The Truth, the Whole Truth, and Nothing but the Truth: Robert Grosseteste on Universals (and the Posterior Analytics)

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The reintroduction of Aristotle’s Analytics to the Latin West—in particular, the reintroduction of the Posterior Analytics—forever altered the course of medieval epistemological discussions. In the memorable words of Jonathan Barnes, “Aristotle’s sweet Analytics ravished generations of European scholars and scientists. The Prior Analytics displayed the pure discipline of logic, well-formed, elegant, seductive; the Posterior Analytics beckoned to deeper mysteries, offering a sure path to scientific progress, clear and imperious in its injunctions, delicious in its rigor.” Although the Analytics fell decidedly from grace in later centuries, the sophisticated account of human cognition developed in the Posterior Analytics appealed so strongly to thirteenth-century European scholars that it became one of the two central theories of knowledge advocated in the later Middle Ages.

Robert Grosseteste’s Commentarius in Posteriorum Analyticorum Libro (hereafter, CPA), written in the 1220s, is most likely the first complete Latin commentary on the Posterior Analytics. As such, it offers us unique insight into the crucial period...

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1 Both the Prior and the Posterior Analytics were available in Latin by the mid-twelfth century. The Posterior Analytics [APo], however, was not widely studied or commented on until the 1220s. See John Marenbon’s Later Medieval Philosophy (1150–1350) (London: Routledge, 1993), 36, 56–57, for a further discussion of this.


3 All references to Grosseteste’s commentary and translations of the Latin text are to Pietro Rossi’s critical edition: Commentarius in Posteriorum Analyticorum Libros (Firenze: Leo s. Olschki, 1981). Citation is by book and chapter number and, parenthetically, by line numbers; all translations are my own. The exact date of the commentary’s composition is unclear; James McEvoy dates it to the late 1220s—most likely, to around 1228—while Richard Southern argues for a slightly earlier date (1220–1225). For a detailed discussion of this topic, see McEvoy’s “The Chronology of Robert Grosseteste’s Writings on Nature and Natural Philosophy,” Speculum 58 (1983): 636–43; and Southern’s Robert Grosseteste. The Growth of an English Mind (Oxford: Clarendon Press, 1986), 131–33.

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in which the work was gaining an audience in the Latin West. The story of its later reception is well-known: as the thirteenth century wore on, Aristotle’s account of human cognition was generally set in opposition to the Augustinian-influenced theory of divine illumination that was *de rigueur* in the early thirteenth century, with Franciscans such as Roger Bacon, Matthew of Aquasparta, and John Pecham championing increasingly complex illuminationist theories and many others, such as the Dominican Thomas Aquinas, advocating more empirical, Aristotelian positions. Although common consensus holds that this pattern of opposition was set already in Grosseteste’s *CPA*, I will argue that the story of the *Posterior Analytics*’s early reception is, in fact, quite different. In particular, I maintain that, rather than seeing himself as forced to choose between his earlier theory of divine illumination and the “new” Aristotelian epistemology, Grosseteste is perfectly content to blend and bring together the diverse elements of these systems and to present a consciously synthetic rather than adversarial picture of these differing accounts of human cognition.

### I. INCORRUPTIBLE UNIVERSALS, CORRUPTIBLE PARTICULARS, AND NECESSARY TRUTHS

The question of whether a single account can coherently include the central claims of both these epistemological systems takes on especially sharp focus with respect to universals, the proper objects of human knowledge. In particular, Aristotle famously holds that universals do not exist independent from the individuals that instantiate them, whereas theories of divine illumination maintain that universals exist in the mind of God. This has obvious consequences for the objects of human intellective cognition: are they universals abstracted by the intellect from material particulars or God’s ideas?

The apparent incompatibility of these two views is posed starkly for Grosseteste in *CPA* I.7 by a puzzle concerning Aristotle’s claim that every demonstration is based on what is incorruptible (*APo* 75b22–23). The puzzle, as Grosseteste sees it, originates with the conjunction of the fact that the conclusions of successful demonstrative arguments are eternally necessary truths (such as “All human beings are mortal” and “All turtles are reptiles”) with Aristotle’s belief that universals do not exist apart from the particulars in which they inhere (as *human being* is found in Socrates the Athenian and *turtle* is found in Pedro the snapping turtle). How can the universals that are the subjects of these demonstrative arguments be incorruptible if the individuals who instantiate these universals are corruptible?

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2. It is important in this context to distinguish—as Grosseteste does—between “complex, experiential” universals, such as “All human beings are mortal,” and “simple” universals, such as *human being* and *fruit*. For a detailed discussion of this topic, see Marrone, *William of Auvergne and Robert Grosseteste: New Ideas of Truth in the Early Thirteenth Century* [*William of Auvergne and Robert Grosseteste*] (Princeton: Princeton University Press, 1983), chs. 6 and 7.

3. In Grosseteste’s own words, the issue is “how universals are incorruptible when individuals are corruptible” (96–98), given Aristotle’s claim in the *Categories* that “It is impossible for anything to remain when the primary things [particular substances] no longer exist” (e.g., *Categories* 7b28–31).
Here Aristotelians appear to be faced with a genuine difficulty, whereas Augustinians can simply deny the problem. On standard theories of divine illumination, the proper referent of human being in “All human beings are mortal” is the universal that is eternally present in the divine essence. This universal is clearly unaffected by the perishing of Socrates. It would, in fact, be unaffected by the extinction of the entire human race, in the same way that it pre-existed the creation of individual human beings.7

