.1-8; cited by E. Gilson, History of Christian Philosophy in the Middle Ages, p. 713 n. 110.

<sup>2</sup>De Ver. 1.1,2,4,5,8,10.

<sup>3</sup>De Ver. 1.1; cf. Augustine, Solil. II.5.8.

<sup>4</sup>McKeon, A Study of the Summa philosophiae of the Pseudo-Grosseteste, p. 36.

act of being or existence(esse). In answering one of the objections posed in the first article in the first question in De Veritate Thomas states: "1'. The reason why it is not tautological to call a being true is that something is expressed by the word true that is not expressed by the word being, and not that the two differ in reality."<sup>1</sup> Thomas holds that 'true' is predicated of an entity or thing to signify its conformity or adequation to an intellectus. He asserts that 'true' and 'being' do not have the same sense even though "in its relation to the divine intellect, nothing can be false."<sup>2</sup> He explains how this is so:

In regard to everything that is positively predicated of things or found in them, it is related to the divine in one way as the measured to its measure; for all such things come from the divine intellect's art. A thing is related in another way to the divine intellect: as a thing known is related to the knower. In this way even negations and defects are equated to the divine intellect, since God knows all these even though He does not cause them. . . . Consequently, it is clear that everything is true in its relation to the divine intellect.<sup>3</sup>

Concerning the manner in which a thing may be considered to be true Thomas also states:

A natural thing, therefore, being placed between two intellects is called true in so far as it conforms to either. It is said to be true with respect to its conformity with the divine intellect in so far as it fulfills the end to which it was ordained by the divine intellect. . . . With respect to its conformity with a human intellect,

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<sup>1</sup>De Ver. 1.1; trans. by R. W. Mulligan, Truth, Vol. 1, Questions I-IX (Chicago: Henry Regnery Company, 1952), p. 8; this translation hereafter cited as Mulligan plus page number.

<sup>2</sup>De Ver. 1.10; Mulligan 44.

<sup>3</sup>Ibid.

a thing is said to be true in so far as it is such as to cause a true estimate about itself; . . . .<sup>1</sup>

What is noteworthy in both of the above passages is that the thing is to be termed 'true' thereby signifying that it conforms to an intellect's true cognition or apprehension of the thing itself. Things are also called either 'true' or 'false' insofar as they cause either true or false apprehension of themselves. Although Thomas teaches that the human intellect is measured by natural things<sup>2</sup> and that "all knowing is produced by an assimilation of the knower to the thing known, so that assimilation is said to be the cause of knowledge,"<sup>3</sup> in stating that 'true' may signify a thing's conformity to an intellectus which has been adequated to the thing he seems to introduce a rather odd usage of 'true' and one that is open to misunderstanding. Thomas, however, does not hold that the human intellectus measures natural things nor does he hold that a thing is to be termed false whenever it is not understood and false judgements are expressed concerning it. When he speaks of a thing being false in relation to a human intellectus he has in mind a thing whose "natural appearance is likely to cause a false apprehension."<sup>4</sup>

Throughout the first question of De Veritate Thomas emphasizes that the proper locus of truth is the intellectus.<sup>5</sup> He

<sup>1</sup>De Ver. 1.2; Mulligan 11; cf. also 1.8.

<sup>2</sup>De Ver. 1.2,8.      <sup>3</sup>De Ver. 1.1; Mulligan 6.

<sup>4</sup>De Ver. 1.10; Mulligan 45.      <sup>5</sup>De Ver. 1, passim.

states that "truth, therefore, is properly and primarily in the divine intellect. In the human intellect, it exists properly but secondarily, for it exists there only because of a relation to either one of the two truths just mentioned."<sup>1</sup> He states further on: "Finally, if truth in its improper sense be taken as that by which all things are said to be true, then there are many truths for many true things, but only one truth for one true thing."<sup>2</sup> In defining truth Thomas cites Anselm's formula:

Truth is also defined in another way—according to that in which its intelligible determination is formally completed. Thus, Isaac writes: "Truth is the conformity of thing and intellect";<sup>17</sup> and Anselm: "Truth is a rectitude perceptible only by the mind."<sup>18</sup> This rectitude, of course, is said to be based on some conformity.<sup>3</sup>

It is clear that for Thomas truth is above all an intellectual rightness.<sup>4</sup> In Anselm's and Grosseteste's doctrines of truth we do not find this degree of emphasis on intellectual truth even though they both discuss intellectual and propositional truth. Thomas has taken 'rectitudo' and applied it primarily to the adaequatio of the intellect and the thing. The consequent danger in placing more and more emphasis on truth in the intellect or intellectual rightness is that the human intellect itself is apt to become the arbiter and measure of truth. Although we do not find this to be the case in Thomas' understanding of truth we do find him saying that a thing may be termed true by reason of its

<sup>1</sup>De Ver. 1.4; Mulligan 17.      <sup>2</sup>Ibid.; Mulligan 18.

