ANAXAGORAS' COSMIC MIND

ABSTRACT

It is said that «Anaxagoras was the first philosopher who elevated spirit above matter, whereby he started a new era in theology,»¹ which is not an isolated opinion since, e.g., Eusebius says that Anaxagoras and his school were the first in Greece that talked about God (PE 14.16.12). In Antiquity, there was a common opinion that Anaxagoras was the first who thought that Mind (νοῦς) has a control over the entire universe (e.g., Plutarch, Pericles 4 = A15, Clement, Strom. 2.14.2 = A57). What is this Mind, what are its attributes and, although Anaxagoras himself does not say it explicitly, what allowed later philosophers to see Mind as God?

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Most information about Mind comes from fr. B12 (= Simplicius, In Ph. 156.14-157.4), from which we learn that Mind is infinite, autonomous, mixed with no thing, independent, omniscience, and all-powerful.

Mind is infinite in the sense that it is not limited by space since it exists everywhere where matter is (Simplicius, In Ph. 157.7-9 = B14) which is infinite and composed of an infinite number of parts (Simplicius, In Ph. 155.26-30 = B1; 155.30-156.1 = B2; Cicero, Acad. 2.118). Mind is also infinite in a temporal sense by being eternal, not limited by time (B14). It can be said that because Mind is mixed with no substance, its infinity means not being limited by any substance, that is, Mind does not have extension. Although this cannot be ruled out, a natural interpretation of Mind's infinity seems to be that Mind has power

¹ Konrad Elser, Die Lehre des Aristoteles über das Wirken Gottes, Münster: Aschendorffsche Buchhandlung 1893, p. 3.
over everything and that this is «infinity incomprehensible for the human mind» (Augustine, Ep. 118.4). Furthermore, because everything else is in space, infinity means nonexistence of spatial limits for Mind: regardless of how large—or small—some entities or substances can be and regardless of their location, Mind can wield full control over them.2

Mind is not mixed with anything because, as Anaxagoras argues in B12, Mind has control over all things. The statement can be interpreted to mean that by being mixed with no thing, Mind can permeate everything and so control all things. According to Philoponus, if Mind were made from any material substance, the substance would be an obstacle in knowing other substances «as colored glass does not let through other colors» (In Ph. 833.1) and as «the organ of touch does not feel a warm object that has the same temperature as the organ» (In de An. 522.29). This is a peripatetic argument since, as Philoponus himself states it, for Aristotle, «to rule» means the same as «to know.»3 But the argument is not groundless. If Mind were mixed with some substance, then by the very fact of its presence, the substance would influence Mind. For example, dry substance would be an obstacle in controlling wet substances. A similar argument was used in medical theory of Anaxagoras' times. According to the theory, an illness is the result of imbalance between the four humors (χυμοί), which signify the taste of a substance as well as the substance itself. Prevalence of one of the humors leads to an imbalance in the body, that is, to illness, whereby physical and mental abilities are impaired. Therefore, if by nature Mind is free of any admixture of any material substance, it is free from fluctuations of the substance and thus free from effects that fluctuations of humors can cause in the human body. If Mind should be all-powerful and

2 «There are no external limits in space, beyond which the sphere of Mind’s power ends,» Otto Jöhrens, Die Fragmente des Anaxagoras, Bochum-Langendreer: Heinrich Pöppinghaus 1939 [reprint Greek and Roman philosophy, New York, Garland 1987], 43. 45; Max Heinze, über den Nosè des Anaxagoras, Berichte über die Verhandlungen der Königlich Sächsischen Gesellschaft der Wissenschaften 1890, pp. 15-16.

its power over material substances should not be in any doubt, then Mind should be substantially and essentially different from everything else and, in particular, Mind should be free of any admixture of any substance.