In discussing this puzzle, then, it seems that Grosseteste must come down on one side of the debate or the other; indeed, this is how modern scholars have typically interpreted the subsequent detailed discussion in CPA I.7. These same scholars have, however, reached conflicting conclusions about which side Grosseteste champions. Etienne Gilson, for instance, remarks that Grosseteste’s thought in this passage “moves on a level that is entirely Augustinian and totally foreign to Aristotelianism”—a sentiment advocated by Lawrence Lynch and, in a more qualified form, James McEvoy and John Longeway8—while Steven Marrone, by contrast, argues at length that Grosseteste abandons his earlier theory of divine illumination in the CPA in order to embrace a purely Aristotelian account.9 In what follows, I reexamine the crucial discussion in I.7 (100–45), arguing that Grosseteste believes each of the various elements of his complicated account of universals is necessary in order to tell the full story of human knowledge.10 Aristotelian universals (the ordinary subjects of demonstrative science) are, on his account, one important aspect of an epistemic framework that also includes Platonic Ideas, Neoplatonic emanation, and divine illumination.11

7This position, in turn, sparked an ongoing medieval discussion concerning the plurality of eternal beings: universals such as “turtle” were said to be eternal, but were not identical with either individual turtles or with God. For a detailed discussion of this topic, see Neil Lewis, “The Problem of a Plurality of Eternal Beings in Robert Grosseteste,” Medieval Philosophy and Theology 7 (1998): 17–38.


11Grosseteste introduces his theory of illumination at the outset of the first chapter of the CPA with a clear reference to Augustine’s De magistro (12.39–40): “Neither the one who produces an external
The key to Grosseteste’s account of universals is the distinction he draws between the different kinds of cognizing principles available to human beings. As we will see, each kind of principle correlates to a different class of metaphysical truths: access to the highest level of these principles entails access to the truths of all actual and possible natures, including God’s, while access to the next level entails access to the truths of all actual natures, not including God’s; access to the third level entails access to truths just about the natures of things in the material world, but including their causal ideas, and access to the final level or levels entails access to truths about the natures of things in the material world *simpliciter*. Presented in the context of commenting on Aristotle’s attempt to explain what knowledge is and how it is possible, Grosseteste’s explication of these principles should be read as an attempt to lay out the fundamental components of what human beings require for genuine, philosophically adequate knowledge. As we will see, Grosseteste holds that only the last three sorts of principle can be reached through empirical means; thus, the prospects for an empirically-grounded grasp of concepts is sharply limited, but more so in some domains than in others. At the same time, he maintains that our current, fallen human intellects cannot generally receive illumination directly from God and must, therefore, rely on abstraction from experience; thus, the prospects of our acquiring universal concepts directly from God—although an important part of the story of human cognition—are also sharply limited. A variety of levels of cognizing principles are necessary, then, in order to provide a complete account of human knowledge.

Grosseteste begins his detailed discussion of the different sorts of universals available to human intellects with the claim that “universals are principles of cognizing [*principia cognoscendi*]” (100). Although the phrase ‘principles of cognizing’ might be taken to refer to dispositions an agent possesses that enable her to engage in intellection—the means by which the agent cognizes—Grosseteste himself consistently equates principles of cognition with the objects of cognition throughout I.7. Such objects count as *principia cognoscendi* because they serve a primary role in demonstrative science and, thus, human cognition: universals such as *turtle* or *human being* for instance, count as principles of cognition insofar as they form the essential components of necessary truths such as “No turtle is a human being.”

The paradigmatic sort of cognizing principle relates directly to God’s own uncreated and eternal ideas:

Universals are principles of cognition, and for the intellect that is pure and separated from phantasms—able to contemplate the first light, which is the first cause—the principles of cognizing are the uncreated ideas (*rationes*) of things that exist from sound nor the external visible writing in a text teaches—these two things merely move and stimulate [the learner]. The true teacher, however, is the one who internally illumines the mind and reveals the truth” (33–36). This provides the context in which Grosseteste subsequently lays out and explicates Aristotle’s claims in the *Posterior Analytics.*

As I discuss below, there is some debate in the literature concerning whether there are four or five sorts of principles.
Grosseteste goes on to claim, moreover, that these universals serve not only as principles of cognizing for such intellects, but also as principles of being:

These [principles] are what Plato called Ideas and the archetypal world, and they are (according to him) genera and species, and principles of being [principia essendi] as much as of cognizing, since when the pure intellect is able to fix its sight on them, it cognizes created things in them as truly and clearly as possible—and not only created things, but also the first light itself in which it cognizes other things. It is clear that these universals are completely incorruptible. (106–11)

Although Grosseteste does not elaborate on the nature of principia essendi, his use of the causal connective here indicates that they relate to the true essences of created things; they appear to count as principles of being as well as of cognizing precisely because they correlate to the truest and clearest understanding of created things (and of the first light itself).\textsuperscript{13} Employing Neoplatonic illuminationist language to make its point, this passage describes God, the first light, as containing the uncreated ideas of all created things and as illuminating purified intellects.\textsuperscript{14}

Although these principles ground the best and most profound sort of knowledge possible, Grosseteste maintains that this type of universal is not the sort involved in demonstrative science (and, thus, not the subject of human knowledge), for in this life the vast majority of human beings cannot attain the state of separation from the physical world and sensible phantasms that is a necessary precondition for accessing these principia cognoscendi et essendi.\textsuperscript{15} Grosseteste himself makes this point explicitly in CPA I.15, where he writes: “although uncreated ideas and definitions [rationes] exist from eternity in the divine mind, these ideas do not pertain at all to the sort of thinking [ratiocinationem] in which one thing is predicated of another” (146–48). The universals referred to by such propositions as “No human being is a turtle” are not, then, the uncreated universals present in the divine essence.

\textsuperscript{13}This reading is supported by the fact that—as I discuss below—the final sort of cognizing principle Grosseteste considers in this passage does not count as a principle of being precisely because it involves cognition only of the accidents that follow from the true essences of created things and not of the essences themselves.

