

The Infinite and the Finite

The concept of the infinite or the existence of an infinite being has been one of great philosophical debate. By the concept of the infinite I am referring to the notion of God, the infinite being to which the creation of everything is attributed. Humanity is finite and bound by the constraints of time and therefore can never fully grasp the infinite, yet we have knowledge of its existence. God is distant from us in that He is not a part of time, for God must exist outside of time, for time cannot bind the infinite. Time has no influence on the infinite, but the infinite has a great effect on time for the infinite is the creator of the finite. Knowledge of time is only possible because we have knowledge of the infinite. The duality of our knowledge of the finite and the infinite together allow us to perceive time and interact within it. The infinite is the creator of time and we cannot know time (finite) without first knowing it (infinite).

Saint Augustine and Descartes both have a clear philosophy for the existence of the infinite and its relation to the finite. They both seek the infinite as a means to best understand the finite. Their arguments are quite similar in that they both arrive at God as the source for the infinite, but both formulate their argument differently. It is within these two arguments that a proof for the existence of the finite through the infinite can be made. Both come to an understanding of the infinite differently, but in the end Augustine's explanation is clearest. Augustine's claim is that time was and could only have been set into motion by the infinite at the

point of creation of the finite. This point is a critical difference between Augustine and Descartes, for Augustine takes it one step further and relates his notion of time to the creation of the finite itself.

Descartes' argument is simple, for the infinite must exist because one can ponder it without any direct proof of its existence. Descartes makes the claim that, "I decided to search for the source from which I had learned to think of something more perfect than I was, and I plainly knew that this had to be from some nature that was in fact more perfect" (Descartes p.19). In these lines Descartes makes reference to a more perfect being as something directly unobtainable by himself. That more perfect being is God. "It thus remained that this idea had been placed in me by a nature truly more perfect than I... that is to say, to explain myself in a single word, that it was God" (Descartes p.19). God is the perfect infinite being to which we associate creation. The concept of perfection is outside of Descartes yet he has knowledge of it. It is clear to Descartes that there are faculties of this world that can only be attributed to the infinite for they are impossible for the finite to fully know or achieve. Through my understanding and research of both Augustine and Descartes time is like perfection for the infinite is not a part of the finite. Descartes has knowledge of the infinite, but cannot point directly to its source.

Perfection is synonymous with the infinite for Descartes, for he imagines both a perfect and infinite God. Descartes comes to this conclusion based upon his understanding of both the concept of perfection and the infinite for neither can be obtained. God is both perfect and infinite. "I understand by the name "God" a certain

substance that is infinite, independent, supremely intelligent, and supremely powerful, and that created me along with everything else that exists – if anything else exists” (Descartes p.76). It is clear from this quote that Descartes believes God is the all powerful being responsible for creation and thus the creation of time itself.

God is infinite and cannot be bound by time. Infinity is such that it knows no bounds and goes on without end in each direction. Its boundless is the quality that which makes God infinite and makes him impossible to fully know. God is outside time, he is time unlimited and without the binds of a beginning or an end. According to both Descartes and Augustine the infinite is that which was responsible for the finite. It was in this act that creation came into being and the finite was created thus we only know the finite because of the infinite and its acts. Augustine goes forth then and establishes an argument by first setting two distinct parameters for time. First he makes it known that God is outside of time and for this reason God is the cause of the finite, for nothing else could be other than the infinite could be in the act of creation. Second it is then clear that God’s creation (finite) would then set time into motion. In order to best understand this claim Augustine turns to scripture. Augustine makes reference to the word and creation by the word. “He spoke and they were made” (Psalm 33:6). Augustine calls this the eternal word. “And so you call us to understand the Word, God with you, O God, the Word that is uttered eternally and by which all things are uttered eternally” (Augustine 11.7:9). This word is the beginning it is that which sets the finite into order and thus time itself begins. In order for God to have uttered such an eternal word he must exist outside