Mind is omniscient. Mind "possesses all knowledge (γνώμη) about everything ... And Mind knew everything that is mixed and separated off and discernible" (B12).<sup>4</sup> Mind has full knowledge of what was, is, and will be before it started creating the world from the primal mixture of substances. There is no room for unpredictable phenomena in nature; Mind's knowledge encompasses whole knowledge about all things. This is rational knowledge that can be possessed by a being mixed with no thing since any admixture could potentially distort knowledge just as much as it could impair Mind's cognitive powers. Mind does not acquire this knowledge; it has always possessed it and as a being of different nature than the elements of the primal mixture, it does not need sensory organs to acquire sensory knowledge. Moreover, since Mind knows everything, it possesses consciousness and—as it is concluded—personality. Perhaps the notion of "Mind not endowed with nothing with which it could sense eludes the grasp of our understanding," as Cicero says (De nat. deor. 1.27 = A48), but this does not have to be an argument against the vision of Mind proposed by Anaxagoras.

Mind is omnipotent. "Mind ordered everything what was to be and what was and what now is not [any more] and what now is and what will be" (B12). Its power is infinite since matter which it controls is infinite: in matter "there is nothing that is smallest since always there is something smaller ... and as to big, there is always something bigger" (Simplicius, In Phys. 164.17-20 = B3). Matter is infinite in the big and in the small, it is infinitely divisible, unlimited by space and also it contains an infinite number of mutually irreducible substances (Simplicius, In Phys. 155.27-30 = B1, 156.2-9 + 157.9-12 = B4). This is an extraordinary vision of infinity of matter which has to be matched by knowledge and

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<sup>4</sup> A case is made that γνώμη means decision rather than knowledge, which is to signify that Anaxagoras "was attributing to his cosmic intelligence much more than just knowledge," J.H. Lesher, Mind's knowledge and powers of control in Anaxagoras DK B12, Phronesis 40, 1995, p. 142.
power of Mind if Mind should be able to control everything. This is not, however, an absolute power since matter is coeval with Mind. Mind does not create matter, it only shapes it. The concept of *creatio ex nihilo* was alien to Greek philosophy.

Is Mind an immaterial being? We should not expect from Anaxagoras a clear statement in this matter since requisite terminology did not exist yet. We have to wait until Plato to read about immaterial (*ἀσώματα*) idea (*Sph.* 246b) and immaterial order (*Phlb.* 64b). However, some statements seem to suggest that Mind is of material nature because Anaxagoras says that Mind is subtlest of all things (*λερτότατον πάντων χρημάτων*) and purest. The fact that Anaxagoras uses the phrase «of all things» does not have to mean that Mind is on the same level as elements of the primal mixture in which «all things (*χρημάτα*) were together» (B1) and which were acted upon by Mind. When at about the same time Protagoras made the famed pronouncement that «man is a measure of all things,» he meant by these things what exists and what does not exist. Therefore, the word «things» was then used in a very general sense just as in the English phrase «how are things,» in which the word does not refer to palpable objects, but to situations and the like.

How should the statement be treated that Mind is subtle and pure, that is, with no admixtures? Although the word *lepton* usually describes material substances, already Homer used it to describe wisdom (*μῆτις, Il.* X.226, XXIII.590), and Euripides described with it the mind (*νοῦς, Medea 529*). Anaxagoras also says that Mind is where all the other things are (B14), which may suggest that Mind has extension. However, the statement may convey the conviction that Mind must be in some contact with matter to control it. Therefore, the fact that Mind is considered a subtle substance does not prejudge that it is a material substance.

No doubt, Mind is of different nature than anything else. It mixes with nothing and although it can be present in other things,

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7 Sextus Empiricus. 7.60 = 80B1; cf. also Heinze, *op. cit.*, pp. 20-22.

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it is present in an unmixed form. Impossibility to be mixed with anything points to Mind's different nature and this difference may be seen as the manifestation of its immaterial essence. If it is difficult to accept unreservedly the immaterial character of Mind, then certainly acceptable is a cautious opinion that in Anaxagoras' concept of Mind «there is an oscillation between corporeality and incorporeality.» But it would be difficult to accept the notion that Mind «is evidently corporeal.»

Is Mind God? Anaxagoras himself does not make this identification; however, the attributes he ascribes to Mind hardly can raise any doubt in that respect. Supreme divinity is an infinite, omniscient, all-powerful being that brought the world into being, if only from preexisting matter. It is thus not surprising that the commentators of Anaxagoras' system soon made this identification. Josephus lists Anaxagoras among those whose vision of God is close to the vision of God of the Hebrew Bible (Contra Ap. 2.17), and many simply state that Anaxagoras himself considered Mind to be God (Galen, Hist. phil. 35; Sextus, Adv. math. 9.6; Lactantius, Inst. div. 1.5.18; Cicero, Acad. 2.118 = A9; Augustine, De civ. Dei 8.2).

