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Nicholas of Cusa and modern philosophy

“Gatekeeper of the modern age”

Nicholas of Cusa (Niklas Krebs, known as Cusanus, 1401–64), one of the most original and creative intellects of the fifteenth century,¹ has been variously described as “the last great philosopher of the dying Middle Ages” (Alexandre Koyré), as a “transition-thinker” between the medieval and modern worlds (Frederick Copleston),² and as the “gatekeeper of the modern age” (Rudolf Haubst).³ He is a lone figure with no real successor although he had some influence on Copernicus, Kepler, Bruno, and, tangentially, on Descartes. The German Idealists showed some interest in Nicholas of Cusa but the real revival of his thought was stimulated by the neo-Kantian philosopher Ernst Cassirer (1874–1945) who called him “the first modern thinker” and by the existentialist Karl Jaspers.⁴ Cassirer compared him to Kant for his view that objects have to be understood in terms of the categories of our own thought.⁵ Other scholars, notably Alexandre Koyré,⁶ Hans-Georg Gadamer,⁷ Hans Blumenberg,⁸ Werner Beierwaltes,⁹ and Karsten Harries,¹⁰ all see him in a certain way as a harbinger of modernity.¹¹ Yet his outlook is essentially conservative, aiming, as Hans Blumenberg has recognized, to maintain the medieval synthesis.¹²

Cusanus was a humanist scholar, Church reformer – his *De concordantia catholica* (*On Catholic Concord*, 1434) included proposals for the reform of Church and state – papal diplomat, and Catholic cardinal. In the course of his life he attempted to reconcile papal and conciliar ecclesiology, Greek Eastern and Latin Western Christianity, Muslims and Christians, traditional theology and emerging mathematical science. In many ways he is a Renaissance figure. An exact contemporary of Gutenberg, he is credited with helping to introduce printing into Italy.¹³ He wrote an informed treatise, *De correctione calendarii*, on the reform of the calendar. His astronomical instruments are still preserved in the library at Kues. He has earned a place in the history of mathematics for his attempts to “square the circle.” His

De docta ignorantia (*On Learned Ignorance*, 1440) already offers criticisms of the Ptolemaic universe, and postulates that the Earth is in movement and that the universe has no fixed centre.¹⁴ With this account, the twentieth-century physicist Carl Friedrich von Weizsäcker even sees Cusanus as bypassing the Copernican world toward the universe of relativity.¹⁵

As a philosopher and theologian, Cusanus is preoccupied by a single problem that runs through all his works: how can we, as finite created beings, think about the infinite and transcendent God? God is “infinite oneness” (*unitas infinita*, *DDI* 1.5.14). Cusanus begins from what he takes to be the “self-evident” proposition that there is no proportion between finite and infinite (*DDI* 1.3.9). Our rational knowledge progresses by degrees and can get infinitely more precise without coinciding exactly with its object. It must be supplemented by a kind of intellectual unknowing, a knowing that recognizes its own limitations in the sphere of the transcendent and infinite. The arrogant kind of knowing used in disputation must be contrasted with “learned ignorance.”

Cusanus himself situates his thought within Platonism both pagan (Plato, Proclus) and Christian (Augustine, Dionysius the Areopagite (pseudo), Scotus Eriugena, Thierry of Chartres). He had the greatest knowledge of the Platonic tradition of anyone prior to Ficino. An eager collector of manuscripts, he eventually owned some 300 of them, including Latin translations of Plato’s *Phaedo*, *Crito*, *Apology* and *Seventh Letter*, *Republic*, *Laws*, *Phaedrus*, and *Parmenides*.¹⁶ He owned Moerbeke’s translation of Proclus’ *Elements of Theology* and *Commentary on the Parmenides* and Petrus Balbus’s translation of Proclus’ *Platonic Theology*. He had copies of part of Eriugena’s *Periphyseon*, Hugh of St. Victor’s *Didascalikon*, and several works by Eckhart.

He is most strongly influenced by “our” Dionysius the Areopagite (*De beryllo* or *On the Prism* 12),¹⁷ “disciple of the Apostle Paul” (*De beryllo* 11), “that greatest seeker of divine things” (*maximus ille divinorum scrutator*, *DDI* 1.16.43), “who assigned God many names” (*De beryllo* 46). From his earliest to his last works (e.g. *De li non aliud*) Cusanus cites Dionysius, although he later said that at the time of writing *De docta ignorantia* (1440), he had not yet read Dionysius (*Apologia doctae ignorantiae* 12).¹⁸ He characterizes his Platonism as stemming from the Areopagite, but he also draws on Dionysius’ Latin translators and commentators, including Eriugena (“Johannes Scotigena”),¹⁹ Albertus Magnus’ *Commentary on the Divine Names*,²⁰ Robert Grosseteste (whose translations of Dionysius’ *Mystical Theology* and *Celestial Hierarchy* he owned in manuscript), Thomas Gallus, and Meister Eckhart.

Cusanus situates Dionysius as a practitioner of dialectic in the tradition stemming from Plato’s *Parmenides*. He even anticipates Lorenzo Valla’s

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unmasking of Dionysius as a pseudonymous author with his recognition of the close doctrinal proximity between Proclus and Dionysius. Cusanus writes: “The great Dionysius imitates Plato” (*De beryllo* 27) and in his *Apologia doctae ignorantiae* (*A Defense of Learned Ignorance*, 1449) states that: “the divine Dionysius imitated Plato to such an extent that he is quite frequently found to have cited Plato’s words in series” (*Apologia* 10).²¹ In the same work, he speaks of the “divine Plato” and of the *Parmenides* as opening a “way to God.”²² He quotes Proclus’ *Commentary on the Parmenides*²³ to the effect that Plato denied that predications can be made of the first principle, just as Dionysius prefers negative to affirmative theology (*De beryllo* 12). Of course, as an orthodox Christian, Cusanus is fully aware that certain doctrines of classical Platonism (the doctrine of the world soul, of fate, of the eternity of the world, etc.) conflict with Christianity and he takes issue with the *platonici* on these points. For instance, he criticizes Plato for assuming that creation arises from divine necessity rather than from divine free will (*De beryllo* 38).