\textsuperscript{14}Grosseteste is not explicit in this passage that the intellects to which he refers are specifically human intellects; nevertheless, the context of the commentary, as well as remarks he makes throughout the rest of the CPA, clearly indicate that his interest here specifically concerns the process of human cognition and what universals are accessible to human intellects.

\textsuperscript{15}See CPA I.14 and I.17–18 for Grosseteste’s explanation of how union with corrupt, corporeal bodies interferes with our intellects’ cognizing. However, in works such as the Hexameron and his commentaries on the Divine Names and the Celestial Hierarchy, Grosseteste allows that certain human beings have attained direct vision of the first light during earthly life, he indicates that the number of people who have achieved this status is extremely small—including perhaps only Paul, Moses, and the Virgin Mary—and that the duration of this vision was, in each case, extremely brief. For discussion of these cases, see, e.g., Simon Oliver, “Robert Grosseteste on Light, Truth, and Experimentum,” Vivarium 42 (2004): 151–80, at 163n36; McEvoy, The Philosophy of Robert Grosseteste, 325–26; and Marrone, The Light of Thy Countenance, vol. 1, 65 and esp. n20.
Grosseteste may rule out the possibility that human beings directly cognize the uncreated ideas in the mind of God, but in a provocative passage that raises a number of questions for his account of universals, he considers seriously the possibility that they cognize those ideas indirectly, as representations of created things in the mind of the intelligence(s):

[\text{In the created light, which is an intelligence, there is a cognition and representation \textit{[description]} of the created things that follow after it \textit{[in the order of creation]. And the human intellect that is not purified to the point where it can directly see the first light often receives irradiation from the created light \textit{[which is an intelligence], and in those representations which are in the intelligence it cognizes the things that follow after it \textit{[res posteriors], of which these representations are formal exemplars. For the cognitions of the things that follow after it \textit{[which are cognitions in the very mind of the intelligence] are exemplar forms and also the causal ideas of the things which are subsequently to be created. For corporeal species were brought into being by the power of the first cause, through the mediating help of the intelligences. Therefore, these created ideas are principles of cognizing for the intellect irradiated by them and—for such an intellect—they are genera and species; and it is clear that these universals are also incorruptible. (112–24)}]}

In an illuminationist, Neoplatonic framework, the intelligences reflect the true light of God, as the moon reflects the light of the sun.\textsuperscript{16} Human intellects irradiated by such intelligences would thus have access to principles of cognizing the “formal exemplars” of all created things—without seeing the first light itself in the process (in the same way that one cannot see the sun by looking at the moon’s irradiated light). Grosseteste’s description here of the nature of this irradiating intelligence is frustratingly vague, however, given that the historical context of the CPA means that Grosseteste would have been familiar with both the Neoplatonic description of the angels as intelligences and Avicenna’s view of the agent intellect as a separate intelligence responsible for human knowledge—positions that were conflated by earlier authors such as Gundisalvus and John Blund, but which are developed later in ways that contain potentially important differences for how best to understand the nature of the cognizing principles Grosseteste refers to here.\textsuperscript{17} As it stands, this passage leaves unresolved the question of what role these \textit{principia cognoscendi} play in earthly human knowledge. In what follows, I argue that Grosseteste refers here to the cognizing principles associated with a specialized form of angelic irradiation and, as a result, these principles play a very specific role in the cognitive life of only a select number of people.

\textsuperscript{16}This is, at least, Grosseteste’s position on the relation between the first light and the intelligences, as seems clear from his careful use of the word ‘irradiation’ as opposed to ‘illumination’ in his discussion of these principles. It is worth noting, however, that the intelligences do not always merely reflect the first light in an illuminationist framework.

\textsuperscript{17}For discussion of the history of the relation between angelic and Avicennian illumination, see Marrone, “From Gundisalvus to Bonaventure: Intellect and Intelligences in the Late Twelfth and Early Thirteenth Centuries,” in \textit{Intelllect et imagination dans la philosophie medieval}, ed. M. C. Pacheco and J. F. Meirinhos (Turnhout: Brepols, 2006), vol. 2, 1071–81.
The Avicennian view popular among Grosseteste’s university colleagues in the early thirteenth century was that the agent intellect was a separate substance (rather than a faculty of the human intellect) and the cause of human knowledge of universals.\(^{18}\) According to this position, the objects of intellection were produced in human subjects through a direct emanation from the agent intellect, the “giver of forms” or \textit{dator formarum}.\(^{19}\) At the same time, it was also common parlance in the early thirteenth century to describe angels—also referred to as immaterial and separated substances—as intelligences, who participated in the creation of the world with God and who could also irradiate human intellects.\(^{20}\)

Although some contemporary authors (such as William of Auvergne) considered these two forms of irradiation to be equivalent, for Grosseteste’s purposes the nature of the intelligence being referred to in this passage affects both the nature and the scope of the cognizing principles at stake. If it were the agent intellect, for instance, the relevant principles of cognizing would most likely include the basic elements of mathematical and logical truths, as well as the nature and causes of all the corruptible, terrestrial things that the agent intellect had a hand in bringing about.\(^{21}\) Furthermore, because on Avicenna’s view the agent intellect plays a central role in human cognitive activity, we would expect this mode of irradiation to be the norm for human cognition. These universals would, in turn, be the sort involved in demonstrative science and human scientific knowledge. In addition, since the agent intellect is eternal and unchanging, and the “exemplar forms” and causal ideas of created things it possesses are similarly incorruptible, the question of the incorruptibility of the universals involved in demonstrations would be answered.