How did Mind accomplish its task of creating the world? In the beginning, «all things were together» (B1) forming a mixture of an infinite number of infinitely divisible substance, attributes (opposites), and seeds. Initially, matter was uniform and unordered, although the lack of order is not tantamount to total chaos. Although it is not certain what exactly is the difference between attributes and substances, and between substances and seeds, there had to be some differences between them if they were treated as different components of the primal mixture. A seed, to be a seed, must lead to the emergence of some entity that potentially exists in the seed. There are an infinity of seeds, there are thus an infinity of

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characteristics that form the potential of the seeds so that an apple tree comes from a seed of an apple tree, and a cricket from a cricket seed. That is, there was already some order in the mixture, at least in respect to the nature and structure of its elements, so that Mind began its molding task with a material that was already moderately structured. The lack of order in the mixture consisted at least in that the components were thoroughly mixed together, and Mind had to separate them. By gradually bringing matter into motion, Mind causes separation of substances and structures them into cosmos, and spurs the potential of the seeds to the emergence of entities of which they are seeds. In this way, by giving the first impulse and a degree of separation of seeds from one another and from substances, Mind releases the potential of the seeds heretofore lying dormant in them. A complete separation of substances and seeds, however, is impossible because in the cosmos there are no qualitative changes, therefore, if something comes into being, it is because it already existed in an undeveloped form. Everything is in everything, everything is everywhere, and the emergence of new entities in the cosmos consists in greater concentration of some substances in some place. However, regardless of the degree of concentration, there are also in the same place traces of other substances: bone is bone because of higher concentration of bony substance than other substances, although never can the other substances be separated out from bone. The principle «everything in everything» repeatedly pronounced by Anaxagoras (Simplicius, In Ph. 164.26-165.1 = B6; 164.23-24 = B11; B12) does not cease to be valid on any level of the division of matter. Separation is thus a means of ordering matter into cosmos. In a sense, the task is never finished because complete separation of substances is impossible. However, if it had been possible, this would not at all have amounted to a more ordered cosmos. In the extreme case, it can be said in the spirit of Empedocles that if separation had been possible, there would have been an area in space filled with one substance, another area filled with another substance, etc.  

10 Such a view can be found to some extent in Anaxagoras when we accept the veracity of Diogenes Laertius' description of the separation of the four elements in the Anaxagorean universe (2.8 = A1).
we know. Therefore, Anaxagoras' insistence through the everything in everything principle that the complete separation of substances is impossible is the means to guarantee that an ordered and beautiful universe can emerge. In the word διακόσμησις, δια- is just as important as -κόσμησις:11 cosmic order is the result of separation, but the separation cannot be fully accomplished because matter is so ordered that this is impossible.

Mind is thus indispensable to give matter the first impulse of the rotational motion that leads to the organization of matter into the cosmos. Mind has in this the role of the first mover and organizer of matter, that is, the creator, or rather the shaper, of the world. As mentioned, the primal mixture had already a degree of organization. Was the mixture completely inert? This is not known, but it is possible that some random motion of elements of the mixture already existed, just as in the prime matter in Plato's system before the Demiurge started his creative activity. It can be also conjectured that the motion in the primal mixture was impossible because it was a mixture, that is, its elements blocked one another. In this case, Mind was the first mover precisely because it was mixed with no thing and so its purity would guarantee its dynamic character. Although mixture never ceases to be a mixture and the principle «everything in everything» in never suspended, the change in proportion of elements in a particular section of space releases the motion characterizing these substances.

Does Mind itself move? Aristotle says that Mind is unchangeable because only what is unchangeable can be an ultimate source of motion (Ph. 256b24-27 = A56). The argument, however, is valid in Aristotle's physics and metaphysics and, theoretically, does not rule out a possibility to see the source of motion as also in motion, as exemplified by self-moving soul in Plato's system. Philoponus gives a better justification of Mind's immutability when he says that according to Anaxagoras, the only types of change are separation and recombination (In Ph. 833.1, cf. Simplicius, In Ph. 163.20-23 = B17). Because Mind is mixed with no thing, there is nothing it should be separated from and nothing to recombined

with. Mind's immutability is thus a consequence of the kinds of change and of its purity.