Cusanus has been thought to have influenced Descartes’s account of the infinite universe. Descartes, in a letter of 6 June 1647 to Père Chanut, marvels at the philosophical acumen of Queen Christina of Sweden as displayed in her comments on the supposed size of the universe (as calculated by Descartes). He writes:

In the first place I recollect that the Cardinal of Cusa and many other doctors have supposed the world to be infinite without ever being censured by the Church; on the contrary, to represent God’s works as very great is thought to be a way of doing him honor. And my opinion is not so difficult to accept as theirs, because I do not say that the world is infinite but only that it is indefinite. There is quite a notable difference between the two: for we cannot say that something is infinite without a reason to prove this such as we can give only in the case of God; but we can say that a thing is indefinite simply if we have no reason to prove that the thing has bounds.²⁴

In this brief reference, Descartes presents Cusanus as anticipating modern Galilean science by maintaining that the universe is infinite.²⁵ Koyré credits Cusanus with being the first to break with the closed medieval conception of the cosmos by conceiving of the universe as infinite.²⁶ Descartes himself maintains that the conception of matter as extension does not convey the idea of boundaries, and hence he designates it as “indefinite” and resists declaring it to be “infinite” since there “may be some reasons which are known to God though incomprehensible to me.”²⁷ More accurately, however, Cusanus did not hold that the universe is actually either infinite or finite, but rather that it is “indeterminate” or “unbounded” (*interminatum, sine termino*, *DDI* II.I.97), lacking precision and hence definition, and

hence “privatively infinite” (*privative infinitum*, DDI II.I.97). Cusanus reasons that the universe is indeterminate because it is mutable and hence cannot be precisely known. Every created being is limited by its potency whereas the divine infinity, which is at once infinite power and infinite actuality, is alone “that which can be every potency” (*id quod esse potest omni potentia*, DDI II.I.97).

Besides this influence on Descartes, it is now thought likely that Cusanus had a subterranean influence on Spinoza and Leibniz. Some of Cusanus’ formulations (“God is actually all that He can be” or God is actually every possibility, *ut sit actu omne id quod possibile est*, DDI I.5.14) anticipate Spinoza’s concept of a God as the actualization of all possibilities.²⁸ Cusanus’ “all things exist in the best way they are able to exist” (*omnia sunt eo meliori modo quo esse possunt*, DDI I.5.13) may be compared with Leibniz’s best of all possible worlds.²⁹

It is clear that one cannot simply present Cusanus as a Cartesian modern since he displays almost no interest in subjectivity (the *cogito*), although he is deeply interested in the related problem of perspective. Cusanus’ supposed modernity is in part justified by his frequent and original use of mathematical analogies. Cusanus is a strong advocate of employing mathematics to assist in the contemplation of the divine. Knowledge of the world comes through the “mirror” of mathematical symbolism (*De possest* 1.43). However, his employment of mathematics is for entirely traditional purposes. Following Augustine, Boethius, and ultimately Pythagoras, he uses mathematical examples (*exemplo mathematico*, DDI I.24.74) as a kind of spiritual exercise to express theological insights. For instance, in *De possest* (*On Actualized Possibility*) 1.23, he invokes a spinning top, which, as it spins faster, appears to be standing still, as an exercise for conceiving the God who is the “coincidence of opposites.” Cusanus endorses Pythagoras’ claim that “all things are constituted and understood through the power of numbers” (DDI I.I.3) and the scriptural (and Boethian) claim that God made all things in number, measure and weight (DDI III.I.182; see Boethius, *Consolation* III.9). Number is the “prime exemplar of the things to be created” (DDI I.II.32).

Despite his admiration for mathematics Cusanus credits his friend and contemporary, Cardinal Giuliano Cesarini, for the insight that the precision of truth is unattainable with regard to things in this world (*De coniecturis* 1.2). In fact, the second book of *De docta ignorantia*, ostensibly about the created universe, is really aimed at demolishing the view that the traditional sciences of the quadrivium can yield accurate truth about the universe.

Curiously, however, this very limitation of mathematics in Cusanus is seen by the German historian of ideas Hans Blumenberg as actually a very modern trait. Blumenberg argues that the origins of the modern scientific worldview

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lie in medieval mysticism.³⁰ According to his thesis, Cusanus' real contribution is his recognition of the "self-restriction" of knowledge (as expressed in *docta ignorantia*) as an essential component of genuine scientific method:

It is a constitutive element of the modern age that it expands through restriction, achieves progressions through critical reduction: Renunciation of the principle of teleology discloses for the first time the full efficacy of the application of the causal category to nature; the elimination of the question of substance, and its replacement by the universal application of quantity, makes mathematical natural science possible; and renunciation of the phantom of the requirement of absolute accuracy made possible an exactitude that can set itself tolerances for its inaccuracy. The knowledge of the modern age was decisively rendered possible by a knowledge of what we cannot know.³¹

Blumenberg presents Cusanus as a modern on the basis that the knowledge of one's ignorance is a central element in the modern idea of science.³²

Indeed, it is true that Cusanus is preoccupied by the nature and limits of human knowledge. One can therefore speak of an epistemological, if not quite a subjective, turn in his work.³³ While he acknowledges the importance of incremental knowledge, where we proceed from the known to the unknown by precise inferences, genuine advances are made when we become aware of the limits of human knowledge. Thus, the lack of certain knowledge about the universe is not a contingent failing, but embedded in the uncertain and inexact nature of the universe itself. For humans to realize this is to free themselves to contemplate God.

Paradoxically, while Cusanus' stress on the limits of human knowledge is often seen as an anticipation of the modern epistemological turn (paradigmatically expressed in Kant), it is also profoundly traditional, following on from the Pauline and Augustinian tradition that sees all human reasoning as "conjectural" and as failing to achieve oneness with its object. There is undoubtedly a certain modernity in his recognition that perceptual knowledge is always perspectival; that sight, for instance, gives things from one side and under a certain aspect which brings a certain "otherness" (*alteritas*) into our knowledge. When one beholds a face, one does it from a particular angle (*De coniecturis* 1.11.57). But this is coupled with a traditional Platonic outlook, e.g. that there is always a gap between the intelligible ideal and the sensible thing. A pure circle is an ideal entity, a mental creation (*ens rationis*), but a visible circle always possesses a certain "otherness" (*De coniecturis*, 1.11.54). Cusanus' interest, however, is not in a modern celebration of the multiplicity of subjective perspectives but is in the more Neoplatonic project of overcoming perspectival limitation and "otherness" to gain intellectual oneness with the object itself.

Being one with the infinite one is the real problem. The infinite is precisely that which cannot be measured and which therefore cannot be an object of the mind as measurer.³⁴ In *De coniecturis* (*On Surmises*) 1.8.35, he writes: “Reason analyzes all things in terms of multitude and magnitude.” Every inquiry makes use of comparison and relation (*proportio*), but *proportio* indicates agreement in one respect, otherness in other respects (*DDI* 1.1.3). Number is needed to understand *proportio*, even though the precise relations between corporeal things surpasses human understanding. Reason is beset by “otherness”; only intellect, employed in a certain way, can gain oneness through a certain kind of self-negation and self-transcendence.

Life and writings

Cusanus was born in 1401 in Kues (now Bernkastel-Kues) on the Moselle river east of Trier.³⁵ He left home early to join the household of Count Theoderic of Manderscheid, who sponsored his education.³⁶ In 1416 he entered the arts faculty at the University of Heidelberg, but a year later transferred to the law faculty at Padua. Here he spent six years studying mathematics, astronomy, and physics, and became friendly with Giuliano Cesarini (1398–1444), later the cardinal to whom Cusanus dedicated his *De docta ignorantia*, and Paolo Toscanelli (1397–1482), the famous mathematician and astronomer, with whom he renewed contact in later life. He received his doctorate in law in 1423.

