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3

Platonism and Philosophical Humanism on the Continent

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Historical Background

In the mid-thirteenth century, professors at the relatively new university in Paris were troubled by the popularity of the Aristotelian philosophy. Some considered it frighteningly anti-Christian. The reaction was to condemn a number of its most problematic claims. But despite the condemnations of 1270 and 1277, a thoroughly Christianized Aristotelianism won the philosophical contest and quickly became the pedagogical basis of the university curriculum in Paris, and in the other universities developing in Europe at the time. Scholastic Aristotelianism formed the philosophical core of university education on the continent through most of the seventeenth century. Despite the spectacular ascendancy of the Aristotelian philosophy in the twelfth and thirteen centuries, it is important to recognize that medieval Europe, both before and after the victory of scholasticism, was thoroughly familiar with Platonism. Whether the philosopher is the early Christian saint, Augustine of Hippo (354–430), the Jewish theologian, Maimonides (1135–1204), the English scholastic, Anselm of Canterbury (1033–1109), or the great Thomas Aquinas himself (1225–74), the medieval conception of the world and God is thoroughly rooted in Platonist ideas and assumptions. Obviously medieval philosophers differ greatly both in the degree of their endorsement of Platonic doctrines and in the explicitness of their commitment to Platonism, but Platonist views about God, nature, causation, and knowledge are part of the intellectual currency of medieval Europe.

Despite the ubiquity of Platonism in medieval Europe, it is enormously difficult to identify its precise elements and trace its history. There are several related problems, each of which is relevant to an account of early modern Platonism. Already in late antiquity, followers of Plato and Aristotle assumed that these philosophies were in fundamental agreement, and important commentators like Porphyry (*c.* 232–*c.* 306) proposed a Platonism that was thoroughly mixed with Aristotelianism. This sort of Aristotelianized Platonism formed the intellectual background to medieval Europe, and informed the theological and doctrinal commitments of the early Christian church. The vitality of Platonism in the Latin west is striking, especially since so very few works by Plato himself were available. Only the *Meno*, the *Phaedo*, some of the *Timaeus*, and a piece of the *Parmenides* existed in Latin translation, and only

the *Timaeus* was widely obtainable. Dialogues as important as the *Republic, Symposium,* and *Theaetetus* were unavailable to the Latin west and had to be "rediscovered" in the Renaissance. Moreover, the Aristotelianism imported to Europe from the Arab world in the thirteenth century was itself tainted with Platonism. Scholasticism resulted from the blending together of this Platonized Aristotelianism and medieval Christianity which was itself rooted in Platonism. Besides the fact that most scholastics based their interpretations of Aristotle's texts on Latin translations, there were a number of pseudo-Aristotelian works, some of which were thoroughly Platonic (for example *Liber de causis*). Thus, despite the philosophical subtlety of many scholastic thinkers and despite their commitment to the Philosopher, they promulgated an Aristotelianism that had been mixed with a good deal of Platonism. Finally, it is an awkward truth about prominent Platonists that they put forward elaborate theories that are sometimes only remotely connected to the texts of the Athenian philosopher himself. In a sense, from late antiquity through the height of scholasticism, Platonism appears to be everywhere while the historic Plato seems nowhere to be found.

For our purposes, it will be important to distinguish between the views of Plato and those of his followers. Traditionally, scholars have tended to distinguish between Platonism and Neoplatonism where the latter applies to the class of thinkers inspired by Plato and his works. Sometimes "Neoplatonism" has been used in a pejorative sense where the underlying assumption is that the Neoplatonic philosopher was not quite up to a thorough understanding of Plato or (for example in the case of the important Renaissance commentator, Marsilio Ficino) had his own specific Christian agenda. But recent scholars have come to be dissatisfied with this way of making the distinction. It is noteworthy that scholastic philosophers bear the same sort of relation to the historic Aristotle that most of the Neoplatonists bear to Plato. In the same way that Aristotelians like Aquinas, Scotus, and LEIBNIZ (chapter 18) thought that they were explicating the real views of Aristotle, so did Platonists like Plotinus, Ficino, and Leibniz think they were exploring the real doctrines of Plato. With these historical facts in mind, I will refer to those doctrines which can reasonably be attributed to Plato himself as "Platonic," and to those that evolved during the long course of medieval philosophy as "Platonist." Nor do these designations yield neat and tidy categories. Rather, many of the thinkers whom we consider paradigm examples of committed scholastics (for example Aquinas) accept Platonist tenets; some of the prominent Platonists in the history of philosophy (for example Marsilio Ficino) happily endorse Aristotelian distinctions; while some prominent Renaissance and early modern figures (for example Giovanni Pico della Mirandola, Leibniz) are committed to combining key Aristotelian doctrines with central Platonist views. However odd it may seem to us now, many Renaissance and early modern thinkers believed that the philosophies of Plato and Aristotle could (and should) be made to cohere.

Eclecticism

As these introductory remarks suggest, the task of tracing the history of Platonism in western thought is enormously problematic. Besides the variety of Platonisms and

Aristotelianisms, medieval Europe inherited Stoicism, Epicureanism, Skepticism, Atomism, and sundry other ancient traditions. These ideas were combined and mixed together into philosophical systems whose authors were often ignorant of their original sources. Augustine is a case in point. In Book VII (sect. 9 (15)) of the *Confessions*, when he describes the crucial role that the books of the Platonists played in his epistemological journey toward God, he was unaware that along with the Platonist philosophy of Plotinus (205–71) he was absorbing elements of Stoicism and Aristotelianism. While scholars have begun to identify the Stoic and Aristotelian sources for some of Augustine's views, neither he nor his contemporaries were in a position to do so.