Is our world the only world created by Mind? In fr. B4, Anaxagoras suggests the existence of other worlds, which are sometimes viewed as parts of the Earth. However, because Anaxagoras so often uses the concept of infinity, it would not be impossible if in his opinion there were other worlds beyond ours. An infinity of worlds can be shown thus.

Because for Anaxagoras, «as to the large, there is always [something] larger» (B3), it can be supposed that the primal mixture was infinitely extended. Because he denied the existence of the void (Aristotle, Cael. 319a19-20 = A68), the infinite space was completely filled with matter. On the other hand, «rotation [of the mixture] started from something small, it extends [now] more widely and it will extend [yet] more widely» (B12). This means that the process of creating the cosmos is not yet finished. To finish it, the entire infinite mixture would have to be rotated. But rotation progressed gradually, and thus the process of bringing the mixture into motion cannot be done in finite time. Therefore, either the process of creating the cosmos will never be finished, or at some point in time, the part of the mixture that is not rotating, and still an infinite amount of it, will become moved all at once.

It is possible that space and mixture are limited, which does not invalidate the statement that «as to the large, there is always [something] larger.» However, it seems more likely that Anaxagoras would not opt for this solution, choosing –with the atomists– the infinite space. If so, and if the progression of rotation takes place in finite steps, then the existence of infinity of worlds is very likely. Because the process of creating the cosmos still continues, it is possible that the worlds like ours were created and in the future the number of these worlds will grow, potentially into infinity.

The progressive creation of the cosmos and the emergence of new worlds seems to be the result of the mechanical process initiated by Mind. Rotational motion extends into infinity in the mixture so as the circles on water after throwing a stone. It is very

\[\text{Cf. the infinite number of intervals, one larger that another, but all of them are enclosed in a limited space: } [0, 1-1/2], [0, 1-1/4], [0, 1-1/8], \ldots, [0, 1-1/2^n], \ldots.\]

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likely that such a simple observation suggested to Anaxagoras such a cosmological vision. Mind, as it were, threw a stone into primal mixture and left the spreading of rotational movement to the mixture and its constitutive elements. Such a view is confirmed by Plato’s and Aristotle’s critique of Anaxagoras system.

The separation of Mind from matter was, according to Plato and Aristotle, invaluable for the explanation of natural processes. However, Plato criticizes Anaxagoras for considering Mind to be a cause of everything but not making proper use of Mind by «mentioning as causes air and aether and water and many other strange things» (Phd. 97c-98d = A47). Aristotle says that Anaxagoras limited the activity of Mind to creating the world, when he could not give a cause and when Mind appeared like deus ex machina, in other cases making use of everything else but Mind (Met. 985a18-21 = A47). According to Clement, Anaxagoras described «some strange rotations that make no sense when Mind was completely inactive and thoughtless» (Strom. 2.14.2 = A57). All these critiques seem to be of the opinion that Anaxagoras ascribes too much weight—or any weight, for that matter—to mechanical, natural processes, to automatic changes that are not under direct supervision of Mind. This, in essence, is the criticism for his deism, that is, for the view that Mind limited itself to giving matter the first impulse and withdrew from an active participation of the processes in nature.

The activity of Mind is not at all limited to giving the first impulse to the world. Mind is not completely separated from the world. Although it does not have any admixture, there are in the world some beings in which Mind is present (B11). A guess can be ventured as to the identity of these beings when we read that «Mind controls (κρατεῖ) everything that has soul (ψυχὴν ἐχεῖ), both small and large. And Mind controlled (ἐκράτησεν) the whole rotation so that it could start at the beginning» (B12). Mind is