of its creation. Nothing comes from nothing so the infinite must have taken part in creation through the word and as a result set time into motion apart from it. Saint Augustine sets out in his book XI of his *Confessions* to define time and how he believes time relates to the infinite. At first glance time might appear to be nothing but a trivial thought of which we have no control, but Augustine makes a strong case for something greater. Augustine argues that it may appear that of time we have no control, but as finite being we interact within its confines. We have no control of the beginning and end, but we are directly effect by it through birth and death. We are a part of time regardless of how we define it. Time is the only permanent constraint within our lives. Time is a part of our finite nature and we can do nothing to avoid interaction in it. God on the other hand as the infinite resides completely outside of time. This knowledge of the infinite sheds light on our finite nature. In knowing the infinite we come to know the finite. “The Confessions are a book of time. The eleventh book no less famously pursues the question of a definition of time through scripture... with a definition of times as a distention of the mind” (O’Donnell p.21). It is from this “distention of the mind” that we come to know the infinite.

“I measure the motion of a body by time; and the time itself do I not measure? But, in truth, could I measure the motion of a body, how long it is, and how long it is in coming from this place to that, unless I should measure the time in which it is moved? How, therefore, do I measure this very time itself? Or do we by a shorter time measure a longer, as by the space of a cubit the space of a crossbeam? For thus, indeed, we seem by the space of a short syllable to measure the space of a long syllable, and to say that this is double. Thus we measure the spaces of stanzas by the spaces of the verses, and the spaces of the verses by the spaces of the feet, and the spaces of the feet by the spaces of the syllables, and the spaces of long by the spaces of short syllables; not measuring by pages (for in that manner we measure

spaces, not times), but when in uttering the words they pass by... That I measure time, I know. But I measure not the future, for it is not yet; nor do I measure the present, because it is extended by no space; nor do I measure the past, because it no longer is. What, therefore, do I measure? Is it times passing, not past? For thus had I said." (Augustine 11.26.33)

It is through the mind that man measures time. Time according to Augustine is an extension of our minds; it is a part of our finite nature.

"I shall not therefore now ask, what that is which is called day, but what time is, by which we, measuring the circuit of the sun, should say that it was accomplished in half the space of time it was wont, if it had been completed in so small a space as twelve hours; and comparing both times, we should call that single, this double time, although the sun should run his course from east to east sometimes in that single, sometimes in that double time. Let no man then tell me that the motions of the heavenly bodies are times, because, when at the prayer of one the sun stood still in order that he might achieve his victorious battle, the sun stood still, but time went on. For in such space of time as was sufficient was that battle fought and ended. I see that time, then, is a certain extension" (Augustine 11.23.30).

It is by way of this knowledge that we perceive the finite world around us. Only because we know time can we know our world. Without the knowledge of the infinite we could not perceive anything at all. "These things we know (creation), thanks be to You. And our knowledge, compared with Your knowledge, is ignorance" (Augustine 11.4.6). We only know God because the infinite has allowed us to know and in knowing we can perceive, thus if God did not create we would be nothing at all.

Creation is key for in creation the finite was made.

"How, O God, did Thou make heaven and earth? Truly, neither in the heaven nor in the earth did Thou make heaven and earth; nor in the air, nor in the waters, since these also belong to the heaven and the earth; nor in the whole world did Thou make the whole world; because there was no place

wherein it could be made before it was made, that it might be; nor did Thou hold anything in Your hand wherewith to make heaven and earth. For whence couldest Thou have what You had not made, whereof to make anything? For what is, save because You are? Therefore You spoke and they were made, and in Your Word You made these things." (Augustine 11.5.7)

If the creator did not create through the word the finite would not be. Creation opens the door for understanding, for now the finite removed from the infinite can gaze upon itself. Creation gave way to the formation of time, for creation is bound by time. For example we age and die and so does creation. Creation is not steady like the infinite it is ever changing, nothing in the universe nor the universe itself is unchangeable nor without end. In order for this to be so God must exist outside of the universe and have had to formulate it all at once and in of its finite nature without error.