Given our interests, it is especially important that the history of medieval and Renaissance Platonism is fundamentally eclectic in the sense that philosophers were prepared to combine ideas from a variety of sources. Like Augustine, many thinkers considered the truth to be Christian, and yet they were prepared to borrow materials from any available pagan source in order to construct a philosophy consistent with Christianity. Platonism was one of those sources. Dante Alighieri (1265–1321) offers a striking example of this tendency. In his *Divine Comedy*, Dante must traverse hell with his guide, Virgil, before finding his way to paradise and God. In limbo he meets the great pagan thinkers: first the poets and then the philosophers. He writes about the latter:

> When I had raised my eyes a little higher,
> I saw the master of the men who know,
> seated in philosophic family.
> There all look up to him, all do him honor:
> there I beheld both Socrates and Plato,
> closest to him, in front of all the rest;
> Democritus, who ascribes the world to chance,
> Diogenes, Empedocles, and Zeno,
> and Thales, Anaxagoras, Heraclitus;
> I saw the good collector of medicinals,
> I mean Dioscorides; and I saw Orpheus,
> and Tully, Linus, moral Seneca;
> and Euclid the geometer, and Ptolemy,
> Hippocrates and Galen, Avicenna,
> Averroës, of the great Commentary.
> (Canto IV, lines 130–44)

Although some of Dante's contemporaries might have disagreed with his placement of Aristotle at the head of the "philosophic family," most would have endorsed the idea that the main figures in the history of philosophy stood in close relation.

Philosophical Humanism

The features, goals, and sources of Renaissance humanism have been much discussed. Whatever its origins, by the second half of the fifteenth century in Florence, Italy, humanism was a flourishing intellectual tradition. Although there continue to

be scholarly debates about the movement as a major component in Renaissance cultural, political, and social history, we will ignore these topics and move directly to the humanist assumptions particularly relevant to early modern philosophy. First and foremost, many philosophical humanists believed that the ancient texts were a treasure-trove of truths which could be combined into a single unified philosophy. Because the doctrines proposed in the texts (many of which had been rediscovered) of even the most prominent ancients (for example Plato and Aristotle) did not obviously cohere, humanists often engaged in elaborate interpretative schemes. Many practiced and preached what might be called *conciliatory eclecticism* where the basic idea was that the major schools of philosophy could be combined to form a coherent philosophical system. Most used the ancients as their primary source, but some extended their eclectic scope to include more recent authors. For such conciliators, the assumption was that the diverse philosophical traditions were not as incompatible as they at first appeared; the goal was to forge a reconciliation among the worthy schools; the result was a mixture of ancient and modern ideas; and the hope was that the proper synthesis would effect peace among contemporary philosophers.

The early Renaissance philosopher, Giovanni Pico della Mirandola (1463–94), formulates one of the defining statements of Renaissance eclecticism in his *On the Dignity of Man* of 1486. Pico demands that we not devote ourselves "to any one of the schools of philosophy" and notes that "it was a practice of the ancients to study every school of writers, and if possible, not to pass over any treatise." He declares: "I have resolved not to accept anyone's words, but to roam through all the masters of philosophy, to investigate every opinion and to know all the schools." According to Pico, each philosophical tradition had a share of the truth so that once the truths in each were discovered, they could be combined into one comprehensive and true philosophy. One of the main points of his project was to show that "the philosophies of Plato and Aristotle should be reconciled" and "a concord" between the two systems effected (*On the Dignity of Man*, 21–4, 33). In fact, Pico's texts are more steeped in Platonism than Aristotelianism, but it is important that unlike many of his contemporary humanists he speaks favorably of Aristotle and the scholastics. He was prepared to add Aquinas, Scotus, Avicenna, and Averroës to his eclectic mixture. Pico was also the most prominent humanist to include Jewish and kabbalistic teachings in his syncretist vision.

For most Renaissance conciliatory eclectics, the philosophy that they proclaimed had a religious goal: because they assumed that one truth "flowed through" all philosophical schools and that this truth was Christian, they firmly believed that the ancient pagan texts contained Christian truths. Two obvious questions faced the conciliatory humanist: if there is a single truth to be discovered within the ancient philosophical schools, then why had it not been previously discovered; and if the truth is fundamentally Christian, then how did the philosophies of pagans like Plato and Aristotle come to contain so much of it? In answer to the first question, most Renaissance and early modern humanists believed that they were able to excavate the long-buried truth because of newly developed intellectual abilities. Many Renaissance scholars believed that because they were equipped with new linguistic and philological tools and with a much wider collection of ancient texts, they were able

to study more accurately the whole history of philosophy. For example, Renaissance thinkers frequently proclaimed that the real philosophy of Aristotle was very different than the verbose scholastism of the dim-witted schoolmen. By the seventeenth century, many Protestant thinkers had come to believe that because of the insights afforded by the new theology, they were able to recognize the true worth of previously misunderstood ancient ideas.

As for the second question, humanists offered two distinct answers. Many accepted an account of history that allowed them to sanctify pagan learning. This historiography, usually called the *prisca theologia* or ancient theology, was a brilliant melding of religion and philosophy. The story runs roughly as follows: Moses did not write down all the wisdom bestowed on him by God, but transmitted it in an oral tradition that continued until it found its way into the writings of Plato, Pythagoras, and others; moreover, Plato and other ancient authors intentionally obscured these divine truths because they were not appropriate for the uninitiated. In the Renaissance, with the help of the newly discovered texts and the proper scholarly and philological tools, humanists like Pico believed that the wisdom in the ancient theology could be recovered and the single, unifying philosophy forged. This philosophy would of course be firmly rooted in Christianity so that the unique truth of the Judeo-Christian tradition would coincide with philosophical truth. According to Pico, for example, the Jewish kabbalah was an important source of knowledge which was ultimately about Christian truths. On this reading of history, ancient and Jewish philosophers (for example Maimonides) became a source of divine wisdom. Pico and many other humanists insisted that with "the divine light" of Christian revelation, the wisdom of the ancients could be fully discerned.

The ancient theology was wildly popular. But it would not do for all. Some humanists offered another explanation for how the one truth could "flow through" all philosophical schools so that even pagan philosophers like Aristotle and Plato could contain Christian truths. For these humanists, the divine truths could be read in the "Book of Nature." Many philosophers took the following Biblical passage to endorse this point: "That which may be known of God is manifest among them; for God hath showed it unto them. For the invisible things of him from the creation of the world are clearly seen, being understood by the things that are made, even his eternal power and Godhead" (Romans 1. 19–20). That the ancient pagan texts were a proper source of some divine truths was a tradition with a long and respectable history. The philosophical profundity of the texts of Plato and Aristotle gave dramatic support to this thesis. To our sensibilities, the resulting coherence may seem a perversion of the original tenets; to the sincere Renaissance conciliator, it was a step towards philosophical truth and intellectual peace.