If the intelligences mentioned here are the angels, though, it becomes much less clear what role these principles play in human cognition. On the one hand, if Grosseteste is thinking of angelic intelligences as equivalent to the agent intellect, then the principles of cognizing at stake in this discussion would be the proper objects of human cognition and the universals relevant to demonstrative science.\(^{22}\)

\(^{18}\)For a history of Avicenna’s view, see Dag Hasse, \textit{Avicenna’s De anima in the Latin West}, (London: Warburg Institute, 2000).

\(^{19}\)See Avicenna’s \textit{De anima} 5.5. Apparently, this conception of the agent intellect as the direct cause of human knowledge of universals even led some early thirteenth century thinkers to identify the agent intellect with God. Grosseteste, however, does not hold this view, given that he distinguishes clearly in this passage between the first light and the irradiated intelligence. Other contemporary authors identified the agent intellect with the highest active power of the rational soul; that Grosseteste does not hold this view is made clear, however, by the fact that he claims that this is not the sort of principle involved in demonstrative science.

\(^{20}\)That he is not referring to the intelligences contained in the celestial spheres is made clear by the fact that he considers the spheres next, as a separate category. In addition, as Richard C. Dales has argued convincingly, Grosseteste holds a view of the celestial spheres as by moved by natural motion rather than by an intelligence. See Dales, “The De-Animation of the Heavens in the Middle Ages,” \textit{Journal of the History of Ideas} 41 (1980): 531–50.

\(^{21}\)See Rossi, “Robert Grosseteste,” for a reading of this passage that leans toward this interpretation.

\(^{22}\)This is Rega Wood’s position, as she has indicated in personal correspondence. For a more general discussion of issues involving the agent intellect and cognition, see her “Imagination and Experience in the Sensory Soul and Beyond: Richard Rufus, Roger Bacon & Their Contemporaries,” in \textit{Forming the Mind: Essays on the Internal Senses and the Mind/Body Problem from Avicenna to the Medical Enlightenment}, ed. H. Lagerlund (Dordrecht: Springer, 2007), 27–58.
On the other hand, if he is thinking of angelic intelligences in a way consistent with many later authors (including Thomas Aquinas), then this sort of irradiation is the exception rather than the norm, and it involves not the general objects of human cognition but rather specific supernatural revelations. On this second reading, these principles of cognition would be reserved for purified intellects in special circumstances.

There is some initial support for the first reading. For one, Grosseteste claims that human intellects that have not reached complete purity “often” (multotiens) receive this sort of irradiation. If this irradiating force were the Avicennian agent intellect or equivalent angelic intelligences, emanation would indeed be the norm for human cognition, and these principia cognoscendi would be the standard objects of intellection. Second, as mentioned above, this was the position held by many of Grosseteste’s contemporaries. In fact, the reading of the agent intellect as a separate substance necessary for human acquisition of universals was a popular interpretation of Aristotle’s own view in De anima III.5. William of Auvergne, for instance, identified “the Aristotelian agent intellect as nothing more than an intelligence imparting knowledge to a mind by means of the concepts it contained.” Given his historical context, it would be unsurprising if Grosseteste were to adopt a similar interpretation, especially in light of his adherence to a generally illuminationist account and his Neoplatonic sympathies with the doctrine of emanation.

Despite this, it seems to me highly implausible that Grosseteste is appealing here either to the agent intellect or to angelic intelligences playing a similar role. The idea of the dator formarum does not, for instance, play any role in the remainder of the commentary’s detailed discussions of intellection—an omission that would be egregious if Grosseteste thought that the agent intellect or angelic intelligences possessed a central role in human cognition—nor does anything else in the rest of the commentary suggest that human beings engage in demonstrative science using principles of cognition that also serve as the “causal ideas” and “exemplar forms” of created things. In addition, this view of the agent intellect or angelic intelligences as irradiating the intellect with principles of cognition would leave his later discussion of the process of abstraction from sense experience to universals almost entirely unmotivated. There is, moreover, good external reason to think that the “intelligences” mentioned here are the angels, including the fact that in an earlier treatise, De intelligentiis, Grosseteste explicitly identifies the intelligences as angels. In the CPA, he does nothing to indicate that he has changed his mind

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23 Interpretations differed, however, as to whether human beings merely received knowledge of universals from the agent intellect (in a manner similar to Augustine’s account of divine illumination and common in the Neoplatonic tradition) or whether they were also actively involved in the process of abstracting to the universals from sense experience.


25 Although I reject the reading of the intelligence as Agent Intellect, I do not want to go so far as Lawrence Lynch, who claims in his comments on this passage: “There is no question of introducing an Aristotelian active intellect, for there is no Aristotelian abstraction. There is only Augustinian illumination” (“The Doctrine of Divine Ideas,” 172).

26 See I.14 (238n32), quoted in section 5, below.

about this issue. Finally (and, in my view, decisively), just a few lines later Grosseteste explicitly identifies the universals that human beings employ in demonstrative science with a distinct, fourth type of cognizing principle.

This reading sharply narrows the role these cognizing principles play in human cognition. Grosseteste’s claim that intellects that are not pure enough to cognize the first light “often” receive irradiation from the intelligences makes these cognizing principles sound fairly accessible, yet his insistence that our corrupt bodies interfere with the illumination of our intellects by consistently pulling our mental vision down to earthly concerns seems to apply to the prospect of angelic irradiation as well as divine illumination. Because inappropriate love for the material world and the corresponding phantasms (as opposed to the intellect’s natural strength or weakness) are what problematize the possibility of direct illumination for human beings, it is hard to see how shifting the source of that illumination from the first cause to the intelligences would do anything to alleviate that difficulty.28

Indeed, although Grosseteste says nothing more in the Posterior Analytics commentary concerning the role of intelligences in human cognition, in several other works (including the Commentary on the Celestial Hierarchy and De intelligentis), he implies that angels are directly responsible only for limited human knowledge of a very specialized sort, such as the order of the hierarchy of being, the nature of mysteries such as the Trinity and the Incarnation, and God’s will for future events (such as the birth of Isaac, John the Baptist, and Jesus).29 As in the case of direct epistemic contact with God, such events are highly unusual and are generally reserved for intellects already at an advanced state of purification, such as Abraham, Daniel, Zachariah, and the apostle John.