The past and future are concept that Augustine struggles to fully comprehend, for the past and future are such that they exist only in thought. There is no vehicle for reliving the past or visiting the future. The past is a part of the restricted continuum of time for Augustine, yet the past is such that we cannot perceive it directly. We know the past through our memories. Our memories are thus perceived in the present. "Without a change we could be aware neither of distinct moments nor of time, because time is some kind of distance between different nows" (Knuuttila p.109-110).

"But what now is manifest and clear is, that neither are there future nor past things. Nor is it fitly said, There are three times, past, present and future; but perchance it might be fitly said, There are three times; a present of things past, a present of things present, and a present of things future. For these

three do somehow exist in the soul, and otherwise I see them not: present of things past, memory; present of things present, sight; present of things future, expectation." (Augustine 11.20.26)

We think or recall past events in the presents through our memories. Time cannot be known in the past for it does not exist. By this I am referring to the fact that we cannot relive or review the past as it happened the only way in which we can know the past in mind and in the present state of thinking of it. The past is only that which we are able to perceive in the present and in the mind alone. The future is only what we perceive the future to be. This means that we can only know the future through the present. There is no guarantee of the future for we cannot see it because we cannot perceive it in the way we do the present.

"What, then, is time? If no one ask of me, I know; if I wish to explain to him who asks, I know not. Yet I say with confidence, that I know that if nothing passed away, there would not be past time; and if nothing were coming, there would not be future time; and if nothing were, there would not be present time. Those two times, therefore, past and future, how are they, when even the past now is not; and the future is not as yet? But should the present be always present, and should it not pass into time past, time truly it could not be, but eternity. If, then, time present— if it be time— only comes into existence because it passes into time past, how do we say that even this is, whose cause of being is that it shall not be— namely, so that we cannot truly say that time is, unless because it tends not to be?" (Augustine 11.14.17)

As a result of these claims Augustine makes his point clear that both the future and past cannot exist in the way in which the present does. The finite can only engage with the present therefore it is its only concern as noted above in Augustine 11.20.26, while the infinite knows the fullest extent of time itself.

Time is by which we measure the movement of bodies. We use time to understand our relation to all that surrounds us. A subject can only be measured while it exists. Augustine uses the example of sound. Sound can only be measured while it exists. After a sound has ceased it can no longer be measured for it no longer exists because it is a part of the past. The past as stated above can only be recalled in the present therefore once the sound has pasted it no longer exists. Only the word of God Himself is eternal. "It is different, very different. These words are far beneath me, nor are they, since they flee and pass away; but the Word of my Lord remains above me for ever" (Augustine 11.6.8). The temporal words mentioned in this passage only last in their given time, they are finite according to Augustine and therefore cannot be recalled in the same way as the word of God which exists outside of time. Only God can deliver the infinite word that Augustine claims to be responsible for creation, as we know it.

The present is key for the finite. Neither the past nor the future truly matters for both exist in a realm in which we cannot interact; therefore both the future and the present do not even exist at all. It is impossible to visit either and our recollection of the past exists in the present in and at the point in which we recall them. This present state is what I believe the finite to be; it is time itself. If time as I have above stated is to be a restricted continuum then the point in which it is currently occurring is the point in which only one can interact.

Behold, the present time, which alone we found could be called long, is abridged to the space scarcely of one day. But let us discuss even that, for there is not one day present as a whole. For it is made up of four-and-twenty

hours of night and day, whereof the first has the rest future, the last has them past, but any one of the intervening has those before it past, those after it future. And that one hour passes away in fleeting particles. Whatever of it has flown away is past, whatever remains is future. If any portion of time be conceived which cannot now be divided into even the minutest particles of moments, this only is that which may be called present; which, however, flies so rapidly from future to past, that it cannot be extended by any delay. For if it be extended, it is divided into the past and future; but the present has no space. Where, therefore, is the time which we may call long? Is it nature? Indeed we do not say, It is long, because it is not yet, so as to be long; but we say, It will be long. When, then, will it be? For if even then, since as yet it is future, it will not be long, because what may be long is not as yet; but it shall be long, when from the future, which as yet is not, it shall already have begun to be, and will have become present, so that there could be that which may be long; then does the present time cry out in the words above that it cannot be long. (Augustine 11.15.20)

Therefore in accordance with this quote the past and future hold no weight and because time is finite it must have a clear beginning and an end. We can only know the now or the present, which as Augustine states above has no space.