Platonism

As a philosophical school, Platonism has been many things to many people. There is no set of doctrines that constitutes Platonism, nor is it easy to know when to identify either a philosopher or a philosophical system as Platonist. As noted previously, scholastic philosophers like Anselm and Aquinas themselves endorse views which are Platonist while Platonists like Ficino make important use of scholastic

distinctions. There is an obvious sense in which the terms "Platonism" and "Platonist" are hopelessly vague. However, despite the vagueness of the terms, we can piece together a set of doctrines that is (for the most part) endorsed by prominent Platonists and whose presence in a philosophical system reveal Platonist sources and concerns.

First, it is important to remember that for many ancient thinkers, ontological priority was to be explained mainly in terms of self-sufficiency. The basic idea is that what stands in need of nothing for being what it is is ontologically primary. For most prominent Platonists, there was a hierarchy of self-sufficiency and being such that each of the lower strata in the hierarchy was supposed to depend on and be caused by the higher. In Plato's *Republic* the sensible things depend on the Ideas which themselves depend on the Good. For many of the philosophers who followed Plato, it was taken as obvious that unity and perfection were intimately related to self-sufficiency and being, so that the more reality something has, the more unified and perfect it would be. Both Christian and non-Christian Platonists assumed that there is a supremely perfect, wholly simple, and unified being on which all else depends. The implication was that only the highest being was wholly perfect, self-sufficient, simple, and real and that the beings in the lower strata had diminishing degrees of these features. What is less a unity, for instance, is less real and what is less real is constituted and explained by what is more unified and hence more real. For easy reference, let's call this the *Supreme Being Assumption.*

The second point to remember about the Platonism of medieval Europe is that, for Jewish and Christian thinkers, it was true that everything depends entirely on God, that everything is *in* God, and that God is *in* everything. The Bible is full of such demands. As Paul writes to the Ephesians, there is: "one God and Father of all, who is above all, and through all, and in all" (Ephesians 4.6). Concerning the fact that everything is *in* God, consider this passage from Acts: "For in Him we live and move and have our being" (Acts 17.28); while Paul writes about God: "For from him and through him and in him are all things" (Romans 11.36). These sorts of Biblical passages encouraged early theists, whether the first-century Jew, Philo of Alexandria, or the fourth-century Christian, Augustine of Hippo, to believe that God was *in* everything and everything was *in* God. In the fifteenth century, Marsilio Ficino wrote a letter to a friend that contains a brief dialogue between God and the soul. In Ficino's dialogue, God explains: "I am both with you and within you. I am indeed with you, because I am in you; I am in you, because you are in me. If you were not in me you would not be in yourself, indeed, you would not be at all." God continues: "Behold, I say, do you not see? I fill heaven and earth, I penetrate and contain them... Behold, do you not see? I pass into everything unmingled, so that I may surpass all; for I am also able to enter and permeate at the same time, to enter completely and to make one, being unity itself, through which all things are made and endure, and which all things seek." In brief, God exclaims: "in me are all things, out of me come all things and by me are all things sustained forever and everywhere" (*The Letters of Marsilio Ficino*, vol. 1, p. 36).

Nor were such theists either philosophically or theologically unsophisticated. They were perfectly aware of the grave theological problems that such views about the relation between God and creatures posed. As Augustine nicely makes the

point, worrying aloud to God in Book I (sect. 2) of the *Confessions*: "Without you, whatever exists would not exist. But does what exists contain you? I also have being... which I would not have unless you were in me. Or rather, I would have no being if I were not in you." For such theists, there were two closely related questions: how can creatures be in the transcendent God; and how can the transcendent God be in its creatures? For inspiration, early Christians like Augustine turned to Plotinus and Philo, who themselves of course were thoroughly indebted to Plato, or at least their version of Plato. Concerning the first question, namely, how creatures can be *in* the transcendent God, theists endorsed a distinction between the supreme Being as wholly independent and as that on which all else depends. Whereas the divinity is self-sufficient and exists independently of all its creatures, the creatures depend fully and constantly on it. In this sense, a creature can be said to exist in God just in case the whole being and nature of the creature depends continually on the divine. To use the language of these philosophers, a creature "exists in" God because the being and nature of the creature "flows from" the divine. The classic analogy is to the sun whose rays depend entirely on it while it depends on nothing.

As to the second question, namely, how the transcendent God is supposed to be *in* its creatures, the same problem occurs in the great Plotinus himself. According to him, the One or Supreme Being is "alone by itself" and simple, while it is also "everywhere" and "fills all things" (*Enneads*, III.8.4). For many theists, the Platonic Forms were taken to be Ideas in the mind of God. Many Renaissance and early modern Platonists considered these Ideas to be the attributes of God, where the basic point was that these attributes were the eternal simple essences which the divine mind conceives and then uses as models for the things of the world. Platonists like Augustine and Philo employed this account of the divine intellect to explain how the transcendent God can be said to be *in* creatures. The explanation depends on the Plotinian notion of emanative causation. Oversimplifying somewhat, the basic assumption is that any product of God contains the divine essence but in an inferior way. If the perfect God has an attribute f, then God can emanate f-ness to a lower being or creature. In the emanative relation, God loses nothing while the creature comes to instantiate f-ness. God remains transcendent and pure, while the creature becomes an imperfect manifestation of the perfect f. The emanative process is assumed to be continual so that the creature will have f just in case God emanates f-ness to it. The point here may be summarized as follows: the *Theory of Emanative Causation* claims that, for a being A that is more perfect than a being B, A can emanate its attribute f-ness to B in such a way that neither A nor A's f-ness is depleted in any way, while B has f-ness, though in a manner inferior to the way it exists in A. The emanative process is continual so that B will instantiate f-ness if and only if A emanates f-ness to it.