Given these facts, I believe Grosseteste’s statement concerning the frequency of this sort of irradiation should be read not as the claim that the intelligences play a common role in human cognition, but as the claim that, as they progress in their efforts to turn away from earthly distractions and direct their love toward the first light,30 human intellects frequently start to access these principles of cogniz-

28If the problem were that human intellects simply are not strong enough to see the first light, then one could see how relocating the source of mental illumination to the intelligences—which are closer to us in nature—might help. Throughout the rest of the CPA, however, Grosseteste applies his metaphor of the clouding of our mental vision broadly in such a way that it would seem to block any sort of supernatural illumination of our intellects. See, e.g., I.14: “[I]f the highest part of the human soul, which is called the intellective part ... were not clouded and weighed down by the weight of the corrupt corporeal body, it would have complete knowledge without the aid of sense-perception through an irradiation received from a higher light, just as it will have when the soul has been stripped from the body and perhaps as those who are wholly separated from the love and the phantasms of corporeal things have” (228–35). Here Grosseteste does nothing to distinguish between divine and angelic illumination; the fact that he uses the word ‘irradiation’ instead of ‘illumination’ explicitly leaves open the possibility that ideal—as opposed to actual—human cognition might involve angelic intelligences. (As I argue below, however, it does not block the supernatural illumination of the objects of human cognition.)

29For a fuller discussion of this topic, see McEvoy, The Philosophy of Robert Grosseteste, 351–54.

30For a detailed description of this process, see CPA I.14. Grosseteste claims that the soul’s union with the corrupt body pulls its gaze toward earthly distractions—until, that is, sense experience inspires the soul to look for universal truths. As Grosseteste writes toward the end of the chapter: “The mind’s vision that is turned away from its light is necessarily turned toward darkness and idleness until, coming through the external senses in some way out into the external sensible light, it in some way finds
ing before they can access the highest sort of principles. As such, these *principia cognoscendi* play an important role in the full story of human knowledge, but they play an extremely limited role in the earthly cognitive lives of most human beings and in the process of cognition with which Grosseteste is most concerned in the *CPA*.

4. Celestial Spheres and Human Intelligences

Another component of the complete story of human cognition—again, relatively rare, but necessary for understanding the full range of cognizing principles accessible to human intelligences—are the universals contained in the incorruptible celestial spheres. As Grosseteste writes:

[In the powers and lights [*luminibus*] of the celestial bodies there are causal ideas of the terrestrial species (individual members of which are corruptible); for the intellect that isn’t able to contemplate either the created or uncreated incorporeal light in itself but that can see these causal ideas located in celestial bodies, they are principles of being and of cognizing, and they are incorruptible.]

(124–30)

Like most medieval proponents of astronomy, Grosseteste holds that human beings who apply themselves assiduously to the study of the movements and nature of the celestial bodies can discover in them certain principles of cognizing that are the “causal ideas” of terrestrial species, such as human beings and turtles. As we have seen, the vast majority of human beings will remain unable to access the universals that correspond directly to those possessed by God or the intelligences (the “uncreated” and “created” incorporeal lights). Nevertheless, through intensive study and sound reasoning, Grosseteste believes that many human intelligences could arrive at the principles of cognizing that correspond to the “causal ideas of the terrestrial species” present in the immutable celestial bodies.

These cognizing principles concern a narrower class of universals than the first two sorts: the first type of cognizing principle provides access to the nature of not only all actual beings (and also, one assumes, all possible beings), but also God,
while the second type of cognizing principle involves cognition of the natures of all created beings (including the intelligences), but does not involve cognition of God or God’s uncreated ideas. The third type of cognizing principle involves cognition of the nature of all beings in the empirical world, but it does not involve cognition either of God or of the intelligences. The fact that these principia cognoscendi are possessed only by people at an extremely advanced level of study, however, again rules out the possibility that they are the universals that feature in the *Posterior Analytics* and that raise the puzzle that motivates Grosseteste’s discussion of the topic. Thus, the final account of human knowledge is not complete—it is, in fact, still missing its central component: the universals involved in demonstrative science.

5. ARISTOTELIAN FORMS AND DEMONSTRATIVE SCIENCE

To this point in his discussion, Grosseteste has made no explicit reference to Aristotle; as we have seen, his account of the first three sorts of cognizing principles relies on a strongly Augustinian and Neoplatonic understanding of levels of emanation from the first light. After describing the incorruptible universals contained in the celestial spheres, however, Grosseteste finally discusses the type of cognizing principle that human beings most commonly have access to—and he identifies these universals as those to which Aristotle refers:

In a fourth way, [an intellect] can cognize a thing in its formal cause, which is in the form and that by which that thing is what it is. And both insofar as one sees that same form—which is part of the thing—in the form (just as one sees light in itself), and insofar as one sees matter in that thing—which is likewise part of the thing—that form is not genus or species; insofar as that form is the form of the whole composite, however, and insofar as it is the principle of cognizing the whole composite, it is genus or species, and a principle of being, and predicable in quid. And so [human beings] make demonstrations both concerning genera and species and through genera and species, and the most accurate definition is the sort constructed from a genus and a differentia. And this is Aristotle’s position concerning genera and species. (131–41)