This statement is used as an argument that «more clearly Anaxagoras could not express the identity of the two concepts, nous and psyche,» Fritz Krohn, Der νοῦς bei Anaxagoras. Münster, Bredt 1907, 13. But it rather seems that the statement could not show more clearly that the two concepts are not identical.
thus present in ensouled, that is, living beings. Noteworthy is the use of tenses: the aorist in the case of rotation, when the activity of Mind belongs to the past, and the present in the case of living beings since mind is continuously present in the world manifesting its activity in living beings, that is, in people, animals, and plants.\textsuperscript{14} Aristotle considered this solution to be at least unclear since, as he says, «in many places [Anaxagoras] tells us that Mind is the cause of beauty and order, in other places - that it is soul» (\textit{De anima} 404b1-3 = A100) and he practically treats Mind and soul as one substance (405a13-15 = A100). But the criticism itself is not altogether clear and can be based on nonextant Anaxagoras’ statements: Anaxagoras does not say anything about a cause of beauty and about soul being a cause of order. Philoponus comments on Aristotle’s statement by saying that Anaxagoras distinguished Mind and soul at the stage of creating the cosmos, after which Mind and soul are identified (\textit{In de An.} 72.9-10).

In any event, Mind seems to be present in living beings. This does not mean that Mind is mixed with these beings, in particular, with the essence of their lives, their souls. Therefore, Aristotle’s and Philoponus’ criticism that Anaxagoras identifies Mind and soul goes too far.

One way of explaining the statement that Mind controls everything that has soul is by seeing life as being of higher order than inanimate nature and apparently requiring constant supervision of Mind. For inanimate nature, the first impulse seems to be sufficient: the impulse releases mechanical laws responsible for all future changes. However, soul is the principle of life whose activity depends on constant control of Mind or at least cooperation with Mind. Soul in living being and Mind are thus different substances, soul being material principle of life and Mind being life’s rational, intelligible, extramaterial principle. Anaxagoras would thus agree with the statement of Euripides, his follower, that «Mind is God in all of us,»\textsuperscript{15} but not with Aristotle when he says that Anaxagoras’ pronouncements imply identity of soul and Mind.

\textsuperscript{14} «Anaxagoras declared that [plants] are animals and feel joy and sadness,» pseudo-Aristotle, \textit{De plantis} 815a18-19 = A117; «they possess mind and knowledge» (b17).

A consequence of this belief is the view that soul is substance which, as any substance, always existed as part of the primal mixture and which is a subject of the everything in everything principle. In this sense, Anaxagoras is a panpsychist when he believes that in each particle of matter there are particles of soul; however, by the very fact of their presence in each particle of matter, the particle is not animate. Life requires a requisite concentration and structuring of particles of soul in a particular place, which can only be accomplished by Mind. Mind is something different from soul and thus from life. Similar opinion can be found in Aristotle, and in Tertullian when he says that Mind as a being mixed with no thing is not mixed with life (De anima 12.2). Does this mean that Mind is lifeless? To an extent. Mind does not possess life in the same sense as material, animate beings, such as men, but this does not mean that it reduces Mind to the level of stones and water. Mind is of a different nature than anything else in nature and of a different nature than life of living beings that exist in the cosmos. Mind is the principle of the cosmos' orderliness, and this orderliness includes the existence of the soul, that is, of life. Rationality of Mind is thus elevated not only above nature and its order, but also above life itself. Mind is not dead, not non-living, but also is not living through having, or being, a soul. Mind is alive, that is, rationally active, but the cause of its activity is its separation from everything else, including life. The vitality of Mind is of a different sort; it belongs to a higher plane and this vitality is the sine qua non for life in nature to fulfill its role, which is possible by the constant presence of Mind in all living beings.

Another way of explaining the statement that Mind controls everything that has soul is by concentrating on the epistemological

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16 Some doxographers explicitly state that Anaxagoras' pupils considered the soul to be air and body and that for Anaxagoras, soul was airy (Aetius 4.3.2 = A93).

17 Aristotle says that "Anaxagoras seems to distinguish the soul and Mind, but in practice, he treats them as one substance," de An. 405a13-15 = A100.