This account of emanation helps explain how it is that the divine transcends its products and yet is in them. The perfection and transcendence of God remains unchanged while it continually emanates its attributes to its products, which then have those attributes in an imperfect and hence distinctive manner. Plotinus distinguishes neatly between the transcendent One and its products when he explains that the One "is like the things, which have come to be" except that they are "on

their level" and "it [the One] is better" (*Enneads*, VI.8.14.33–34). To put it in non-Plotinian language, the Supreme Being is *in* the creatures in the sense that it emanates its attributes to them; it remains transcendent from them because it neither loses anything in the emanative process nor gives them any part of itself. In the *Confessions*, Augustine suggests that it was Platonists like Plotinus who helped him see the solution to the problem. As he confesses in Book VII (xi (17)):

> I considered all the other things that are of a lower order than yourself, and I saw that they have not absolute being in themselves, nor are they entirely without being. They are real in so far as they have their being from you, but unreal in the sense that they are not what you are. For it is only that which remains in being without change that truly is... [God] himself [remains] ever unchanged, all things [are made constantly] new.

Here the "exists in" relation is to be understood in terms of emanation where the basic idea is that attributes or Ideas of the divine emanate to its products and, in that sense, exist in them. The crucial point to understand however is that the attributes exist in the products in a manner *inferior* to the way in which they exist in the Divine. God has f perfectly; creatures have it imperfectly. The f-ness of God is not equivalent to the f-ness of the creature. The f-ness of the creature is in Augustine's words "of a lower order." However undivine we may feel, each of us is in some sense an emanation of the divine attributes. Let's summarize the general point here as follows: *Creaturely Inferiority* entails that, although creatures are emanations of God and in a sense contain the divine attributes, they are nonetheless inferior to God so that the creatures have the attribute in a manner inferior to the way in which they exist in the supreme being.

The third point that I want to emphasize about the Platonist tradition concerns some of its epistemological assumptions. Plato famously distinguished between being and becoming where the eternal and immutable Ideas constitute the former while the temporary and mutable sensible objects constitute the latter. For Plato the realm of being and the realm of the intelligible is the same so that the only objects of knowledge are the Ideas. Although the sensory realm lulls us into thinking that it is real, we must turn away from the senses in order to grasp the Ideas. In Book VII of the *Republic*, Plato offers the famous parable of the cave, the point of which is to make vividly clear how easy it is to be trapped in a world in which shadows are mistaken for the real things themselves.

Many Platonists placed the Ideas, as objects of knowledge, within us. According to Plotinus, for example, the Ideas reside in us and are constantly present to us, although we are unaware of them because our surface consciousness is only one level of awareness. Although Platonists differed about the precise role played by the senses in the acquisition of knowledge, most agreed that the process of coming to know the Ideas was one of removing oneself from the mutable world of the senses and letting one's understanding (*intellectus*) grasp the immutable Ideas within one's own mind. The acquisition of knowledge was considered an arduous, internal journey which required rigorous intellectual and moral discipline. The point of philosophy therefore was to raise oneself above the petty concerns of this world, to

concentrate on the eternal truths, and eventually to acquire knowledge of the Supreme Being. For most theists, the acquisition of knowledge of the Ideas was a necessary step toward knowledge of God.

Many Jewish and Christian Platonists endorsed roughly the same basic steps in this epistemological journey. For Augustine, the objects of knowledge are to be found within one's self. In the *Confessions*, he writes to God:

> These books [of the Platonists] served to remind me to return to my own self. Under Your guidance I entered into the depths of my soul... I entered, and with the eye of my soul, such as it was, I saw the Light that never changes casting its rays over the same eye of my soul, over my mind... What I saw was something quite, quite different from any light we know on earth... It was above me because it was itself the Light that made me, and I was below because I was made by it. All who know the truth know this Light, and all who know this Light know eternity. (VII, x (16))

In *On the Trinity*, Augustine explains that the possibility of knowledge is grounded in God's intimate presence in the human mind. According to Augustine, the mind acquires knowledge "by turning towards the Lord, as to the light which in some fashion had reached it even while it had been turned away from him" (*On the Trinity*, XIV, vi (8)). But even with divine help, "I cannot grasp all that I am. The mind is not large enough to contain itself" (*On the Trinity*, X, viii (15)). The goal of life is to remove oneself as much as possible from the ties to the material world and to contemplate the eternal and immutable Ideas within. Because the mind is mutable and finite, it can never grasp the whole of its contents; with the help of God, however, the human intellect or understanding can grasp some part of it.

For the sake of simplicity, let's summarize the basic points here as follows: the *Epistemological Assumption* claims (1) that the mind is the object of knowledge in the sense that it contains the eternal truths or Ideas, (2) that the mind, which is mutable and finite, will become aware of those objects only if it both turns away from the material world and is aided by the divine light, and (3) that it is the intellect or understanding that is capable of grasping those truths.

Early Modern Eclecticism and Philosophical Humanism

The appeal and popularity of conciliatory eclecticism persisted through the sixteenth and seventeenth centuries, and only began to wane toward the very end of the latter. Although in 1614 Isaac Casaubon dealt a severe blow to the defenders of the ancient theology by showing that many of the texts on which they had based their argument had been misdated by centuries, the commitment to ancient philosophy did not end. While it is true that many early modern philosophers were eagerly in search of a new philosophy to replace the out-moded scholasticism of the schools, most were happy to construct a new philosophy out of traditional elements. There evolved a startling number of philosophical options, each with its ardent followers, and a wide array of religious zealots who argued passionately against one another. Although the new mechanical philosophy promulgated by GALILEO

(chapter 4), DESCARTES (chapter 5), and GASSENDI (chapter 6) had gained enormous popularity by the mid-seventeenth century, many philosophers were prepared to combine the mechanical natural philosophy with more traditional elements. Jean-Baptiste du Hamel (1624–1706) of Paris, Johannes de Raey (1622–1707) of Leiden, and Johann Clauberg (1622–65) of Duisburg claimed, for example, that the new mechanical physics was consistent with Aristotelian metaphysics. The era's religious wars deeply disturbed survivors, many of whom were further repelled by the sectarianism of their contemporaries. It was common for philosophers of the period to say that "there are as many definitions as definers, as many philosophies as philosophers." In the face of such intellectual confusion, it is not surprising that conciliatory eclecticism was the methodological choice of many. As much as these conciliatory eclectics differed in the details of their proposals, their basic assumptions are strikingly similar: each is committed both to the goal of intellectual harmony among the philosophical and religious sects and to the idea that the harmony evident in God's world somehow guarantees intellectual concord. In the words of the French philosopher, Jean Bodin, "just as the different natures of singular things combine for the harmony of the universe," so can "the individual citizens" combine "for the harmony of all peoples" (*Colloquium*, p. 166).