In 1425 he enrolled in the University of Cologne to study philosophy and theology before his ordination. The Council of Basel had begun in 1431 and Nicholas arrived there in 1432 as secretary to Ulrich von Manderscheid who was seeking election to the bishopric of Trier. Cusanus was initially a conciliarist but later shifted to the papal side. Somewhere between 1436 and 1440 he was ordained a priest and in 1437 he traveled to Constantinople to invite representatives of the estranged Orthodox Church of Byzantium to a council. While there he met the Emperor, the patriarch, and the monk Bessarion, but he also acquired some Greek manuscripts including the *Theologia Platonica* of Proclus. It was on his journey back to Venice that he had the vision which, he claimed, inspired his first philosophical treatise, *De docta ignorantia* (1440).

From the outset Cusanus was focused on the difficulty of gaining knowledge of God. An early sermon, *In principio erat verbum* (*In the Beginning was the Word*, 1438), already recognizes the immensity, unnameability, and unknowability of the divine.³⁷ His first short dialogue between a pagan and a Christian, *De Deo abscondito* (*On the Hidden God*, 1444/5) opens with the question: how does one seriously adore what one does not know?³⁸ It goes

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on to propose that by knowing that one does not know one has arrived at a kind of higher truth.

Between 1440 and 1444 Cusanus wrote *De coniecturis*, a companion piece to *De docta ignorantia*,³⁹ denying the possibility of exact knowledge. The mind as *imago Dei* proceeds through the conjectures it creates, just as God creates real things. Man is a microcosm of the universe and a “humanized God” (*deus humanatus*, *De dato* 102) or “second God” (quoting Hermes Trismegistus in *De beryllo* 7), themes later repeated by Pico della Mirandola.

In 1448 Cusanus was created a cardinal and given a titular church in Rome. In 1450 he was elected bishop of Brixen in Tyrol, although he did not take up residence there until 1452. In 1450, during a period of intense activity at Rome, he wrote a number of important scientific and philosophical works including *Idiota de mente* (*The Layman on Mind*), *De sapientia* (*On Wisdom*), *De staticis experimentis* (*On Experiments done with Weight-Scales*), *Transmutationes geometricae* (*Geometrical Transformations*), *Arithmeticum complementum* (*Arithmetical Compendium*) and *Quadratura circuli* (*Squaring the Circle*).

In 1453 Cusanus’ overall philosophical outlook was further confirmed when he read Proclus. He wrote his *De visione dei* (*The Vision of God*), *De mathematicis complementis* (*Complementary Mathematical Considerations*), *De pace fidei* (*The Peace of Faith*) and, in 1458, *De beryllo* (*On the Prism*), which comments at length on the manner in which Plato, Aristotle, and Dionysius interpreted God and his relation to created things.⁴⁰ Divine unity produces diversity just as a single ray shining through the prism is refracted into many parts. In this work, Cusanus insists – against Plato – that numbers are rational entities, mental constructs, which prove Protagoras’ saying that man is the measure of all things: “And so, Plato is seen wrongly to have concluded – when he saw that mathematical entities, which are abstracted from perceptible objects, are truer in the mind – that therefore they have another, still truer, supra-intellectual being” (*De beryllo* 56).⁴¹

In 1459 Cusanus was appointed vicar-general of Rome and the Papal States in the absence of the pope. At this time he wrote *Reformatio generalis*, a plan to reform the Curia.⁴² On his return from Rome in 1460 he was taken prisoner by Sigismund, duke of Austria. Cusanus was forced to grant his captor military control over Brixen, but after his release he returned to Italy and renounced these agreements. He never again visited Brixen, and withdrew from politics to a more contemplative form of life. In 1459 he wrote *De aequalitate* (*On Equality*) and *De principio* (*On the Beginning*) and in 1460 he wrote *Dialogus de possest*; in 1461 *De cribatione Alchorani* (*Sifting the Koran*), a study of the Koran. In 1462 he wrote *De li non aliud* (*On the Non-Other*) and in 1464 he wrote *De ludo globi* (*The Game of*

Spheres), *De apice theoriae* (*From the Summit of Contemplation*), and *De venatione sapientiae* (*The Hunt for Wisdom*), which recapitulates many of his earlier themes. *De ludo globi* uses the example of the movement of balls or spheres as metaphors for understanding the manner in which the soul moves the body. On 11 August 1464 Cusanus died in the town of Todi in Umbria.

Cusanus and philosophy

Nicholas was primarily a cleric and an ecclesiastical diplomat and therefore a dilettante in philosophy. He wrote at a time when the influence of the Aristotelian schools had come under increasing criticism, and his somewhat dismissive attitude to the Peripatetics is typical of the humanist age. He regards Aristotle as “very profound” (*DDI* 1.1.4) and to have been right to say the entire world divides up into substance and accident (*DDI* 1.18.53), but he also thinks of him as rather puffed up, wanting to show his greatness by refuting others (*DDI* 1.11.32). The Aristotelian Johannes Wenck von Herrenberg (c. 1390–1460), a theologian from Heidelberg, accused him of pantheism, and claimed Cusanus “cares little for the sayings of Aristotle.”⁴³ In his reply to Wenck, Cusanus himself regrets that the Aristotelian sect now prevails (*Apologia* 6).

As a Neoplatonist, Cusanus understands Aristotle to be a modified Platonist; Aristotle’s supposed differences from Plato are more verbal than real (*DDI* 11.9.148). Cusanus thinks the Peripatetics are simply wrong to deny the existence of Forms, understood as exemplars (*DDI* 11.9.147), but he accepts many aspects of the scholastic approach to finite beings: they are composed of substance and accident, matter and form, act and potency. Furthermore, he accepts the Aristotelian dicta that nothing is in the mind that was not formerly in the senses, that all knowing requires the mediation of a phantasm, and the Boethian formula that “whatever is received is received according to the mode of the recipient.” But he does not accept the Thomistic claim that genuine knowledge of God can be reached through the analogy of being. Crucially, Aristotle, although a “most careful and consistent reasoner,” failed to recognize the coincidence of contradictories (*De beryllo* 40) in his analysis of privation, although privation is really where contraries coincide.