Here Grosseteste draws an important distinction between forms narrowly understood and broadly conceived, for on Aristotle’s account one can mean two different things when speaking of Socrates’ form. First, Socrates can be described as a composite of form and matter, in which case his substantial form is understood as one part of him, and his matter as the other. Taken in this way, however, Socrates’ form is not itself identical to his genus or species; rather, it is his soul, his individual principle of life, and the first actuality of his particular body. Cognition of Socrates’ substantial form would not entail cognition of the universal human being, because such a form constitutes only one part of a human being. In contrast stands the form of Socrates understood as “the form of the whole composite”: in this case, Socrates’ humanity. Taken this way, Socrates’ form is what is referred

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4For a discussion of the Plotinian roots of Grosseteste’s use of the metaphor of light in describing the different levels of universals accessible to human beings, see Yael Raizman-Kedara, “Plotinus’s conception of unity and multiplicity as the root to the medieval distinction between lux and lumen,” *Studies in History and Philosophy of Science, Part A* 37 (2006): 379–97.
to by the definition of ‘human being’ as ‘rational animal’. Because these forms involve reference to both matter and form, they serve as principles of cognizing the whole composite, and they are the proper objects of demonstrative science. Demonstrations concerning the humanity of Socrates or the turtality of Pedro, for instance, refer to these sorts of universals.

Unlike the first three types, these principles of cognizing are widely accessible to human intellects. In fact, although Grosseteste says nothing in I.7 about the process by which we acquire them, in I.14 he makes it clear that such universals are available (in theory at least) to anyone with sense perception and reason:

And so when—over time—the senses act through their many meetings with sensible things, reason (which is mixed up with these senses and in them as if it were carried toward the sensible things in a boat) is awakened. But once it is awakened, reason begins to distinguish between and to consider separately things that had been confused in the senses—as, for example, sight confuses color, magnitude, shape, and body, and in its judgment these things are all taken as one thing. Awakened reason, however, distinguishes color from magnitude and shape from body and, furthermore, shape and magnitude from the substance of the body. And so, through drawing distinctions and abstracting, it comes to the cognition of the substance of the body that bears [deferaentis] the magnitude, shape, and color. Nevertheless, reason knows that this universal exists in actuality only after it has made this abstraction from many individuals and after it has occurred to reason that it has found in many individuals what it judges to be one and the same thing. Therefore, this is the way in which the simple universal is obtained from individuals through the help of the senses.35 (238–52)

This passage presents a straightforwardly Aristotelian account of how human beings acquire simple universal concepts, beginning with sense perception and proceeding through division and abstraction to an understanding of the universal.36 It also makes reference to none of the other sorts of cognizing principles Grosseteste takes pains to lay out in I.7—but that is hardly surprising, given that he reserves access to those principles for human intellects at variously advanced stages of purification and separation from material concerns.37

Two questions naturally arise at this point. First, if these principles of cognition are the ones relevant for scientia, and if we obtain them through an Aristotelian process of abstraction from sensible particulars, what role is left for a genuinely illuminationist account of knowledge? On the face of it, it appears that Grosseteste is providing here an essentially Aristotelian account of the ordinary course of human

35 This is the process for acquiring what Grosseteste calls a simple universal; he also describes how human beings arrive at knowledge of complex experiential universals, but that discussion is tangential to the topic of this paper.


37 In I.17, for instance, Grosseteste writes: “Divine things are more visible to the mind’s vision that is healthy and not clouded by phantasmata… But to the mind’s vision that is unhealthy, such as our vision is while we are burdened by the weight of the corrupt body and the love of corporeal things, the things that are more visible are covered up with phantasmata… Therefore to the human intellect such as is currently in us, mathematical things are most certain, for the imaginable phantasmata received by sight aid us in comprehending them” (353–63).
cognition in which divine illumination functions as a useful but ultimately hollow metaphor. Second, how are we to understand the relation of these Aristotelian forms to the other principles of cognition? In response to the first question, I turn now to a discussion of how Grosseteste portrays God in the CPA as illuminating the proper objects of cognition (rather than illuminating human intellects directly). To address the second question, it proves useful to turn first to the final type of cognizing principle that Grosseteste identifies in I.7, and then, finally, to the solution he proposes to the original aporia concerning corruptible particulars and the universals involved in necessary truths.

As we have seen, our corrupt bodies prevent our intellects from receiving illumination directly from God (or the intelligences) in all but the rarest of cases; I believe, however, that Grosseteste’s subsequent emphasis on God’s relation to intelligible objects is meant to demonstrate the crucial “ideogenic” function God still plays in the human acquisition of universal concepts, making the proper objects of cognition accessible to human intellects.38 As I have argued at length elsewhere, the “spiritual light” to which Grosseteste refers repeatedly in the CPA is not the light of the human intellect (as scholars such Steven Marrone and Rega Wood have maintained), but rather the light of the first cause.39 Thus, when Grosseteste makes claims such as “things that are prior are closer to the spiritual light by which—when it pours over intelligible objects—those objects are made actually visible to the mind’s vision” (I.17), his emphasis is on how God makes the objects of our mental vision accessible to us, not on how our intellects illuminate the objects of our own understanding.