Johann Christoph Sturm (1635–1703)

Johann Christoph Sturm's *Eclectic Philosophy* of 1686 wonderfully represents what happens to the conciliatory methodology when it is charged with the task of assimilating the new mechanical philosophy. Like many of his colleagues, Sturm bemoans the sectarianism of his time, which has reached a dangerous state of "envy and malice." The Cartesians, who loudly proclaim that only they possess the way to truth, are especially guilty. Sturm intends "to pounce upon those who are hostile to one another" – whether to the ancients, moderns, or skeptics – and to prove to such dogmatists that as long as they "do not open their eyes" to what is valuable in the other systems they will remain "cut off" from the truth. In the same way that a person "who wants to comprehend the globe cannot focus only on one part," so a person who "wants to acquire real knowledge cannot attach himself to one authority." According to Sturm, the only means to "true wisdom" is to open ourselves to all sources and all methods (Mercer, p. 48).

Sturm promises to show his reader how "to break through the fortress of the concealed truth" so as to discover the "secret workings of Nature." To this end, he demands only that they put aside the authority of any one thinker and take up the proper conciliatory method. This eclecticism does not propose "to collect ideas indiscriminately," but rather requires that its practioners "avoid blindness," "seek a variety of opinions," be willing to use "any method," and "extend" their minds "to the whole of Nature and Reason" so as "to recognize the truth and to distinguish it from the untruth." But how are we to know which philosophies are worth serious study? Sturm explains that when intellectuals all over Europe recommend a philosophy, it must be taken seriously: everyone is thereby obligated to get to the heart of it. In his opinion the most important authoritative leaders are Descartes, Gassendi, Plato, and Aristotle, but he also maintains that if we want to understand "the phenomena of Nature" we must learn from "other great Men." He applauds the advances of these new thinkers and their new discoveries (for example the circulation of the blood), but insists that their contributions depend crucially on the work of the ancients and especially of Aristotle. Although many of his contemporaries "have been taught" that Cartesianism "differs fundamentally from the Peripatetic philosophy" and that it "can be demonstrated" in a way the ancient system cannot, these are falsehoods promulgated by the "dictatorial Cartesian philosophy." If his fellow Cartesians will but "open their eyes" and remove themselves from "this danger," it will become clear that no single philosopher is sufficient when it comes to understanding "the whole wonderful immensity of Nature." Rather, the "strength and power" of each must be combined into a coherent system. The ancient wisdom must be combined with the new physics, and the various philosophical sects must be turned into the "one true system." Only the proper eclectic philosophy can discover the truth among "the many and diverse" sources and then demonstrate "the one true and genuine philosophical foundation" (Mercer, pp. 48–9).

With his eclectic methodology clearly articulated, Sturm attempts to use it in the remainder of his book. He turns mainly to Aristotle for help in his account of concrete individual substances, to the Platonists as the main source for his views about the relation between God and creatures, and to the new mechanical physics of Descartes and Gassendi for his natural philosophy. Like many other philosophers of his generation, Sturm is prepared to extend the conciliatory method to the new natural philosophies, to forge a synthesis of the ancient and the modern systems, and to assume that the use of a modest mode of argumentation will facilitate intellectual concord.

Gottfried Wilhelm Leibniz (1646–1716)

Leibniz was profoundly influenced by the methodological pronouncements of seventeenth-century humanists and as a young man committed himself to conciliatory eclecticism. Throughout his life, he thinks more highly of past authors than present ones and never relies too heavily on any philosopher who could be considered either modern or radical. While he is enormously impressed by HOBBES (chapter 22), Descartes, Gassendi, and other "moderns," he always "corrects" them with the help of some ancient author. For matters concerning created substance, Leibniz's favorite author was Aristotle. His account of substance was strongly influenced by his interpretation of Aristotle. But when it came to the details of the relation between God and creatures, Leibniz turned to the Platonist tradition. Like Pico, Leibniz thought that the fundamental truths were (mostly) those offered by the illustrious ancient thinkers and that one came to intuit these insights through a careful analysis of the grand metaphysical systems. For Leibniz, the road to knowledge was paved with the profound texts of the great thinkers. Like Sturm, Leibniz believed that the conciliatory eclectic constructs the true philosophy out of all the best philosophies. Some of Leibniz's most basic metaphysical beliefs were taken directly from the Aristotelian, Platonist, and mechanical philosophies: that a substance is something wholly self-sufficient, that each creature is an emanation of

God's essence, and that all corporeal features are to be explained mechanically are such truths. Leibniz's system is the result of the clever combining of these sorts of assumptions. As such, it is a brilliant blending of ancient and modern doctrines. In his *New Essays*, written in 1703–5, Leibniz offers a summary of his philosophy and the methodology that produced it. He writes:

> This system appears to unite Plato with Democritus, Aristotle with Descartes, the Scholastics with the moderns, theology and morality with reason. Apparently it takes the best from all systems and then advances further than anyone has yet done... I now see what Plato had in mind when he talked about matter as an imperfect and transitory being; what Aristotle meant by his "entelechy"; how far the sceptics were right in decrying the senses... How to make sense of those who put life and perception into everything... I see everything to be regular and rich beyond what anyone has previously conceived... Well, sir, you will be surprised at all I have to tell you, especially when you grasp how much it elevates our knowledge of the greatness and perfection of God. (Academy, VI ii 71–73)

Nor was Leibniz satisfied merely to practice conciliation himself. Throughout his life, he encourages others to do the same. As he explains in a letter of March 1678:

> I am concerned, as are all who wish to hold a middle ground, not to seem too much inclined toward either of the two opposed adversaries. Whenever I discuss matters with the Cartesians... I extol Aristotle where he deserves it and undertake a defense of the ancient philosophy, because I see that many Cartesians read their one master only,... and thus unwisely impose limits on their own ability... I think that the two philosophies should be combined and that where the old leavês off, the new should begin. (Academy, II i 402: Loemker, p. 190)

In summary, for Leibniz, the true metaphysics will be constructed from the underlying truths in the great philosophical systems, will be consistent with Christian doctrine and the claims of the revelation, and will explain the phenomena (including the new experimental findings).