Cusanus does (quite casually) make use of scholastic argumentation, although he is not committed to the syllogistic form. He seems closer in style to Augustine. Anselm, too, is in the background. For instance, Cusanus adopts Anselm’s conception of God in the *Proslogion* as “that than which nothing greater can be thought” or, in another formulation favored by Cusanus, “that

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than which nothing greater is possible" (*quo nihil maius esse potest*, DDI 1.2.5). God surpasses all understanding and according to Anselm is "something greater than can be thought" (*quiddam maius quam cogitari possit*, *Proslogion* xv), not just the "greater than everything" (*maius omnibus*) of Gaunilo (*Pro Insipiente* v). For Cusanus, following Anselm, God is "absolute being" (*esse absolutum*); He is actually everything that is possible or that He can possibly be. Cusanus' connection with Anselm is underscored in the *Apologia* where Cusanus remarks: "For no one was ever so foolish as to maintain that God, who forms all things, is anything other than that than which a greater cannot be conceived" (*Apologia* 8).⁴⁴ Cusanus builds on Anselm's intuition that God necessarily exists, that God is a necessary being; God is "absolute necessity" (DDI 1.22.69).

Cusanus may easily be situated in the emerging humanism of the northern Renaissance, associated not only with Padua but also with the new German universities of Cologne and Heidelberg, heir to the traditions of Albertus Magnus, Meister Eckhart, Dietrich of Freiburg, and others. At the University of Heidelberg, he encountered nominalism, which influenced his thinking in a number of ways, e.g. his conception of infinite divine power, and, in *De docta ignorantia* 1.5.14 and in *De beryllo*, his view of numbers as *entia rationis*. Cusanus exploits the nominalist emphasis on God's absolute power. God is in this sense pure possibility, or the sum of all possibilities. Indeed, Cusanus' specific originality consists in his use of nominalist claims about God's infinite and unlimited power, combined with the scholastic claim that God is pure *esse*, pure actuality, *actus purus*, "maximal actual being" (*maxima actualis entitas*, DDI 1.23.70), to make the claim that God is the infinite actualization of all possibilities, *est actu omne id quod possibile est* (DDI 1.5.14), God is "wholly in act" (*penitus in actu*). With regard to numbers, Cusanus' allegiance to nominalism is half-hearted at best. In *Idiota de mente*, he treats the numbers in our minds as images of exemplars in the divine mind, which suggests Platonism.⁴⁵ Indeed, he expresses himself close to the Pythagoreans, rejecting the view that number is an "abstraction that proceeds from our mind" (*Idiota de mente* 6) and maintaining that our numbers are "images" of divine numbers and that numbers are "the first exemplars of things." In *De mente* also he distances himself from nominalist theories of names and claims that there is a "natural name," which is more or less apt for the thing it names, rejecting the nominalist thesis of absolute conventionality of names.

At Padua Cusanus was exposed to Italian humanism and he both knew and was known to some of its central figures; his name appears often in the correspondence between Poggio Bracciolini and Niccolò Niccoli (1426–7) and he was involved in the humanist book-hunting endeavors of the time.⁴⁶

On the other hand, *contra* Cassirer, it is probably not the case that Cusanus had a major influence on Ficino or on Pico della Mirandola's *Oration on the Dignity of Man* (1486).⁴⁷ Ficino does mention him, but only once, in a letter to Martinus Uranius (Martin Prenninger) of 1489, alluding to "some speculations of Cardinal Nicholas of Cusa" (*quoddam speculationes Nicolai Cusii cardinalis*).⁴⁸ Likewise, Pico (1463–94) merely expressed an interest in visiting Cusanus' library at Cues.⁴⁹ But Cusanus' humanist credentials are not in doubt, especially his interest in Hermeticism. For instance, he frequently quotes Asclepius on the divinity of man: "For man is god, but not unqualifiedly, since he is man; therefore, he is a human god. Man is also world, but he is not contractedly all things, since he is man; therefore man is a microcosm, or a human world" (*De coniecturis* II.14.143).⁵⁰ Interestingly, however, seventeenth- and eighteenth-century philosophers tended to regard him as belonging to the *skeptical* tradition, with skeptical views concerning the finite created order.

But for our purposes he was a dedicated, if eclectic, Christian Neoplatonist in the tradition of Dionysius the Areopagite (pseudo) (and behind him, as Cusanus believes, St. Paul),⁵¹ seeking new ways to articulate the transcendence and infinity of the divinity, and, ultimately, to become one with the Infinite One. Cusanus sought to revitalize the Christian Platonic theological tradition, utilizing the scientific and artistic discoveries of his day – from the mathematics of infinite quantities and the nature of relative motion to the discovery of perspective in painting – to express an ancient and timeless wisdom, namely, the infinite and transcendent nature of the divine, and the way this challenges our contemplation. His twin insights are the infinity of the divine and the method of *docta ignorantia* as a way of expressing this infinitude utilizing the restrictions of finite reasoning. His reasoning closely follows that of Proclus and especially the *Mystical Theology* of Dionysius (Pseudo) in arguing from contradictions to the inexpressibility of the One. Thus he contrasts the Infinite One with all that is "other than" the One, leading him to make opaque and paradoxical assertions such as "the not other is not other than the not other" (*De li non aliud* 1). Similarly, his characterization of the divine as the "coincidence of opposites" (*coincidentia oppositorum*) is an attempt to set the divine beyond the oppositions that govern human finite rationality,⁵² thereby stressing the *finitude* of the human and the ultimate failure of the Promethean project of absolute scientific knowledge.

The infinity of the divine

Cusanus is interested primarily in finding appropriate ways to acknowledge and articulate the infinite nature of God. God is "absolute infinity" (*infinitas*

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absoluta, *De visione dei* 13): “Now according to the theology of negation, there is not found in God anything other than infinity” (*Et non reperitur in deo secundum theologiam negationis aliud quam infinitas*), (DDI 1.26.88).⁵³ All Cusanus’ philosophical treatises, dialogues and sermons should be read as spiritual exercises for conceiving the infinity and transcendence of God. In *De possest* he writes: “For after having very often held very many exceedingly deep meditations with myself, and after having very carefully sought out the writings of the ancients, I have ascertained that the ultimate and deepest contemplation of God is boundless, infinite, and in excess of every concept” (*De possest* 40).⁵⁴ The only way to approach this transcendent and incomprehensible infinity is to comprehend it “incomprehensibly.” Following Dionysius, Eriugena, Maimonides, and others, human knowledge cannot grasp the divine nature (DDI 1.16.44) because God transcends the oppositional concepts employed by human reason. In *De coniecturis* 1.5.20, Cusanus emphasizes strongly that no statement about God is appropriate because God is beyond opposites. Hence, in line with the negative theological tradition, Cusanus must find names for God that somehow express His inexpressible nature. Thus, he describes God, following Anselm, as the “Absolute Maximum” (or “Maximality,” *maximitas*, DDI 1.2.5).⁵⁵ Elsewhere, Cusanus characterizes God conceptually rather than scripturally as: “the Same” (*idem*, *De Genesi*), “Equality” (*aequalitas*, *De aequalitate*), “Is/Can Be” (*possest*),⁵⁶ “Power Itself” (*posse ipsum*), and “Not Other” (*non aliud*). Cusanus employs neologisms for God such as “being-unity” (*on-tas*, DDI 1.8.22), “*iditas*” (“thatness”), and, in *De venatione sapientiae*, *posse ipsum* (“the possible itself”).