On my reading of the CPA, in ordinary cases of human cognition, the objects God illuminates are the universals involved in demonstrative science—universals we grasp through the process of abstraction described in I.14. Human cognition requires our reasoning about sense experience and phantasms, but our intellects are not left on their own during the process of abstraction. Rather, as we apply reason to sense experience and phantasms in an effort to abstract to the true nature of a substance, God’s light is what allows us to identify the true essences of things so that we can carve nature at the joints when we engage in intellective activity.40 Rather than placing knowledge of universals directly in our intellects, as some theories of divine illumination hold, on Grosseteste’s account, God makes those universals accessible to our intellects by making them such that they catch our mental gaze in a special way.41 God—the spiritual light—is thus responsible

40Some universals will be “brighter” than others because of their greater similarity to the divine light. See, e.g., Grosseteste’s claim in I.17: “[T]he intelligible things that are more receptive of this spiritual light are more visible to the interior eye, and the things that are more receptive of this light are by nature more similar to this light. And so the things that are more receptive of this light are penetrated more perfectly by a mental sight that is also a spiritual irradiation, and this penetration is more perfect and more certain” (39–47).
41In this life, then, mathematical knowledge is the most certain knowledge we have, for it involves unchanging, immaterial, eternal truths that sense experience and phantasms can, nevertheless, aid us in acquiring. (See note 37 above for a passage in which Grosseteste explicitly makes this claim.)
for the fact that the vast majority of human intellects can see the true natures of things when they engage reason long and hard enough in the process of abstraction. Because this light is a precondition for our being able to acquire truth on any level, Grosseteste’s theory of the acquisition of the universals typically employed in human cognition is genuinely illuminationist, while the fact that our intellects cannot themselves be directly illuminated by God (or the intelligences) leads Grosseteste to advocate an Aristotelian account of abstraction from sensible particulars as an equally necessary part of the story.

6. WEAK INTELLECTS, HUMAN COGNITION, AND PRINCIPLES OF BEING

Insofar as Grosseteste explicitly identifies the fourth type of universal as the sort involved in demonstrative science, it seems that the story of human cognition is now complete. Yet Grosseteste goes on to claim that some human beings lack the ability to grasp even these basic principles. Their intellects are, apparently, so bound up with material considerations and phantasms that, even with God’s illuminating help, they never manage to abstract all the way to the universals instantiated in material particulars, much less the universals contained in the celestial spheres, the intelligences, or God; instead, they latch on to contingent features of substances and use those features in their cognitive processes:

The weak intellect, which cannot rise to the cognition of these true genera and species, knows things only through the accidents following from the true essences of things, and for that intellect these accidents are genera and species and are principles only of cognizing and not of being. (141–45)

Some scholars, including James McEvoy and Simon Oliver, have argued that these accidents do not constitute a proper part of Grosseteste’s account of human knowledge and should not really be referred to as universals at all. As Oliver puts it, “In addition to the four varieties of universal, Grosseteste comments on the very lowest form of ‘knowledge’… [which] does not concentrate on universals at all, but is arrived at through the observation of accidents.” I believe this reading obscures the force of the real distinction here, however, for Grosseteste is quite explicit that what weak intellects have access to are, in fact, genuine principles of cognizing. What really marks this sort of principle apart from the previous four is not that it does not involve universals, but the fact that this kind of principle counts only as a principle of cognizing and not also as a principle of being.

Given the CPA’s focus on intellection, both the discussion in I.7 and its broader context have naturally provided us with a better picture of principia cognoscendi than principia essendi. Principles of cognizing are the proper objects of human knowledge; they are what we think about when we think about species or genera, and they are what we use in making the demonstrations that both Aristotle and

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42 See McEvoy, The Philosophy of Robert Grosseteste, 327, and Oliver, “Grosseteste on Light, Truth, and Experimentum.”
43 Oliver, “Grosseteste on Light, Truth, and Experimentum,” 164;
44 Frustratingly, although both terms play a central role in this passage—and, correspondingly, a central role in understanding Grosseteste’s account of the proper objects of human cognition—Grosseteste uses neither phrase again at any point in the rest of his commentary.
Grosseteste believe yield genuine knowledge. In contrast, the most significant information we have about the nature of principia essendi is the negative claim that this fifth type of cognizing principle does not also count as a type of principle of being on the grounds that it involves only the accidents that follow from the “true essence” of things and not those essences themselves.

Moreover, in this passage, Grosseteste leaves the exact nature of these accidents that follow from the essences of things unclear. On the one hand, they might be a substance’s necessary accidents (propria)—properties that follow directly from the definition of a substance but which are not, themselves, contained in that definition. On this reading, Grosseteste would be claiming that certain people confuse the necessary accidents of a substance with its essence; such people might, for instance, identify human beings as “laughing animals” instead of “rational animals.” On the other hand, Grosseteste might be thinking of people who never progress past thinking of substances in terms of any or all of their observable accidental characteristics; people who identify swans, for instance, as “regal white birds with long, arched necks,” or human beings as “non-feathered bipeds.” On both readings, however, the relevant accidents are universals such as “risibility,” “white,” or “biped”; in each case, they differ from the other sorts of principles of cognizing by being accidental rather than substantial universals.

Principia essendi thus appear to emerge from this contrast between the true essences of things and their accidents as what accounts for a thing’s ontic status. God’s Ideas, for example, are not merely cognitive entities—they bear a causal relation to created beings. As both “causative” ideas and exemplar forms, the objects of intellection for those very few human beings who manage to attain this level of cognition in this life are the principles of creation themselves. God’s Idea of a human being, for instance, serves as a principle of cognizing and of being because it simultaneously serves as the formal paradigm of “humanity” and is caus-
ally responsible both for any particular human being’s existing and its existing as a human being. The same is true for the principles contained in the intelligences, who aided God in the creation of the universe; as exemplar forms and “the causal ideas of the things which are subsequently to be created,” these principles function as means of understanding the created world and are causally related to created things. The same is also true, to a lesser extent, of the principles located in the celestial spheres. As noted above, Grosseteste agreed with the majority of medieval philosophers that the celestial spheres possess some causal influence on terrestrial beings. Each of these three sorts of principles thus contains a decreasingly central aspect of the ultimate explanation of why a human being, for example, is what it is.