Early Modern Platonism

Early modern continental Platonism has not been properly explored. The great scholar of Renaissance Platonism, Paul O. Kristeller, summarizes the main reason for this: "ever since classical antiquity, Platonist philosophers have tried not so much to repeat or restate Plato's doctrines in their original form, as to combine them with notions of diverse origin, and these accretions, like the tributaries of a broadening river, became integral parts of the continuing tradition" (*Eight Philosophers*, 48–49). Due to the tendency on the part of early modern thinkers to combine ideas from diverse sources, and given the different ways in which Platonist doctrines had been interpreted and used in the Renaissance, the task of identifying and then tracing the course of Platonism through the period is extremely difficult. Although recent scholars have begun to identify some of the Platonist components

in major and minor continental philosophers, the extent and diversity of Platonism has not yet been properly studied. I offer here some representative examples of continental philosophers who make significant use of one or more of the Platonist doctrines summarized above.

Descartes (1596–1650)

In Book VII of the *Republic*, when Plato describes the arduous journey from the shadows of the cave to the illuminated reality of the sun outside, he documents the difficulty of each step in that journey. When the truth-seeker turns from the shadows, he looks with difficulty at the fire within the cave. Then, having accustomed himself to the illumination of the fire, he is nearly blinded by the brightness of the sun outside, only to discover that after careful preparation, it is possible both to look upon the sun and to see the realities that the sun so beautifully illuminates. As Plato explains, once the truth-seeker "is able to see... the sun itself," he can "infer and conclude that the sun... governs everything in the visible world, and is... the cause of all the things that he sees" (516b).

Descartes' *Meditations on First Philosophy* is a handbook on how to escape the shadows of the cave and discover the illuminating truth beyond. For Descartes, the end of the epistemological journey is God who governs all things and is the cause of all things. As the Epistemological Assumption claims and as Descartes wholeheartedly endorses, the means to that epistemological end is one's own mind. In the First Meditation, radical skepticism sentences Descartes to self-contemplation. In the Second Meditation, he escapes inward and begins to contemplate himself as a thinking thing. Consistent with claim (3) of the Epistemological Assumption, he begins to recognize that it is the intellect and not the senses that grasps the eternal truths. By learning how to ignore the shadows and accustom himself to "the light of nature," he is able to acquire a proper understanding of himself and his relation to God. Consistent with the Supreme Being Assumption, Descartes discovers in the Third Meditation that he is "an incomplete" being who is "dependent on" God who "has within him all those greater things... actually and infinitely" and "who is the possessor of all perfections." Having come to grasp the real superiority of God, Descartes proclaims in the conclusion to the Third Meditation the need "to reflect on" the divine attributes and "to gaze with wonder and adoration on the beauty of this immense light, so far as the eye of my darkened intellect can bear it." Just as Plato's journeyer must slowly prepare himself to approach the truth beyond the cave, so Descartes' meditator must seek the truths within his mind, by slow and steady steps.

In the Fifth Meditation, Descartes focuses more fully on "the attributes of God and the nature of myself, or my mind." It is at the end of this exploration of "the ideas" of things "insofar as they exist in my thought" that the meditator reaches the epistemological climax of his journey: it is at the end of this Meditation when Descartes realizes the utter necessity of God and the fact that the truth of everything else depends on the divine nature. Descartes is explicit about the three claims of the Epistemological Assumption. Concerning (1), he explains that the "true ideas are innate in me, of which the first and most significant is the idea of God." Concerning

(2), he proclaims about God: "if I were not overwhelmed by preconceived opinions, and if the images of things perceived by the senses did not besiege my thought on every side, I would certainly acknowledge him sooner and more easily than anything else." Concerning (3), having suggested in the Second Meditation that it is "the intellect alone" that contemplates the truths, Descartes explains in the Fifth the process by which the intellect comes to recognize the truth of its own innate ideas. In the conclusion to that Meditation, he announces:

> Thus I see plainly that the certainty and truth of all knowledge depends uniquely on my awareness of the true God, to such an extent that I was incapable of perfect knowledge about anything else until I became aware of him. And now it is possible for me to achieve full and certain knowledge of countless matters, both concerning God himself and other things whose nature is intellectual.

With knowledge of God in hand, he can now complete the task of examining more fully his own nature. By the end of the Sixth Meditation, Descartes has discovered the fundamental truths that constitute "first philosophy."

Descartes was not explicit about his Platonist epistemology because there was no reason to be: his contemporaries were thoroughly familiar with that tradition, and could recognize this part of his philosophy for what it is. In his *Philosophia Eclectica*, for example, Sturm explains that the originality of Descartes' thought should not be over-emphasized because much of what is interesting in the *Meditations* is taken from Plato and other ancient sources (p. 52).

German Platonism

As a university student first in Leipzig and then in Jena, Leibniz became well-versed in ancient, medieval, and Renaissance Platonism and thoroughly familiar with the whole range of Platonist tenets. Jakob Thomasius (1622–84) was Professor of Rhetoric and Moral Philosophy in Leipzig, and had a major influence on the development of Leibniz's early thought. Johann Adam Scherzer (1628–83) was Professor of Hebrew and Theology in Leipzig, while Erhard Weigel (1625–99) was Professor of Mathematics in Jena, where Leibniz visited in the summer semester of 1663. All three of these thinkers used Platonist doctrines as a central component in their philosophical systems.

Leibniz's predecessors were not scholars of Plato, but they were inheritors of a vast literature of writings that they called Platonic and that they considered a treasure-trove of ideas. Making frequent use of images that one finds throughout the history of Platonism, they speak of that philosophy both as a source of divine wisdom that, like the sun, illuminates everything it shines upon and as a fountain of truth that has flowed through the thinkers of many centuries and that nourishes their own thought. The scope of their erudition in this area is impressive: they refer to the whole range of ancient, medieval, and Renaissance thinkers and move easily between pagan and Christian authors. It is important to emphasize that these German philosophers often do not distinguish among sources, but tend to treat Platonism as a warehouse of ideas to rummage through. Thomasius, Scherzer, and

Weigel turned to the Aristotelian tradition for its views about nature and substance, and to the Platonist school for its account of the relation between God and creatures. Each of these thinkers offers a (more or less) elaborate account of the relation between God and the material world, and each assumes the Supreme Being Assumption, Creaturely Inferiority, the Theory of Emanative Causation, and the Epistemological Assumption.