<sup>3</sup>De Ver. 1.1; Mulligan 7.

<sup>4</sup>Also the case with respect to the truth in God; cf. De Ver. 1.7.

conformity to the intellect rightly apprehending the thing.<sup>1</sup>

When speaking of the adaequatio rei et intellectus not only is it important that one make explicit the particular thing and particular intellect intended but one must also indicate which of the two is the measure and which is the measured. In speaking of the adequation of the thing and the intellect it has to be made clear which of the two is the rectitudo rectificans and which is the rectitudo rectificata. It is not sufficient simply to speak of an adequation, a commensuration, or a right relation. I believe that 'rectitudo' more than 'adaequatio' signals the need for further clarification of a right relation in which the rectitudo rectificans and the rectitudo rectificata are clearly designated. In my view Grosseteste made a considerable effort to show how different truths are ordered and related to each other, in other words, to indicate with respect to a certain conformity or right relation between different entities what is the rectificans and what is the rectificata. We have seen that for Grosseteste the final ground of all rectitudines rectificatae is the supreme Truth, the supreme rectitudo rectificans. After Grosseteste the ordering of truths and the manner in which different rightnesses were interrelated were not always set forth with the same deliberate effort that we find in Grosseteste's doctrine. This factor, along with a growing utilization of the notion of adaequatio and the ever increasing emphasis on intellectual and

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<sup>1</sup>Cf. De Ver. 1.2,8,10.

propositional truth, contributed in part to the setting up of the human intellectus and ratio as the arbiter of truth. In this development the intellectus that should be measured becomes instead the measure and that which should be the rectitudo rectificata becomes the rectitudo rectificans. Since this development has been discussed at some length in the first chapter we shall not deal with it any further at this point.

## 2. Consequential deficiencies in Grosseteste's doctrine of truth

Although critical evaluation has been set forth at a number of points in the preceding chapters we here wish to bring together what may be considered to be significant deficiencies in Grosseteste's doctrine of truth. A number of the critical comments expressed with respect to Augustine's and Anselm's doctrines of truth are also applicable to Grosseteste's doctrine.

(2.1) One of the major inadequacies in Grosseteste's doctrine of truth, as well as his doctrine of God since God is the summa veritas, is that only that which is immutable and intelligible truly is and truly deserves to be termed truth. As we have already seen in connexion with Augustine's doctrine of truth,<sup>1</sup> this emphasis on immutability and consequent intelligibility is rooted in part in a certain notion of perfection which itself involves a rather restricted notion of mutability and change. Neither Augustine nor Grosseteste holds that all change

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<sup>1</sup>Chapter II, Part A. (1.3.3), (3.1).

entails evil and implies loss of being. Mutable and changing corporeal entities are lesser goods. The latter do have some being even though they are close to nonbeing. However, so long as there is change and even the possibility of change there is also the possibility of evil and a loss of being or truth. In his understanding of supreme perfection Grosseteste has no room for mutability and change since for him there can be no mutability and change which are at the same time exempt from evil or loss of being. In other words, both the possibility and the actuality of change imply the possibility of evil. Of course, insofar as Grosseteste believes that 'truth' signifies id quod est it follows that mutable and changing entities also deserve to be termed true to the extent that they exist. Grosseteste does, in fact, state that "omne namque, quod est, bonum est; et omne quod est, verum est."<sup>1</sup> However, he also states that contingent reality is corruptible truth: "Item: in futuris et contingentibus videtur esse veritas corruptibilis. Veritas autem, quae Deus est, nullo modo est corruptibilis."<sup>2</sup> We have taken note of Grosseteste's emphasis on the simple eternity of God. He speaks of this eternity as an instant that is more simple and indivisible than we can conceive. Such a simple eternity precludes any process or change. For Grosseteste time and motion are bound up together and entail the possibility of corruption. One can readily see, therefore, why Grosseteste seeks after those logical truths which are immutably

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<sup>1</sup>De Ver.; BW 136.