Cusanus proposes “learned ignorance” (*docta ignorantia*) as the way to attain God in an appropriate way. The phrase itself is traditional and can be found in St. Augustine.⁵⁷ It is also ambiguous; it can mean a *cultivated* ignorance, i.e. one that has to be learned; or, a *wise* ignorance, an ignorance which bestows wisdom or learnedness. Both interpretations have been defended by scholars, and indeed both meanings are present in the English words “learned” and “learnèd.”

Cusanus frequently invokes the claim (from Plato and Aristotle) that philosophy begins in wonder or amazement (*admiratio*).⁵⁸ All humans desire to know, but exact knowledge is impossible, “precise truth inapprehensible” (DDI 1.2.8). Truth can only be grasped with a degree of “otherness” (*De coniecturis* 11.6.101). He declares – in sympathy with Socrates – that in a certain sense “to know is to be ignorant” (*scire est ignorare*, DDI 1.2). His starting point is self-aware ignorance: “the more he knows that he is unknowing, the more learned he will be” (DDI 1.1.4). He proposes a new “science of ignorance” (*scientia ignorantiae*, *idiotia de sapientiae*, or *doctrina*

ignorantiae, DDI II. *Prol*) or “sacred ignorance” (*sacra ignorantia*, DDI I.26.87; also *Apologia* 22). It is not a kind of discursive reasoning, which even hunting dogs have, but rather is a kind of seeing with intellect (*intellectuabilitas*, *Apologia* 14), which “transcends the power of reason” (*De beryllo* 1). Reason (which Cusanus associates very closely with mathematics) is bound to the principle of contradiction and false reason results in the “coincidence of opposites” that is anathema to it *qua* reason (*De coniecturis* II.1.76). Human reason is finite and cannot comprehend the infinite (*De coniecturis* II.3.87). On the other hand, it proceeds in finite steps. This increase in its understanding is achieved through the use of its own created entities, its “conjectures” or “surmises” (*De coniecturis*, *Prologue*; also II.9.117) or “symbolisms.”⁵⁹ The human mind is the form of this world of conjectures. As he later writes in *De beryllo*: “For just as God is the Creator of real beings and of natural forms, so man is the creator of conceptual beings and of artificial forms that are only likenesses of his intellect, even as God’s creatures are likenesses of the divine intellect” (*De beryllo* 7).⁶⁰ These are aids or symbols that help us toward a truth that is in fact beyond the grasp of reason.

Cusanus claimed in his letter to Cardinal Cesarini that this “learned ignorance” was discovered in a road-to-Damascus experience while at sea between Constantinople and Venice between 27 November 1637 and 8 February 1438. At this time, he claims, he learned to “embrace incomprehensible things incomprehensibly” (*incomprehensibilia incomphensibiliter amplecterer*, DDI 263).⁶¹ Cusanus indicates a strategy in the *Prologue* whereby he acknowledges the “boldness” (*audacia*) of the moves that led to learned ignorance and points out that the monstrous moves us. Here he is recalling Dionysius’ and Eriugena’s views that the use of monstrous images has its proper place in theology in preparing the mind to move beyond the familiar.

Cusanus undoubtedly found the themes of divine transcendence and immanence in Eriugena’s *Periphyseon*. In *Periphyseon* Book One, Eriugena characterizes God as “without beginning” (*sine principio*, *Periphyseon* 1.451d), “the infinity of infinities” (*infinitas infinitorum*, *Periphyseon* 1.517b), “the opposite of opposites and the contrariety of contraries” (*oppositorum opposition, contrariorum contrarietas*, *Periphyseon* 1.517c), and “above being and non-being.”⁶² Cusanus too calls God “the opposite of opposites” (*oppositio oppositorum*, *De visione dei* 13), but attributes this phrase to Dionysius’ (*Divine Names* v). He goes on to emphasize that God as pure Oneness is beyond and “precedes all oppositeness” (*De coniecturis* 1.5.21).⁶³

Cusanus emphasizes that the transcendent infinity of God means that there is no analogy or proportionality between finite and infinite. The

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transcendent deity or Godhead is not approachable through any kind of analogical reasoning. The infinite God is “incomprehensible” and “inapprehensible” (*inapprehensibilis*, DDI 1.2.8), dwelling in “inaccessible light” (*lux inaccessibilis*). Human minds work using oppositions and these do not apply to God. God cannot be understood on the basis of any created thing. As he says in his *Apologia* 17 what is caused cannot be raised to the status of the cause. We nevertheless have to move from the image to the exemplar. All forms of proportion or adding one thing to another will not give us the infinite. The “method” of attaining the infinite will be to grasp it in terms of the very oppositions and contradictions that are the basis of our human rational powers (“reason cannot leap beyond contradictories,” DDI 1.24.76). Thus, *possest* (actualized possibility) as a term for God surpasses reason and awakens the intellect to a mystical vision of God.

Cusanus begins with the Augustinian, Eriugenian and Thomistic formulations of God as the “cause of all things,” the “being of beings” (*entitas rerum*, DDI 1.8.22), or “being of all being” (*entitas omnis esse*, DDI 1.23.73), and the “form of forms” (*forma formarum*, DDI 11.2.103).⁶⁴ In Eckhartian fashion, he then denies that God is “this or that.” God is not so much being or a substance as, following Dionysius “more than substance” (DDI 1.18.52). Following Eriugena, Cusanus calls God *nihil omnium*, the nothing of all things (DDI 1.16.43), who is also *omnia simul*, all things simultaneously (DDI III.3.197).

As a Neoplatonist, Cusanus holds that all things are contained or “enfolded” in God but that they are also “unfolded” in the universe. This is the dialectic of *complicatio* and *explicatio*, terms which Cusanus takes from Thierry of Chartres: “as enfolded in God all these things are God; similarly, as unfolded-in-the-created-world they are the world” (*omnia illa complicate in deo esse deus, sicut explicite in creatura mundi sunt mundus*, *De possest.* 1.9).⁶⁵ Creatures are either enfolded in the One by *complicatio*,⁶⁶ or unfolded from the One in *explicatio*.⁶⁷ God is the *unitas complicans*. Corporeal oneness is the most “unfolded” form of oneness. God is, according to *Idiota de mente* 4, “the enfolding of enfoldings.”⁶⁸ Cusanus in his *De coniecturis* also claims to find these concepts in Dionysius. Cusanus maintains that this dialectic of *complicatio* and *explicatio* cannot be understood and surpasses the mind (DDI 11.3.109). Cusanus applies the dialectic of *explicatio* and *complicatio* even to explain the relationship between faith and understanding: in faith all understandable things are enfolded, whereas in knowledge they are unfolded (DDI III.11.244).