“Time is an infinitely divisible continuum and there would be no time if there were no motion and no souls”(Augustine 11:15-20). In Augustine’s definition he makes it clear that time is finite and separate from the infinite. For time is based upon the motion of souls within a continuum created by the infinite. Time needs creation to act within its bounds. If creation would not be there would be no time. Time relies on the finite for its existence for the infinite is outside of time itself. Time is restricted in its continuum by the infinite. By this statement I am referring to the beginning and the end. Time has a clear beginning in the act of creation and an end with its destruction. Only the infinite can truly know time itself for it is responsible for it in the act of creation. The infinite just like Descartes reference to perfection is

something we cannot achieve, we can only ponder it from afar. The infinite is something of which we have knowledge, but we lack the ability to point directly to it in order to fully understand it. Perfect in Descartes is the same. We have knowledge of perfection, but we cannot know it or attribute it to a finite object. Both Augustine and Descartes make this claim clearly that in thinking about the infinite we can prove its existence, for knowledge of it cannot come from the self so it must be rooted in an outside source. We only know the infinite because it has created and in its creation we have knowledge of it and the ability to perceive its existence.

Augustine seeks to know time for it is through time that he is attempting to understand the mind. If time does not exist than his concept of the mind and perception of thought does not either. Time is integral to Augustine’s philosophy, for without the concept of time we lack the ability to understand our own thoughts. Time allows us to seek out the past in the present as a way of examining ourselves. If time would not allow such to exist, Augustine would not be writing his *Confessions*. “Great are You, O Lord, and greatly to be praised; great is Your power, and of Your wisdom there is no end. And man, being a part of Your creation, desires to praise You, man, who bears about with him his mortality, the witness of his sin, even the witness that You resist the proud,— yet man, this part of Your creation, desires to praise You” (Augustine 1.1.1). Augustine himself is writing in time and uses his book on time to make his writing pertinent for he must prove his ability to ponder past and present. His opening statement justifies this, for to glorify god by the means in which he does in the *Confessions* he first has to prove his own existence

and ability to reflect on his confessions. Augustine's ability to recall the past and speculate to the future allows him in his writing to more fully grasp his thoughts. The mystery of time and Augustine's final comprehension of time allows him to best seek out his finite nature through contemplation in order to better understand God.

The finite is a part of time and through our involvement with creation we come to best understand our nature. Time only exists for the finite; it holds no claim to the infinite for the infinite is outside the bounds of time. Man is finite and for this reason we are able to perceive time. Time allows us to ponder our thoughts both of the past and present for the mind perceives in time. Man is a part of the word uttered by God in creation. Therefore we perceive time in the finite and upon this perception we base our notion of time. It seems without the concept or constraint of time in the finite there could be no possible way for us to come to know the infinite. The infinite is that what binds time for God is responsible for both the beginning and the end of the finite. Therefore without time we could not know God and without God there would be no finite, for there would be nothing at all. God must exist for this to be possible. The infinite and finite are inseparable, for the finite would not exist without the infinite. It is through the infinite that we come to know much of which we hold to be true. Time does separate us, but it is through the infinite that we come to be a part of time itself. The infinite is that which is responsible for the finite and without it nothing would be. Time is an instrument of God and through it we come to express ourselves.

Augustine's concept of time is essential to perception because we can only view the world through a finite lens. Time is a part of everything finite and only God is infinite. Our awareness of time is always present. Augustine in book XI of the *Confessions* makes this truth known. It is in time, through our mind that we can come to examine our own lives just as Descartes does a thousand years later. Understanding time is essential to understanding all that which God has provided for us. Time is what makes us finite, and thus it defines our existence, for we are bound in it. As finite beings we have both a beginning and an end. The fact is man is finite. As a result man will forever seek that which he determines to be the source of all, the infinite or God.