<sup>2</sup>De Ver.; BW 130.

true and have as their referents the immutable rationes in the eternal Verbum. 'Truth' is most properly applied to that which is wholly abstracted from time and change and even the possibility of change. Grosseteste has not really come to terms with the temporal character of the created order and its temporal entities and events.

We have already taken note of some of the difficulties and problems which Grosseteste faces when he tries to show how the immutable supreme Truth in his simple eternity is related to and present in the temporal created order. In discussing Augustine's doctrine of truth we took note of some of the consequences which resulted from certain dichotomies in his doctrine of truth. Insofar as we find these same dichotomies in Grosseteste's understanding of truth we can expect to find similar consequences. Although Grosseteste certainly focused more attention on the corporeal contingent order than did Augustine and clearly advanced beyond him in the attention that he gave to this order in terms of its immanent and inherent causes, he none the less still viewed the corporeal contingent order primarily as a sacramental and symbolic order in which eternal immutable truth was reflected. The immutable-mutable and eternity-time dichotomies were in large part responsible for this attitude to the mutable and temporal order. Grosseteste was not really in a position to come to terms with this order and to recognize the inherent value and efficacy of temporal entities and events as such. He sought the immutable and necessary truth even when he was conducting his investigation

into the causes of natural phenomena. He sought to reduce such phenomena to immutable timeless principles and universals. This is most evident in his commentary on Aristotle's Posterior Analytics.

(2.2) I believe that the above dichotomy is very much reflected in Grosseteste's epistemology. In the first part of chapter three we noted that his commentary on the Scriptures is quite moralistic in character. One would expect this kind of commentary especially in view of the fact that for Grosseteste contingent truths, which would include entities, events, and statements, are primarily means which assist us in our seeking after a visio of the immutable supreme Truth. His view of historical events and sensible phenomena is manifest in his conception of faith and the place which he gives to the senses in achieving knowledge. We saw that Grosseteste's doctrine of the knowledge of truth is very much structured in accordance with his understanding of truth itself.

We noted that he speaks of different types of scientia. The lowest form of knowledge is described as follows: "Est enim scientia communiter veritatis comprehensio, et sic sciuntur contingentia erratica."<sup>1</sup> It seems that singular and unique contingent events would fall in this category of "contingentia erratica." That such is the case is evident from the fact that the next level of scientia involves "comprehensio veritatis eorum quae semper vel frequentius uno modo se habent, et sic sciuntur aliqua

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<sup>1</sup>Comm. Post. I.2; f. 2.

contingentia naturalia. . . ."<sup>1</sup> The highest level of scientia involves the cognition of immutable truth and being. In view of Grosseteste's emphasis on the immutable character of incorruptible truth it is not surprising that the erratic contingent is ranked as low as it is. A number of other reasons were cited in chapter four. The question arises as to whether there can be a visio of contingent events, especially singular and erratic contingents. In chapter three we noted that God knows singular res.<sup>2</sup> He knows the singular essentia above all in its exemplary cause which is situated in the eternal Verbum. Grosseteste seeks to save both the contingency of the contingents viewed by God as well as the immutability of the supreme Truth by stating that God knows all things in the indivisible instant of his simple eternity. All things are viewed by God in this simple eternity. One wonders, however, how it can be said that the singular as such, in its own particular state of being, is apprehended once it is viewed in its exemplary ratio which is immutable and normative. However, Grosseteste asserts that God knows all contingents and that his knowledge is immutable. This would certainly seem to indicate that cognition of things in terms of their own singularity is not abandoned and does not cease. Nevertheless, cognition of singular and accidental qualities and states of being of singular entities certainly does not compare with the visio of the immutable rationes and essentiae of things.

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<sup>1</sup>Ibid.

<sup>2</sup>Cf. (3.4).