Cusanus acknowledges that, in truth, “God transcends understanding and *a fortiori* every name.” Nevertheless, like many medieval Platonists (one thinks of Eriugena here), Cusanus accepts the Neoplatonic account, but

with a more direct familiarity with Plato's *Parmenides* and Proclus, of the divine as simple "oneness" (*unitas*, DDI 1.24.76), "infinite oneness" (*unitas infinita*, DDI 11.3.109), although it is not a oneness to which "otherness" is opposed. God is "all in all" (*omnia in omnibus*, 1 Cor. 15:28). God is pure identity. Indeed, in God even diversity (*diversitas*) is identity (DDI 11.9.149). Everything not one is subsequent to the One, and belongs to "otherness" (*alteritas*), the sign of multiplicity and "mutability" (*mutabilitas*, DDI 1.7.18).⁶⁹ Otherness is defined as "one thing and another" (DDI 1.7.18). All things that are not absolutely one are other than the one. The other is always temporal and not eternal. Whatever is finite has a beginning and an end (1.6.15). The pluralities of things "descend" from the infinite oneness (1.5.14) and cannot exist independently of it. They have *abesse* or being-from (DDI 11.3.110) rather than *esse*, being; i.e. their being is always a dependent being. Creatures receive the infinite form of the divine in a finite manner. The creature, then, is *infinitas finite*, finitely infinite.

God creates only in so far as he is One and what He creates are unities (DDI 11.2.99). God as a pure identity cannot partake of difference or otherness. Otherness is outside of and subsequent to the One. Otherness is responsible for plurality. Otherness is not caused and is identical with contingency (*contingentia*). For Cusanus, otherness does not belong to the essence of a thing (*Idiota de mente* 6).⁷⁰ It is not a positive principle (*De visione dei* 14).⁷¹ Otherness is associated with mutability: "For otherness is identical with mutability" (*Alteritas namque idem est quod mutabilitas*, DDI 1.7.18).⁷²

As Cusanus claims, "All perceptible things are in a state of continual instability because of the material possibility abounding in them" (DDI 1.11.31).⁷³ Corruptibility, divisibility, imperfection, diversity, and plurality: these are all marks of the universe, but they have no positive cause. They are, as it were, the result of pure contingency and of absence or being-from. A finite thing can receive an infinite form only contractedly (DDI 11.2.104).

There are some complexities in Cusanus' view of the otherness and multiplicity of creation. He accepts that God is one and that his creative act is undiminished; nevertheless creation is plural. In *Idiota de mente*, Cusanus maintains that plurality comes from God's way of thinking: "The plurality of things comes into being because the divine mind understands one thing in one way and another thing in another way" (*Idiota de mente* 6.94). Cusanus is never entirely clear whether plurality or multiplicity emerges from the divine power directly or whether it is the result of "otherness." This is a typically Neoplatonic problem, and in his approach to it Cusanus simply restates the problem rather than solving it.

Although believers must approach God through affirmative theology (DDI 1.26.86), this must be tempered with negative theology, or else the

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worship of the divine will become “idolatry” (*idolatria*). Believers must realize that if God is light, he is not a corporeal light to which darkness is opposed but an infinite and most simple light (*DDI* 1.26.86). God must be approached symbolically (*aenigmatica*) or through images (*phantasmata*, *De possest* 1.19). Here numbers and illustrations from arithmetic, physics, astronomy, and geometry are of the greatest importance. Visible things are images of invisible things and from created things we can grasp the Creator in a mirror and symbolically (*DDI* 1.11.30). Cusanus wants to take finite mathematical relations and proportions and using a special kind of transformation (*transfere*) to think of them infinitely (*DDI* 1.12.33). Thus, to give an example, Anselm considered God to be *rectitudo* and Cusanus proposes to think of *rectitudo* symbolically as a straight line. Others have considered God as a circle. But Cusanus wants us to intellectually realize that, taken to the infinite, an infinite line, triangle, circle, and sphere will all coincide (*DDI* 1.13.35). All essences of distinct things actually coincide when taken to the infinite in the divine. Thus “by means of mathematical example” (*exemplo mathematico*, *DDI* 1.24.74) the infinite divine being can be comprehended in learned ignorance.

The universe is best understood by number. Without number there would be no otherness: “For if number is removed, the distinctness, order and comparative relation, and harmony of things cease” (*DDI* 1.5.13).⁷⁴ Number is responsible for the *proportio* and harmony between things (*DDI* 1.5.13). Number encompasses all things related proportionally. Indeed all inquiry moves according to proportion and relation, but – and this is crucial – there is no proportion between finite and infinite (*DDI* 1.1.3). Number belongs not only to quantity, but to all things that can agree or differ substantially or accidentally. There would be no distinctness between things were it not for number; even between two equal things, one will be a duplicate of the first (echoing Proclus). Furthermore, every actual number is finite and hence no number can be the maximum. Otherness is always “subsequent to oneness” (*DDI* 1.7.18). Between two things there will at least be “otherness” (*DDI* 1.7.19). The number 2 is both “separation (*divisio*) and a cause of separation” (*DDI* 1.7.20). Union (*unio*) and oneness are prior to twoness as eternity is prior to finitude and identity is prior to difference.

Koyré credits Cusanus with breaking down the hierarchy of the medieval closed universe and of transferring from the divine to the universe the mystical pseudo-Hermetic notion of unity within infinity: “We cannot but admire the boldness and depth of Nicholas of Cusa’s cosmological conceptions which culminate in the astonishing transference to the universe of the pseudo-Hermetic characterization of God: ‘a sphere of which the center is everywhere and the circumference is nowhere.’”⁷⁵ In *De docta ignorantia* 1.12.5, Cusanus says the divine is an “infinite sphere.”⁷⁶ In fact, Cusanus had

found this metaphor in Eckhart, who in turn had borrowed it from the popular compilation, *Liber XXIV philosophorum* (*The Book of the Twenty Four Philosophers*), whose second definition states: “Deus est sphaera infinita cuius centrum est ubique, circumferentia nusquam.”⁷⁷ This is a powerful image and Cusanus exploits it as an imaginative or symbolic “conjecture” about the divine. But it is only one among many images of united contradictories which are found throughout his work.