18 It is even stated that Anaxagoras himself uses in B12 "an inchoate argument from design," Joseph G. De Filippo, Reply to André Laks on Anaxagoras' voös, Southern Journal of Philosophy 31, 1993, Supplement, 45, but the argument itself is quite inchoate although the possibility of such an argument is concordant with Anaxagoras' system. A full argument from design was initiated in Greek philosophy by Socrates.
side of the problem. Man is an intelligent being, but where does this intelligence lie? Does man have a mind of his own? The doxographic tradition says a lot about Anaxagoras’ views on sense perception but is silent about rational cognition (in particular, Theophrastus, Sens. 27-30, 37, 59 = A92). It seems that human soul can be considered an organ of reasoning, which is confirmed by the already mentioned frequent identification of the soul and mind apparently present in Anaxagoras’ system. It seems, however, that the soul’s rational ability must be constantly maintained by the presence of Mind. Mind enables soul’s rational abilities when being close to it; otherwise, soul would make human body alive, but man would be devoid of rational abilities. And so Mind is to the soul what the soul is to the body. The soul maintains life in the body—it is the life of the body—Mind enables rational faculties of the soul. For Anaxagoras, apparently inanimate nature can go on on its own without constant presence of Mind, but life, and in particular, life’s rational side requires constant supervision of Mind. Mind can be rational without soul, soul cannot be rational without Mind. And so, there is no human mind as a separate entity because in the universe there is only one Mind. It would not be correct to interpret the statement that Mind is present in some things (B11) as saying that each living being has a portion of Mind, just as human soul is a portion of the world psyche that penetrates and animates everything that exists for the Early Stoa and human logos is a fragment of God for the Roman Stoa.¹⁹ However, the nonexistence of a human mind does not amount to being limited to sensory perception alone, that is, being mind-free does not have to mean being mindless. Man can reason only because he is constantly plugged in to the rationality source that energizes the soul. This rationality does not belong to nature, it does not belong to life, and it is not a result of the development of life—it is not consequence of life. Rationality comes from beyond nature—rationality flows from Mind and Mind’s connection with life. For

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¹⁹ Adam Drozdek, «Theology of the Early Stoa», Emerita 71, 2003, pp. 79-80. Zevort seems to be close to this interpretation of Anaxagoras’ views when he says that an individual mind (a finite intelligence) is «the predominance of sorts of the universal intelligence is a particular being.» Zevort, op. cit., p. 90. Cf. the statement that «soul must be understood as in some way as an individualized form of mind.» Clark, op. cit., 44; «in every organism ... [there is] a piece of Nous as the person, the self, of the organism.» Felix M., Cleve, The philosophy of Anaxagoras, The Hague, Nijhoff, 1973, p. 101.
Anaxagoras, the entire rational sphere is separated from each being and transferred as one immense Mind into an extracosmic realm. This Mind returns, so to speak, to the world to ensure through its presence that animate nature functions properly (inanimate nature fares well on its own).

Such a vision of Mind, closer to monotheism of Christianity and Judaism than to polytheism of traditional Greek religion could have been a serious reason to accuse Anaxagoras for «the lack of respect for the gods» (Diodorus 12.39.2 = A17), all the more that Anaxagoras «was very proud of his explanations of the ways of actions of the gods» (Xenophon, Mem. 4.7.6 = A73). These explanations, quite clearly, consisted in removing these gods from the scene.

Anaxagoras’ Mind is a new quality in comparison to the views of the predecessors, but it can also be considered a continuation of these views. Anaximander’s Apeiron, infinity, is the source of the cosmos, Heraclitus’ Logos is the principle of orderliness of cosmos, Empedocles’ Love and Strife are the forces of changes in nature. But the division between nature and extranatural realm are blurred for them, if it at all existed. Anaxagoras admits the existence of some order in the elements of nature (e.g., the organization of seeds), but this order is by itself inept. An intervention from the outside is needed, an intervention of a higher order to release the potentiality of matter. Matter by itself is powerless since an ordered and organized, that is, rational influence is needed. But rationality is not part of nature. Anaxagoras detaches the principle of order and rationality from nature and places it in a being of different essence than nature. Thereby, he ascends to a higher order of abstraction than his predecessors and opens in philosophy the possibility to analyze rationality in separation from its substrate, and in theology, he initiates the analysis of being that is the cause of the order in nature, which in Christian theology will be strengthened by the treatment of this being as the cause of the nature itself.