However, the more difficult question is whether or not the singular and unique event can become the object of intellectus and visio. In view of the fact that in intellectus and visio we view the immutable and exemplary rationes of created singular entities it would seem to follow that erratic contingent events and unique historical events cannot become the objects of intellectus and visio. Nevertheless, in discussing prophetic knowledge of future contingents<sup>1</sup> Grosseteste does state that there is a "visio essentiae eorum in mente divina, vel in mente eadem ibi vidente."<sup>2</sup> It is difficult to see how contingent events can have immutable essentiae. For in saying this we seem to be saying more than that God has immutable knowledge of contingent events. These immutable essentiae certainly cannot be normative and determinative if contingency is to be preserved within the created order itself. These immutable essentiae would certainly have to differ from the exemplary and determinative rationes of created species if creaturely contingency is to be preserved. In any event, the basic thrust of Grosseteste's epistemology is to direct our minds away from contingent and changing entities and towards the intelligible immutable truth which transcends the mind. Even though one may begin with the contingent it is soon eclipsed as one strives after the intellectus and visio of immutable truth and being. In saying this I do not mean to say that Grosseteste's doctrine of truth precludes and excludes con-

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<sup>1</sup>Cf. Chapter IV, (2.4), pp. 514-515. <sup>2</sup>Dictum 113; Brown 276.

tingency altogether. My primary intention has been to show that in his doctrine of truth mutable and contingent entities and events have been relegated to an inferior and subordinate position, and that his doctrine of knowledge of the truth reflects his understanding of truth.

It can also be said that Grosseteste's understanding of faith is very much affected by and determined by his understanding of truth.<sup>1</sup> The deficiency in his conception of faith is due to a considerable extent to his understanding of truth and his epistemological beliefs. In the statements of Grosseteste concerning faith which I have examined the Biblical conception of faith is certainly not dominant or central. The understanding of faith as personal trust, faithfulness, steadfastness, the acceptance of the grace of God, which we find in the Scriptures, is very little in evidence in the passages which I have examined. I have not examined Grosseteste's Biblical commentaries and my present assessment must be considered therefore as having a qualified and tentative character. However, in view of the fact that Grosseteste's thought is marked by a general consistency it could be said that the evaluation that I offer here has some validity. ~~Grosseteste's thought is marked by a general consistency it could be said that the evaluation that I offer here has some validity.~~ Grosseteste states that fides is "cum assensu cogitatio: et sic definita fides est et scientiae genus: quod

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<sup>1</sup>Cf. Chapter IV, (2.2).

enim scio, cum assensu cogito."<sup>1</sup> In my view the central deficiency in Grosseteste's conception of faith is that he views it pretty much as a preliminary mode of cognition which is required because of the condition of man's mind and soul. Faith is the acceptance on the basis of auctoritas of certain statements or teachings as being true. However, as one achieves scientia, intellectus, and finally a visio of that which is taught by the auctoritas, one no longer has to rely on faith and authority. Although Grosseteste speaks of faith as a scientiae genus it clearly does not consider it to be the highest form of cognition. One must advance to higher levels of cognition. However, as in the case cited above regarding prophetic knowledge of future contingents, the question arises as to the possibility of intellectus and visio of contingent entities and events which have been believed on the basis of authority. The same question arises, of course, with respect to contingents perceived directly by the senses apart from any authority. The question is whether or not one can come to know contingents in the same way that one can achieve an understanding and vision of immutable rationes and essentiae. It does not seem that Grosseteste has adequately distinguished between those beliefs involving per se connexions between their terms and those beliefs which refer to contingent events, such as historical events, and whose terms consequently have no per se connexions. It would

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<sup>1</sup>Dictum 129; Brown 281.

seem that one could maintain this kind of distinction while at the same time acquiring a fuller and deeper understanding of both the necessary beliefs and the contingent beliefs and that which is signified by both categories. Lest it be thought that for Grosseteste faith is nothing more than a preliminary step in an ordo cognoscendi culminating in an intellectual vision it should be pointed out that faith is also for Grosseteste an essential prerequisite of amor, justitia, justificatio, reparatio, and final beatitudo.<sup>1</sup> The above discussion does bring to mind the following Biblical text: "And what is faith? Faith gives substance to our hopes, and makes us certain of realities we do not see."<sup>2</sup>

(2.3) I believe that Grosseteste's understanding of truth also suffers from a lack of ample clarification and explication of truth understood as correspondence. We saw that he used such terms as 'conformitas', 'similitudo', 'adaequatio', and 'rectitudo' when speaking of truth as correspondence. Although Grosseteste, like Anselm, clearly believed that the mind could perceive states of affairs involving correspondence he does not attempt to delineate for us the exact character of this correspondence. The question, of course, is whether such is even possible. We saw earlier that L. Wittgenstein introduced a metaphysical subject

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<sup>1</sup>Cf. Chapter IV, (2.2) here Grosseteste's conception of faith is discussed more fully.