For Thomasius, Scherzer, and Weigel, the objects of scientific knowledge are the (Platonic) Forms, which are the Ideas of God; the ultimate goal of science is insight into the mind of God; the careful empirical study of the natural order is the first part of the means to that goal while the use of mathematics is the next part. In brief, to study the world systematically and to explain it thoroughly is an exercise in divinity. Because the thought of Pythagoras, Plato, and other Platonists was associated with the study of numbers and numerical relations, many early modern Platonists were interested in mathematics. Weigel claimed, for example, that the Platonic philosophy was fundamentally mathematical and therefore that it offered the key to science. It was Weigel's opinion that Plato and his followers had understood that God thinks mathematically. According to Weigel, "everything can be reduced to numbers" (Mercer, p. 39).

Leibniz's mentor, Thomasius, was particularly articulate about the relation between God and creatures. Thomasius agrees with those Platonist philosophers who claim that "everything is God and God is everything," but he demands that we understand exactly the relation between God and nature. According to Thomasius, it is important to grasp that everything "is wholly part of the divine" and yet that God is not in nature. He writes:

> Things are in God as in a fount and first cause, i.e., most eminently; secondly, they are in Mind as Ideas and form; thirdly, they are in Soul as reasons placed in its essence; fourthly, they are in Nature as seeds. For nature is the seminal power effused in universal matter by the soul of the World. Fifth, they are in Matter, although as a shadow, through imitation and participation. (Mercer, p. 203)

Leibniz's Platonism

Nearly from the beginning of his philosophical career, Leibniz accepted the Supreme Being Assumption, the Theory of Emanative Causation, the Epistemological Assumption, and Creaturely Inferiority. Let's consider each of these Platonist assumptions (very briefly) in turn.

As a very young man, Leibniz endorsed the view that God is the supremely perfect source of everything that continually emanates the divine essence to all creatures, and he conceived of each creature as an inferior instantiation of that essence. Concerning the Theory of Emanative Causation, consider the following texts. In the well-known *Dissertation on the Combinatorial Art* of 1666, the young Leibniz briefly turns to the topic of the relation between God and creatures. After the title page of the published text, he presents the following metaphysical "corollary": "God is substance; creature is accident." Throughout the 1660s, Leibniz uses the Latin term (*accidens*) in a fairly standard scholastic way: an accident is a

non-essential property that can be said "to flow" from the essence of the thing of which it is a property. Leibniz's use of this term in describing the relation between God and creatures is important. It implies that creatures both flow from God's nature and reflect that nature, but do not do so necessarily. Another early text proves that Leibniz has endorsed the Platonist conception of God promulgated by his teachers. In 1668, he presents for the very first time some of the details of the general relation between God and creatures. He proclaims his account to be similar to "Plato in the Timaeus about the world soul" and to "Aristotle in the Metaphysics and Physics about the agent Intellect." Like these other philosophers, he maintains that God is "diffused through everything" (Academy, VI i 510). Leibniz makes a related point some years later in the *Discourse on Metaphysics* (section 14) of 1686: "it is evident that created substances depend upon God, who preserves them and who even produces them continually by a kind of emanation."

It follows from the Theory of Emanative Causation that the attributes of God constitute the metaphysical elements out of which individuals are made. According to Leibniz in 1676, when these attributes are combined or related to one another, modifications of them arise. Leibniz writes: "from the conjunction of simple possible forms there result modifications, that is, ideas, as properties result from essence" (Academy, VI iii 521). The point is that, when simple forms or attributes of God are combined, modifications of the essence of God result "just as properties result from essence." In another essay of April 1676, Leibniz elaborates. Concerning the creator, he makes it clear that "the essence of God consists in the fact that he is the subject of all compatible attributes." Concerning the products of God, Leibniz claims that "any property or affection of God involves his whole essence." For Leibniz, when God produces something, regardless of how small, it "involves" the divine nature (Academy, VI iii 514). Creatures are modifications of God and result from the combination of divine attributes. Each modification is a product of the whole essence of God and therefore of all the divine attributes; it is in this sense that each modification of God will contain the whole divine essence. In section 28 of the *Discourse on Metaphysics*, he writes:

> Now, in rigorous metaphysical truth, there is no external cause acting on us except God alone, and he alone communicates himself to us immediately in virtue of our continual dependence... Thus we have ideas in our soul of everything only by virtue of God's continual action on us, that is to say, because every effect expresses its cause, and thus the essence of our soul is a certain expression, imitation or image of the divine essence, thought, and will, and of all the ideas comprised in it.

An obvious question arises at this point. The Creaturely Inferiority assumption insists that each creature contains the divine attributes but in a manner inferior to their divine source. What exactly does Leibniz have to say about this topic? In 1676, he is clear about the fact that it is appropriate "to ascribe" the divine features to the things of the world. For example, he claims that a creature has the immeasurability of God if it can be said to be somewhere; it has the omniscience of God if it can be said to perceive. But he also insists that, strictly speaking, the absolute affirmative attributes of God are not *in* the world. For example, he writes in April that God

"contains the absolute affirmative form that is ascribed in a limited way to other things." According to Leibniz, it is appropriate to ascribe the attributes of God to creatures, but it remains true that "God is not part of our mind" nor is the supreme being *in* any of the creatures which participate in the divine attributes (Academy, VI iii 520). In another essay of April, he writes: "all things are in a way contained in all things. But they are contained in a quite different way in God from that in which they are contained in things" (Academy, VI iii 523). In the *Monadology* of 1714, he explains in section 42: "creatures derive their perfections from God's influence, but they derive their imperfections from their own nature, which is incapable of being without limits. For it is in this that they are distinguished from God."

That Leibniz also endorsed the Epistemological Assumption is clear. For him, the main problem confronting his contemporaries is that it has become so difficult for the mind to become clear "to itself." In order to discover the Ideas which are the true objects of knowledge, we need to turn our intellect away from the world of sense and investigate "the principles of the sciences that possess eternal truth." These principles are like "what Plato called an Idea" (Academy, VI i 459–60; Leibniz 1969, 132–3). As he writes in section 83 of the *Monadology*, "[human] minds are images of the divinity itself, or of the author of nature, capable of knowing the system of the universe,... each mind being like a little divinity in its own realm."