The coincidence of contradictories

Cusanus does not actually say in the text of *De docta ignorantia* that God is the “coincidence of opposites” (*coincidentia oppositorum*), as Jasper Hopkins has pointed out.⁷⁸ But, in his dedicatory letter, he speaks of God as that “where contradictions coincide” (*ubi contradictoria coincidunt*). In his next major work, *De coniecturis* II.1, however, God is described as *beyond* the coincidence of contradictories. In general, Cusanus does not distinguish between “opposites” (or contraries) and “contradictories.” Echoing Dionysius and Eriugena (“opposite of opposites without opposition”), God is described as “beyond all opposition” (*supra omnem oppositionem*, DDI I.4.12), “free of all opposition” (DDI I.4.12), “beyond all affirmation and negation” (*super omnem affirmationem et negationem*, DDI I.4.12), “the opposition of opposites” (*oppositio oppositorum*, *Apologia* 41, citing Dionysius’ *Divine Names* v.10). For Eriugena, God is the opposite of opposites without opposition. God reconciles all oppositions and indeed is beyond all oppositions. Furthermore, the Maximum, though it may be thought of as being, is not opposed to non-being (DDI I.6.16).

Creation is not one because it descends from unity, but neither is creation many; rather it is (in a way reminiscent of Plotinus’ *hen-polla*) “both one [*una*] and many [*plura*] conjunctively [*copulative*]” (DDI II.2.100). Creation, however, is seen as a descent from oneness to otherness (see figure 9.1, from *De coniecturis* I.10).

By partaking in the One all things are what they are (*De coniecturis* II.1.71). The being of creatures is *ab-esse*, “being-from,” dependent being, or *ad-esse*, “being-to,” accidental being. The diversity of creatures is a product of pure contingency. Cusanus agrees with Augustine, Eriugena, and Eckhart that, considered in themselves, all creatures are pure nothingness: “Every creature, we surmise, lies between God and nothing” (*De coniecturis*. I.9.42). Cusanus’ difficulties in articulating the relation between divine form and created form in part stem from his refusal to accept the Aristotelian–Thomistic account of substantial form. He remains a Platonist with regard to his account of form. This Platonism is

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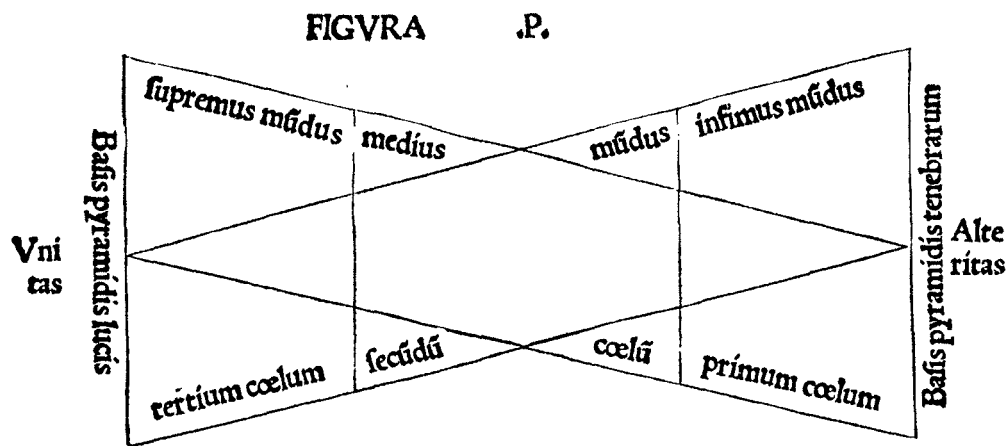


Fig 9.1 Source: *Opera Nicolai Cusae Cardinalis*, Paris 1514, vol. 1, fol. XLVI verso

Augustinian, in the sense that he holds that the essence of anything is higher in the soul than it is in the thing: “the essence of a hand exists more truly in the soul than in the hand” (*De possest* 1.12). Moreover, the forms of all things are eternally one in God (*De possest* 1.22).

Conclusion

Nicholas of Cusa is a truly transitional figure. At heart he is a conservative Platonic theologian, seeking names for the infinite God. His aim is always to show the finitude of human knowledge, and to instruct us in our ignorance. This is the “instruction of ignorance” (*doctrina ignorantiae*, *DDI* II *Prol.* 90). On the other hand, his entirely medieval stress on reason as a measure leads him to an emphasis on the primary function of reasoning as measuring and quantifying. Hence he tends to equate the processes of reason with the processes of mathematics (see *De coniecturis* II.2.80) and in that sense is anticipating the use of mathematical reason in seventeenth-century scientists and philosophers. Again, anticipating Galileo, he sees the book of nature as that in which the intention of the divine mind is inscribed (*De beryllo* 66). Cusanus’ meditation on the infinite, his Platonist cosmology, and his appreciation of mathematics as the most exact way of contemplating the inexact created order, certainly helped prepare the intellectual world for the Galilean revolution.

NOTES

1. His works are cited in this chapter wherever possible from the Heidelberg Academy edition, cited here as Nicholas of Cusa 1932–. Over twenty volumes have now been published, including several volumes of sermons (he wrote over 300 sermons in all). The *Acta Cusana* series of the Heidelberg Academy

(Hamburg: Felix Meiner, 1976–) also publishes source material on his life. There is an active Cusanus Gesellschaft in Germany and an American Cusanus Society, which produces an informative newsletter. A recent guide is Bellitto, Izbicki, and Christianson 2004.

2. Copleston 1953, 231.
3. Haubst 1988, 6.
4. Cassirer 1927.
5. Cassirer 1911, 1: 38.
6. Koyré 1957.
7. Gadamer 1970, 39–48.
8. Blumenberg 1985.
9. Beierwaltes 1980.
10. Harries 1975, 5–15. See also Harries 2001.
11. See Hopkins 2002, who reviews sixteen theses attributed to Cusanus that have a modern ring, including claims that time, space and the categories belong to the mind. Hopkins sees him as “the first German philosopher” and as a modern philosopher but not as “father” of modern philosophy, which he maintains is Descartes.
12. Blumenberg 1985, 484.
13. In 1469 the Italian humanist Giovanni Andrea de’ Bussi (1417–75), personal secretary to Cusanus from 1458 to 1464 and a pioneer of printing in Italy, eulogized him in the preface to his edition of the first volume of Jerome, calling Cusanus the most learned of men and referring specifically to his interest in the recently invented sacred art of printing.
14. Nicholas of Cusa, *De docta ignorantia*, in Nicholas of Cusa 1932 (vol. 1, ed. E. Hoffmann and R. Klibansky); English translation in Nicholas of Cusa 1985. Hereafter referred to as *DDI* followed by the book, chapter, and paragraph number.
15. Von Weizsäcker 1964.
16. In 1429 he even discovered a manuscript containing twelve previously unknown plays of Plautus. On Cusanus’ library see Bianca 1980 and Bianca 1993.
17. See Cranz 2000a and 2000b.
18. Dionysius is cited several times in the *Apologia*. Cusanus in fact refers to Dionysius twice in his *De concordantia catholica* of 1433, but these references might have been drawn from indirect sources; see Hankins and Palmer 2007 For Dionysius’ *Fortuna* in the Renaissance.
19. See Beierwaltes 1994. Besides Eriugena’s translations of Dionysius, Cusanus, at the very least, was familiar with *Periphyseon* Book I, which he owned and annotated in manuscript (see Eriugena MS), as well as the *Clavis Physicae* of Honorius Augustodunensis (see Honorius MS), a compendium of Eriugenian excerpts, and the homily *Vox spiritualis* (which passed under the name of Origen).
20. Albertus Magnus 1972 (*Super Dionysium De divinis nominibus*), cited in *De Beryllo* 17.
21. Translated in Nicholas of Cusa 1984, 466.
22. For a full list of Cusanus’ Platonic references, see Führer 2002.
23. See Proclus 1864, VI, col. 1074, translated in Proclus 1987, 427: “So then it is more proper to reveal the incomprehensible and indefinable cause which is the One through negations.”