<sup>2</sup>Hebrews 11:1, Revised Standard Version.

which only sees but does not think or speak.<sup>1</sup> Wittgenstein's point was that if this subject could describe how the picture pictures the fact pictured we would be involved in an infinite regress. I am not suggesting at this point that Grosseteste offers us any such explanation although it is clear that for him a particular instance of rightness is more readily perceived by the mind than described in words. However, as did both Wittgenstein and M. Heidegger,<sup>2</sup> Grosseteste did make certain predications concerning the character of correspondence. He makes clear that truth understood as correspondence is an intelligible correspondence. It follows, therefore, that that which is rightly related and that to which it corresponds are both intelligible. When Grosseteste speaks of truth as correspondence he does not have in mind a physical or spatial commensuration. Neither does Grosseteste teach that because a thing is rightly related to another thing ('thing' is here used in a broad sense) that the former must share in the essence or nature of the latter. However, in the case of the perfect similitudo between the eternal Word or Son and the Father we do have an exception to the above statement. In this latter case, however, one may want to ask just what sense 'similitudo' can have since we are dealing a single perfectly simple essentia. In other words, the question may be asked whether it makes sense to speak of a similitudo

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<sup>1</sup>Cf. Chapter I, (3.4.2).

<sup>2</sup>Cf. Chapter I, (4.2); Heidegger pursues in part a via negativa.

where we are dealing with one perfectly simple essentia.

Grosseteste follows Anselm in saying that a thing is right and true when it fulfils its debitum and does what it ought to do. Here one can observe a moving away from the notions of commensuration and adequation. We have seen, therefore, that Grosseteste does attempt to say something concerning the character of correspondence. Nevertheless, having said that this correspondence or adequation is intelligible one is still in a quandry and one still wonders just what it is that constitutes an intelligible rightness or correspondence. We saw in chapter one how the difficulty involved in speaking of the agreement between statement and thing prompted Heidegger to turn away from the notions of agreement and conformity and in the direction of such notions as disclosure and revealment.

In Grosseteste's doctrine of truth we do not find the differentiation of different kinds of rightnesses that we find in Anselm's doctrine of truth. In Anselm's De Veritate several different categories or types of things are discussed in terms of their truth or rightness. He speaks of the truth of thoughts, the truth of the will, actions, senses, things, statements, as well as the supreme Truth. Grosseteste does not offer us the same degree of clarification concerning the different ways in which different things are right or true. We have seen, however, that Grosseteste does make some basic distinctions, for example, he speaks of the twofold manner in which propositions are said to be true, the twofold truth or first and second plenitude of

being of things, and in his De Libero Arbitrio he speaks of the rightness of the will. He also makes the key distinction between the rectitudo rectificans and the rectitudo rectificata. Nevertheless, Grosseteste could have offered further clarification and delineation concerning the ways in which different things are true or right, especially creaturely entities, actions, and phenomena. He does, of course, cite common definitions of truth which may be applied to different things and which are diversified through application to particulars.

A special difficulty that arises in connexion with Grosseteste's understanding of truth as correspondence involves the matter of the verification and falsification of cognitive and propositional truth. Related to this is the question as to the possibility of maintaining his epistemological realism in the face of his understanding of truth as correspondence and conformity between things.

The correspondence or conformity which is our present concern is not that which arises from created entities being rightly related to their exemplary rationes in the mind of God. Granted the possibility of mental perception it is conceivable that the mind could perceive both an intelligible measure and an intelligible entity which is rightly measured by that measure. Such a mental operation would be analogous to the operation in sense perception in which a sensible entity is judged in accordance with a sensible measure. By juxtaposing a physical rule or measure and a physical entity to which the rule is applicable one

may perceive whether or not the measured entity is right and corresponds to the rule. However, even this operation involves prior assumptions concerning the rule to be used and the range of its applicability. There is also the further belief that one is dealing with more than simply one's own sensory experiences and sensations.

The adequation of proposition and thing (state of affairs) is more related to our immediate concern although it is not our major concern. With respect to propositional truth or rightness, which is what Grosseteste has in mind when he speaks of the sermo exterior, a number of problems arise, some of which have been cited previously. For example, if it is said that this particular statement agrees with or corresponds with this particular state of affairs one may want to ask in what manner the statement agrees with the state of affairs or one may ask wherein lies the correspondence between the two. However, it is not the character of this adequation and correspondence that primarily concerns us at present nor is it the question as to possibility of the verification and falsification of statements. For the question as to the possibility of such verification and falsification must give way to a prior question, viz., the question as to the possibility of ascertaining whether or not a given thought or judgement is true.