Although there is abundant evidence of Leibniz's Platonist doctrines scattered throughout the mature writings, he is rarely as explicit as he is in *On the True Mystical Theology*. In this text, written in German (probably) in the final years of the seventeenth century, Leibniz places his Platonist cards on the table. Concerning emanative causation, he asserts: "Every perfection flows immediately from God, as essence, power, existence, spirit, knowledge, will... The divine perfections are concealed in all things, though very few know how to discover them there... In each and every being there is everything – but with a certain degree of clearness" (Leibniz 1969, p. 367). Concerning his epistemology, Leibniz is particularly straightforward. He announces: "Within our self-state [*Selbststand*] there lies an infinity, a footprint or reflection of the omniscience and omnipresence of God" who "belongs to me more intimately than does my body." Concerning the journey of the soul to knowledge, Leibniz continues by explaining that the mind must turn away from "the shadows" and seek the truth with God's help. He writes:

> Only the inner light that God himself kindles in us has the power to give us the right knowledge of God... Hence there are many who are learned without being illumined... This light does not come from without, although external teaching can, and sometimes must, give us an opportunity to get a glimpse of it. Among the external teachers there are two which best awaken the inner light: the Holy Scriptures and the experience of nature. But neither of these helps us if the inner light does not work with them. (The knowledge of God is the beginning of wisdom, and the divine attributes are the primary truths for the right order of knowledge.) The essential light is the eternal Word of God, in which is all wisdom, all light, indeed the origin of all beings and the origin of all truth. (Leibniz 1969, p. 368)

Leibniz stands in a long line of Christian philosophers who conceive the relation between God and creatures in Platonist terms.

Conclusion

The early modern era is one of intellectual fecundity and confusion. Not only did the period inherit the whole range of ancient philosophies that were rediscovered and recombined in the Renaissance, it added to these ideas many of its own invention. Whether it was the radical theology of Luther (1483–1546) or the mysticism of Agrippa of Nettesheim (1486–1535) and Jakob Böhme (1577–1624), whether the medical hypotheses of Paracelsus (1493–1541) or the mechanical physics of Galileo (1564–1642) and Gassendi (1592–1655), whether the theological proposals of Calvin (1509–64) or the panophism of Jean Bodin (1530–96), Johann Heinrich Alsted (1588–1638), and Athanasius Kircher (1602–80), whether the syncretism of Agostino Steuco (1497/8–1548) or the mystical cosmology of Kepler (1571–1630), the period was full of elaborate new theories and provocative ideas. Platonism was surely one of the main intellectual currents of the period. Although a good deal more work needs to be done to excavate the Platonist foundations of major parts of early modern thought, it is safe to conclude with some general remarks.

The thought of Plotinus, Augustine, Ficino, Pico della Mirandola, and of course Plato himself was widely known and highly regarded throughout the early modern period. Because the tradition of conciliatory eclecticism encouraged thinkers to combine ideas from different philosophical schools, it is not surprising that early modern philosophers borrowed freely from Platonism, often without explicit acknowledgment of their source. Despite the genuine limitation of the examples offered here, and despite the restriction of our discussion to early modern metaphysics and epistemology (and the exclusion, for example, of ethics and political philosophy), it is clear that Platonism was used throughout the early modern period in diverse and significant ways. As it turns out, even canonical figures like Descartes and Leibniz employed Platonist materials in their philosophical constructions. That such innovative thinkers combined these ancient assumptions with their mechanical physics and with other newly invented theories shows the propensity in the period to blend together ideas from diverse sources. That our early modern heroes and countless other lesser figures used Platonist assumptions without fanfare and explanation bears witness to the vitality of Platonism during the period and its continued importance as a source of ideas. Nor does this propensity to recombine ancient ideas with new ones diminish the originality of the final philosophical product. As Leibniz wrote about his philosophy toward the end of his life: "I have tried to uncover and unite the truth buried and scattered under the opinions of all the different Philosophical Sects, and I believe that I have added something of my own which takes a few steps forward" (Leibniz 1969, pp. 654–5). Once we place early modern continental philosophy against the background of Platonism and philosophical humanism, it is easy to discern both its genuine innovations and its ancient roots.

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4

The New Science: Kepler, Galileo, Mersenne

BRIAN BAIGRIE

Kepler's New Astronomy

Johannes Kepler (1571–1630) spent most of his life in Southern Germany, where he was born, and in nearby Austria. While training for the Lutheran ministry, he learned about the Copernican system from his mathematics professor at the University of Tubingen and became an enthusiastic convert. He never completed his religious training and spent his life as a teacher and mathematical consultant to governments.

Kepler's earliest theory, conceived when he was twenty-five years old, related the orbits of the planets to the five regular solids of classical geometry. The *Mysterium cosmographicum* (*The Cosmographical Mystery*, 1596), the treatise that advances this vision of nature as fundamentally mathematical, was the first avowedly Copernican work since the publication of *De revolutionibus Orbium Coelestium* (*On the Revolutions of the Heavenly Spheres*) in 1543. This book brought Kepler to the attention of Tycho Brahe (1546–1601), who in 1599 became mathematician for the emperor in Prague. When Brahe died in 1601, Kepler succeeded him, in the process inheriting Brahe's authoritative collection of astronomical observations, gathered over a twenty-five year period.

Not content with a geometrical description of the cosmos, Kepler was the first scientist to construct a physical theory to fit the new cosmos described by Copernicus. The guiding methodological principle of Kepler's new astronomy, advanced in his most important work, the *Astronomia nova* (*New Astronomy* 1609), is that astronomical problems are best resolved in terms of a mathematical analysis of their underlying physical causes. Kepler's brilliance is reflected in the way that he was able to extract a geometrically precise statement of the motions of the planets from the fairly crude conceptual resources at his disposal (bits and pieces of Aristotelian physics, Copernicus' astronomical theory, and Gilbert's study of the magnet, etc.) that were not tailored for the purposes of physical astronomy.

The central idea of Kepler's planetary theory is that the sun rotates on its own axis, carrying an image (*species immateriata*) of its body through the entire extent of the universe. This image was held by Kepler to have the power to overcome the resistance of the planet to motion (its inertia) and carry it in its grasp. As