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24. Descartes, letter to Chanut, 6 June 1647, in Descartes 1971–, v: 50. English translation from Descartes 1991, 319–320.
25. See Harries 1990.
26. Koyré 1957, 6.
27. Descartes 1971, v: 52; Descartes 1991, III: 320.
28. Copenhagen and Schmitt 1992, 184.
29. See Zimmermann 1852.
30. Blumenberg 1985, 483–547.
31. Ibid., 500.
32. Ibid., 499. Blumenberg’s thesis has been extensively analyzed and criticized by Elizabeth Brient 2002.
33. Miller 2002.
34. Cusanus borrows from Aquinas, *Summa Theologiae* 1a, q.11, art. 2, the false etymology of *mens* as related to *mensura*.
35. According to Meuthen and Hallauer 1976, entry no. 1, Nicholas was born before 12 April 1401.
36. Jasper Hopkins doubts claims of earlier scholarship linking Cusanus with Deventer; see Hopkins 1987.
37. In Nicholas of Cusa 1932– (vol. xvi, 1, ed. R. Haubst, M. Bodewig, and W. Krämer, 1970), 3. See Flasch 1998, 21–6.
38. In Nicholas of Cusa 1932– (vol. iv, ed. P. Wilpert, 1959); translated in Nicholas of Cusa 1994, 131–7.
39. In Nicholas of Cusa 1932– (vol. iii, ed. J. Koch, K. Bormann, and H. G. Senger, 1973); translated in Nicholas of Cusa 1998, 163–257.
40. The latter in Nicholas of Cusa 1932– (vol. xi, ed. H. G. Senger and K. Bormann, 1988); translated (*On the Prism*) in Nicholas of Cusa 1998, 792–838.
41. Translated in Nicholas of Cusa 1998, 818.
42. Text and translation in Nicholas of Cusa 2007.
43. *De ignota litteratura* 22; Latin text edited in Nicholas of Cusa 1984, 23.
44. Translated in Nicholas of Cusa 1984, 464.
45. In Nicholas of Cusa 1932– (vol. v, ed. L. Baur, 1937); translated in Nicholas of Cusa 1989, 71.
46. Bracciolini 1974.
47. Cassirer 1972, 83.
48. See Kristeller 1965a, 66.
49. Garin 1937, 36n.
50. Translated in Nicholas of Cusa 1998, 236.
51. In his late dialogue *De Possest* (1460), translated in Nicholas of Cusa 1986, 64–163, Cusanus invokes St. Paul at 2 Cor. 4:18 for the view that “invisible things are eternal. Temporal things are images of eternal things” (*De Possest* 2).
52. Blumenberg 1985, 490.
53. Translated in Nicholas of Cusa 1985, 46.
54. Translated in Nicholas of Cusa 1986, 934.
55. *Maximum* as a term for God is found in Anselm, *Monologion* 1, although Cusanus himself claims (*DDI* 1.16.43) to have found it in Dionysius’ *Mystical Theology*.
56. *De Possest* 14, translated in Nicholas of Cusa 1986, 921. Cusanus explains that the term *possest* is drawn from *posse* (“can be”) and *est* (“is”) to convey the sense

- that possibility exists absolutely actually in God. Hopkins translates *possest* as “actualized-possibility.” God is actually all that is possible, He is the fullest actualization of all possibilities.
57. The phrase can be found in Augustine’s *Epistle* 130, where he speaks of humans possessing a “learned ignorance” through the spirit. Cusanus himself frequently claims the phrase comes from Dionysius (see *Apologia* 12).
 58. See *Idiota de mente* 1.1, translated in Nicholas of Cusa 1989, 41. For the claim that philosophy begins in wonder, see, for example, Plato, *Theaetetus* 155d, and Aristotle, *Metaphysics* 1.2, 982b. See also Cusanus’ *De coniecturis* 11.11.
 59. There are different kinds of surmise – sensible, rational and intellectual – with differing degrees of proximity to truth (*De coniecturis* 11.9.117).
 60. Translated in Nicholas of Cusa 1998, 794.
 61. Translated in Nicholas of Cusa 1985, 158.
 62. This passage is also contained in Honorius’ *Clavis Physicae* (see n. 18, above).
 63. See also *Apologia* 15; *De li non aliud* 19. Cusanus recognizes the concept of a unity prior to opposites in Proclus’ *Commentary on Plato’s Parmenides* (Proclus 1864, VI, col. 1077).
 64. Also found in Thierry of Chartres’ *Lectiones* 11.38 (see Thierry of Chartres 1971).
 65. Translated in Nicholas of Cusa 1986, 918.
 66. Compare Anselm: “You [God] fill and encompass all things” (*Tu ergo imples et complecteris omnia*, *Proslogion* XX).
 67. Cusanus’ *explicatio* is similar to Eriugena’s *processio* or *proodos*, see Riccati 1983.
 68. Translated in Nicholas of Cusa 1989, 65.
 69. Cusanus takes this from Thierry of Chartres 1971, *Lectiones* 1 33: “for where there is alterity there is plurality” (*nam ubi alteritas ibi est pluralitas*). Boethius in his *De Trinitate* 1. 6 asserts that “alterity is the principle of plurality” (*principium pluralitatis est alteritas*) and Thierry develops this in his two *Commentaries on Boethius*, which Nicholas knew. For Thierry *alteritas* descends from the One and is identical with matter.
 70. Translated in Nicholas of Cusa 1989, 74–5.
 71. See McTighe 1990.
 72. Nicholas of Cusa 1985, 13.
 73. *Ibid.*, 18.
 74. *Ibid.*, 10.
 75. Koyré 1957, 18.
 76. See Mahnke 1937 and Harries 2001.
 77. Anonymous, 1989, esp. pp. 93–6. The editor of this work, F. Hudry, traces it back to the lost *De philosophia* of Aristotle and provides a helpful list of discussions of God as a sphere in Marius Victorinus’ *Adversus Arianum* 1, 60, and elsewhere, but notes that the description of God as *infinite* sphere seems unique to the *Liber XXIV philosophorum*.
 78. Nicholas of Cusa 1985, 6.