The question we now raise is one that we also posed in connexion with Anselm's doctrine of truth.<sup>1</sup> Assuming that one can

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<sup>1</sup>Cf. Chapter II, Part B., (3.4.1).

think or opine that which is the case, as well as think or opine that which is not the case, the question may be asked whether or not it is possible for one to know which of his thoughts do correspond to that which is the case and which do not. If one only has access to his own thoughts then it may be asked whether he can ever know whether or not his thoughts do correspond to that which is the case. B. Russell refers to this difficulty:

By this partly—and partly by the feeling that, if truth consists in a correspondence of thought with something outside thought, thought can never know when truth has been attained—many philosophers have been led to try to find some definition of truth which shall not consist in relation to something wholly outside belief. The most important attempt at a definition of this sort is the theory that truth consists in coherence.<sup>1</sup>

With respect to Grosseteste we may want to ask how it is possible for him to adhere to truth understood in terms of correspondence and also to maintain that it is possible for us to know that certain thoughts and statements do correspond to actual states of affairs. In chapter four we examined Grosseteste's teaching regarding principles and means whereby we come to have knowledge of things.<sup>2</sup> We have seen that Grosseteste teaches that there is a mental sight and a mental perception (aspectus, intellectus, visio, contueri, conspicere.) This perceiving and viewing are possible because of divine illumination and the intelligibility of truth. However, we also saw that there are other prerequisites on which this mental perception depends. Grosseteste

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<sup>1</sup>Russell, The Problems of Philosophy, pp. 121-22.

<sup>2</sup>Chapter IV, 3.

teaches that our mental sight may be defective and we consequently cannot perceive the intelligible truth or we perceive it only in part or in a distorted fashion. It is at this point that a major question arises. Assuming that we do not always perceive the truth aright the question may be asked as to how we determine in a particular instance whether or not we perceive correctly. It should also be pointed out that in asking this question we have already assumed that the mind does indeed perceive some intelligible object. Even if it is granted that a number of beliefs are required one is still in need of criteria on the basis of which he can determine whether or not he does in fact perceive some extra-mental state of affairs. Moreover, assuming that one can determine that he actually perceives some intelligible entity, how does one come to know the precise character of his perception? Is it not possible that the mind simply reflects on phantasmata of its own making? With respect to the rational soul Grosseteste states: "Intelligit enim non sine phantasmate, quod est actus virtutis sensitivae."<sup>1</sup> Grosseteste clearly does not teach that the soul's perception terminates in a phantasma. But how does one know this? Can one assume a position or stance outside himself, the meaning of which is far from being obvious or self-evident, and then compare his mental percept with that which is perceived? Can one perceive and know more than one perceives and knows? As intimated in our discussion of Anselm's doctrine of

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<sup>1</sup>De Statu; BW 125.

truth,<sup>1</sup> to affirm that one apprehends only media, phantasms, the images and likenesses of things represented, is really to affirm that which is impossible, viz., that one knows more than one knows.

Inasmuch as Grosseteste gives little attention to the kinds of questions and difficulties that we have introduced above we can for the most part only surmise what his response to them would be. It is largely because of his own beliefs and realism<sup>2</sup> that many of these difficult questions do not arise in Grosseteste's mind and thought. I do not mean to say that Grosseteste never entertained any of the questions cited above. However, because of his belief in such factors as divine illumination, exemplarism, the intelligibility of truth, human faculties of cognition, the possibility of intellectus and visio, fides, gratia iuvans, autoritas, and the limited but valuable service of the senses, the above questions and difficulties did not attain critical proportions or figure prominently in his thought. This is not to say that all of his beliefs are strictly and altogether compatible and perfectly coherent. In addition to the other ways in which he conceived of truth he understood truth in terms of correspondence. At the same time he believed that the mind of man could perceive the truth and being of things and advance to ever higher levels of cognition and finally arrive at the visio of the supreme Truth. He also teaches that the mind does entertain false notions

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<sup>1</sup>Chapter II, Part B., (3.4.2).      <sup>2</sup>Chapter IV, 4.

and at one point speaks of three causes of error.<sup>1</sup> Grosseteste, on the one hand, speaks of defective mental sight, error, and ignorance, and yet, on the other hand, he states that "intellectus, enim, et scientia apprehendunt res in puritate essentiae suae, sicut in seipsis sunt."<sup>2</sup> How does one know when he has some to apprehend things in the purity of their essentia?