The fourth type of principia cognoscendi et essendi is similar to these first three sorts of principles, with the notable exception that this type is contained in the corporeal substances themselves. As that “by which that thing is what it is,” these formal causes function both as what we know when we cognize humanity and as what make Socrates a human being in the first place. These principles of being do not bear the same sort of causal relation to their subject as the first three types insofar as they are merely formal and not also efficient causes, but all four types of universals capture the real natures or true essences of things, and—importantly—all four types can thus serve as the proper subjects of demonstrative science (although only the fourth type does so with any regularity). The accidents that follow from the essences of things do not causally explain anything further, however. Substantial forms are internal causes of the accidental features of a thing, but those accidental forms themselves lack further causal efficacy in the relevant sense. Thus, it becomes clearer both why the fifth type of cognizing principle does not count as a principle of being and also why it completes the story of human cognition.

7. THE PUZZLE OF INCORRUPTIBLE UNIVERSALS

Although all five sorts of principles of cognizing are required for telling the whole story of human knowledge, and although at least the first four could serve as the subjects of demonstrative science, the three sorts of universals that Grosseteste explicitly identifies as incorruptible remain beyond the reach of the vast majority of human intellects. In finally responding to the initial worry concerning necessary truths and corruptible particulars that sparked this entire discussion, then, Grosseteste focuses solely on the sort of universal that is widely accessible to human intellects and, thus, the sort that is involved in demonstrative science: the universals that exist in corruptible substances, which are also the only universals that seem liable to suffer corruption. The solution he proposes in response to the original problem, however, appears drastically underdeveloped in light of the detailed discussion of the hierarchy of cognizing principles that immediately precedes it. Given the length and significance of the preceding discussion, the fact that the solution itself receives so little attention actually strikes me as further evidence for the claim that Grosseteste’s real motivation throughout this discussion has not been to resolve this problem at all but, rather, to situate Aristotle’s theory of universals explicitly within a broader epistemic (specifically, Augustinian and Neoplatonic) framework.
Grosseteste offers two brief and thoroughly unoriginal responses to the original *aporia*, without even bothering to adjudicate between them. The first solution is that a universal might count as incorruptible *per se*, but only *per accidens*. That is, there is a sense in which the universal *turtle* that was instantiated by Pedro the turtle perishes when Pedro dies—but only accidentally, through the corruption of Pedro, and not because of anything that belongs properly to the nature of the universal *turtle*. The second solution Grosseteste offers is the familiar “eternity of species” view, according to which a universal counts as incorruptible *per se* as there is an unbroken chain of corruptible individuals who instantiate it. Thus, the species “human being” can be said to persist through the death and corruption of individual human beings in virtue of the continued existence of other members of the human species, despite the fact that particular instances of the universal *human being* perish when individual human beings perish.

If Grosseteste’s primary concern in I.7 were solving the problem of the incorruptibility of universals, this highly attenuated “solution” would be nothing short of bizarre. Furthermore, the lengths to which Grosseteste goes to lay out and consider the first three sorts of universals—only to exclude them explicitly from being relevant to the problem at hand—would be utterly unmotivated. When all is said and done, both Grosseteste’s posing of the initial puzzle and the two solutions he considers take place in an entirely aristotelian framework. In commenting on the *Posterior Analytics*, moreover, there is no internal motivation for introducing God, intelligences, or the celestial spheres into a discussion of the incorruptibility of universals.

There is, however, reason to introduce such elements if Grosseteste’s real interest in this passage is to demonstrate that Aristotelian universals fit neatly within a broader account of the emanation of forms and divine illumination. By describing in detail the status of the universals present in God, the intelligences, and the celestial spheres, and their relation to human intellects, Grosseteste is able simultaneously to acknowledge the importance of these universals for the ontic status of terrestrial substances and to distinguish them from the universals most relevant to human knowledge in this life.

Indeed, in light of the sharp lines drawn between Aristotelianism and Augustinianism in subsequent centuries, what proves most striking about this discussion is the extent to which Grosseteste himself refrains from advancing one theory over the other. Nowhere, for instance, does he suggest that advocating an Aristotelian account of universals or abstraction conflicts with a robust theory of divine illumination or the Augustinian position on universals. Rather, he seems simply to assume that Aristotle’s position complements the illuminationist stance commonly accepted at the outset of the thirteenth century. On Grosseteste’s view, both the Aristotelian and Augustinian accounts of human cognition appear, taken by themselves, to be incomplete; the full variety of cognizing principles laid out in this passage prove necessary for providing a complete account of human knowledge. This is especially

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48The relative amount of time he spends discussing the second possibility, however, does seem to indicate that it is the one he finds most promising.
evident if, as I have argued, Grosseteste sees a combination of Aristotelian abstraction and divine illumination of intelligible objects as necessary for the acquisition of universals in the ordinary course of human cognition.

Grosseteste’s real project in I.7 thus appears to be to present a synthesized account of Augustinian, Neoplatonic, and Aristotelian universals. Rather than choosing between them, as most modern interpreters have assumed he must, Grosseteste embraces all three positions simultaneously. The resulting conception of universals is correspondingly complex, and Grosseteste himself leaves it underdetermined how the five types of cognizing principles and the four types of principles of being are meant to relate to one another. Putting aside for now the question of whether such an inclusionist account is philosophically plausible on either epistemological or ontological grounds, I want to conclude this article with the provocative suggestion that the dominant interpretations of Grosseteste on this issue have all missed the mark not because the interpreters have misread the text, but because they have misread his intentions. The later battles between advocates of divine illumination and Aristotelianism have colored the lens through which most scholars read this earliest of Posterior Analytics commentaries so thoroughly that it has caused them to misread what Grosseteste himself took himself to be doing in the CPA.

That Grosseteste saw as his final goal a new account of human cognition that took as its basis the strongest elements of previous theories, however, seems much more interesting than the possibility that he meant to advocate either Aristotle or Augustine’s view over the other. It also gives one pause: what might we find if we remove more pivotal texts from their Procrustean beds and examine them not in light of the later course of events, but in light of their original intent?49

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