Grosseteste believes that as one achieves ever higher levels of cognition<sup>3</sup> it becomes more and more evident to one's mind that one indeed perceives that which is, viz., the immutable truth. Grosseteste speaks of that scientia which is superior to demonstrated scientia. This superior scientia seems to be similar to the perception of the necessary connexions found in the syllogism: "Et cognoscitur necessitas syllogismi cum videtur identitas utriusque extremitatis cum medio termino."<sup>4</sup> In other words, Grosseteste believes that the formae, essentiae, and rationes, which constitute immutable truth, have a self-evident character and that this may be perceived and recognized directly and immediately. It seems that the manner in which this truth is perceived is for Grosseteste analogous to the manner in which the truth of necessary logical truths is perceived and recognized. Here truth as coherence appears to be dominant and determinative. Grosseteste, of course, does not view necessary propositional truths as analytic statements.<sup>5</sup> However, the above mode of recognition of truth and

<sup>1</sup>De Art. Lib.; BW 1; cf. also Chapter III, (1.1.3).

<sup>2</sup>Comm. Post. I.19; f. 27.

<sup>3</sup>Cf. Chapter IV, 2.

<sup>4</sup>Comm. Post. I.9; f. 10.

<sup>5</sup>Cf. Chapter III, (5.2.2).

the understanding of truth in terms of strict coherence do not really answer the question as to how we can come to know for certain that we do in fact perceive contingent truths. In the latter case the test of coherence may be applied but we cannot expect to find the strict coherence cited above and the certainty which it entails. It should be reiterated that for Grosseteste contingent intelligible truth is also perceptible to the mind. Nevertheless, if the possibility of the perception of contingent truth and the possibility of error are admitted, the question may still be asked as to how we know in a given instance whether or not we are actually perceiving contingent truth. Grosseteste would respond by saying that divine illumination also gives to contingent truth a luminous quality and something of a self-evident character which the mind that is not bound to corporeal images or phantasms can perceive.

In connexion with the mind's direct viewing of intelligible truth it may be asked whether or not truth as correspondence can at the same time be maintained. In other words, what is it that corresponds with the intelligible res where the res itself is directly perceived? On the other hand, if in some way my intellectus corresponds to the intelligible res, then how can I at the same time say that I directly perceive the res itself? Assuming that I have a mental 'percept' of an intelligible res, can I perceive more than I perceive so that I can be aware of having this 'percept'? However, if I have no immediate perception of the res how can I ever know that there is something in my mind which corresponds to the res? Furthermore, if there is no factor of correspondence involved in my mental perception of intelligible res

how can I ever be in error? To be in error a lack of correspondence of some kind must clearly be possible. If the mental perception of intelligible res involves no element of correspondence it would seem to follow that the mind must always perceive things just as they are. These are the kinds of critical questions that can be raised in connexion with Grosseteste's doctrine of truth. Although he deals with a number of questions in formulating his doctrine of truth he does not really entertain the kinds of questions which we have raised. Nevertheless, it could be said that his doctrine of truth does prompt such questions.

(2.4) Grosseteste's doctrine of truth could also be said to be deficient to the extent that the Biblical conceptions of truth have not been incorporated into and have not shaped his understanding of truth. I certainly do not mean to say that the Biblical conceptions of truth made no impact on his thought concerning truth. It should be clearly apparent from our exposition of his doctrine that such words as 'veritas', 'verum', 'essentia', and their equivalents and cognate terms, are considered to be far most suitably applied to God the Father and his eternal Word. The application of these words is for Grosseteste dictated by the Scriptures. In fact, at the very beginning of his De Veritate he cites John 14:6: "Ergo sum via veritas et vita". Hic ipsa Veritas dicit se esse veritatem."<sup>1</sup> Further on he cites John 16:13: "Sed e contra in Evangelio legitur: 'Ipse docebit

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<sup>1</sup>De Ver.; BW 130.

vos omnem veritatem'."<sup>1</sup> Grosseteste also cites John 3:21: "Item scriptum est in Evangelio: 'Qui facit veritatem venit ad lucem'."<sup>2</sup> However, in his De Veritate he offers us no exposition of these texts. They are cited in connexion with the following question: "Unde dubitari non immerito potest, an sit aliqua alia veritas, an nulla sit alia ab ipsa summa veritate?"<sup>3</sup>

One wishes that in his De Veritate and in his doctrine of truth in general that Grosseteste would have incorporated more of the Biblical notions and teaching signified by such terms as 'ἀλήθεια', 'ἀληθής', 'ἀληθεύειν', 'Παροιμία', and related terms. Having examined Grosseteste's doctrine of truth it has become apparent that even though he believes and states that 'veritas', 'verum', and related terms are above all to be used of God and his eternal Word, nevertheless, much of their meaning is derived more from Neoplatonism than from the Scriptures. His stress on the simple eternity and immutability of God, his hierarchy of being, his doctrine of light, his exemplarism, his emphasis on intelligibility, and other related notions clearly show the considerable impact that Neoplatonic tenets had on his thought. Nevertheless, a great gulf exists between Grosseteste's Christian beliefs and the tenets of Neoplatonism. One has only to cite Grosseteste's belief in the libertas voluntatis of the supreme Truth, creation, and the ontological gap between the Creator and the creature to see how great

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<sup>1</sup>Ibid.      <sup>2</sup>De Ver.; BW 131.      <sup>3</sup>De Ver.; BW 130.

that gulf really is. While keeping this gulf in mind, it must still be said, however, that Grosseteste's doctrine of God and understanding of the nature of God are too much determined and shaped by metaphysical and ontological notions and categories derived largely from Neoplatonism. Consequently, even though he frequently cites the Scriptures, much of the Biblical content and teaching is blocked out by philosophical notions and categories which he had adopted.



SIGLA

- AO Schmitt, F. S. (ed.) S. Anselmi Opera Omnia.
- BA Bibliothèque Augustinienne, Oeuvres De Saint Augustin.
- BW Baur, L. (ed.) Die philosophischen Werke des Robert Grosseteste.
- CCSL Corpus Christianorum Series Latina.
- CSEL Corpus Scriptorum Ecclesiasticorum Latinorum.
- PA Przywara, R. (arr.) An Augustine Synthesis.
- PL Migne, J. P. (ed.) Patrologiae Cursus Completus Series Latina.
- RG Callus, D. A. (ed.) Robert Grosseteste-Scholar and Bishop.

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Explanatory note—The primary sources cited in this part of the bibliography are limited to the thinkers which figure most prominently in the thesis. In the General Bibliography primary sources which figure less prominently in the thesis are cited along with secondary sources. This division of primary sources does not mean that those cited in the General Bibliography are in themselves of lesser import than the others. Secondary sources have not been divided and listed in accordance with particular topics and thinkers discussed in the thesis. These distinctions are made with the understanding that a certain work or text may conceivably be considered in certain respects a primary source and in other respects a secondary source. A single work may be in part a primary source and in part a secondary source.

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\*This list of editions and translations is not meant to be exhaustive. The sources cited here are those utilized in the thesis and specifically in connexion with the research into Augustine's doctrine of truth. In the editions cited only those volumes which have been consulted and examined have been singled out.

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	Page
1. <u>De Artibus Liberalibus</u>	1
2. <u>De Generatione Sonorum</u>	7
3. <u>De Sphaera</u>	10
4. <u>De Generatione Stellarum</u>	32
5. <u>De Cometis</u>	36
6. <u>De Impressionibus Aëris seu de Prognosticatione</u>	41

7.	<u>De Luce seu de Inchoatione Formarum</u>	51
8.	<u>Quod Homo sit Minor Mundus</u>	59
9.	<u>De Lineis, Angulis et Figuris seu de Fractionibus et Reflexionibus Radiorum</u>	59
10.	<u>De Natura Locorum</u>	65
11.	<u>De Iride seu de Iride et Speculo</u>	72
12.	<u>De Colore</u>	78
13.	<u>De Calore Solis</u>	79
14.	<u>De Differentiis Localibus</u>	84
15.	<u>De Impressionibus Elementorum</u>	87
16.	<u>De Motu Corporali et Luce</u>	90
17.	<u>De Motu Supercaelestium</u>	92
18.	<u>De Finitate Motus et Temporis</u>	101
19.	<u>De Unica Forma Omnium</u>	106
20.	<u>De Intelligentiis</u>	112
21.	<u>De Statu Causarum</u>	120
22.	<u>De Potentia et Actu</u>	126
23.	<u>De Veritate</u>	130
24.	<u>De Veritate Propositionis</u>	143
25.	<u>De Scientia Dei</u>	145
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27.	<u>De Libero Arbitrio (also recensio altera)</u>	150

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	Page
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<u>Dictum 129</u>	281
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