We are finite and because of this we are dependent on time. This is Augustine's argument and in my opinion Descartes could share in the same belief although he does not explicitly. Descartes argument is more simple, but in my opinion integral to understanding of time in the way in which I perceive it to be in this paper. We are bound by time. All finite objects must have a beginning and an end, a birth and a death. This is all true for all humanity for it is impossible to live immortally. On the surface it appears that such notions really do not matter yet our finite nature is the greatest influence on our lives. The infinite must exist because we are able to think of it according to the minds of Descartes and Augustine. "That fact is not sufficient to explaining my having the idea of an infinite substance, since I am finite, unless this idea proceeded from some substance which really was infinite" (p.76). In this quote from Descartes' *Meditation Three* he is making the point that to

have the idea of the infinite the idea had to come from something. That is to say a finite object could not create the concept of the infinite without prior knowledge to allude to it. The infinite is thus that object to which the finite must point to as being the creator or source of all. God's existence is dependent on the infinite for the two are the same. Descartes lays a fairly solid argument for his explanation of the infinite in his *Meditations of First Philosophy: Meditation Three*. Descartes makes the claim in the quote stated above and his claim for the existence of perfection that because he has knowledge of God, God must exist, for the concept that is God could not have been created by himself. Descartes lacks the qualities and therefore the ability to create God as an invention of himself. The point Descartes is making is because he is finite and God is infinite there is no possible way that he could create the notion of God without prior knowledge of the infinite. The infinite in its relation to the finite is thus not bound by time. Descartes logic is key, for something must come from something, for spontaneous thoughts are impossible. It is in this thought that Descartes bases his assumptions for God's existence.

Metaphysics relies on the infinite. Both Descartes' and Augustine's philosophies are only true for they perceive in the finite and believe to hold knowledge of the infinite. Their concept of the infinite ends hypothesis that life is purely spontaneous. Time makes it clear that this is not possible we all have a beginning and an end; we are finite. Based upon my research and opinion time cannot be infinite for it is bound by a beginning and an end and also of the creation of infinite itself. There must be an infinite component itself. This component is that

which has established the finite. We have the idea of the existence of the infinite therefore there must be something more for us to understand it cannot be solely the finite. Time is binding and we must come to understand this fact and the only way in which we can is through the infinite, which we call God.

Descartes conclusion drawn upon his understanding of the infinite is key to understanding Augustine. Both use similar philosophies. Descartes varies from Augustine in that his claim is that the infinite exists because he can think of it. Augustine on the other hand varies in that he sees the possibility of the infinite because he also recognizes himself as a finite being, but trapped within time. I do believe in way Descartes is hoping to make a similar point. For Descartes in acknowledging the infinite he makes references to his inability to join with it or also fully know it. Descartes can only admire the infinite from afar and his knowledge of it is incomplete. In a way Augustine's proof is more similar to that of Descartes concept of perfection. We as we are have knowledge of perfection, but do not in any way obtain the means to achieve it. Also as finite and flawed beings we cannot fully know perfection just as we cannot fully know the infinite. Time for Augustine is like this, we are stuck in it, the infinite cannot be achieved or fully known; yet we can ponder it from afar. Our nature in both cases restricts us, for it is impossible to know something so far out of our mental reach that we can only formulate to its existence.

The finite is only possible through the infinite. We only have knowledge of the finite because of the infinite. Augustine in his understanding of creation through his Catholic faith makes his definition of God and time all the more rich. The bible

sources to which Augustine looks help to formulate his argument in a way in which he defines time as element of the act of creation itself. Creation makes time known. Descartes doesn't see God in this manner, but I do believe his notion of the infinite is this God of which Augustine refers. God must then be the source of creation that exists in time. For both Augustine and Descartes the knowledge of the world around them and their perceptions enable them to come to their understanding of God. For Descartes his claim is, "I think therefore I am" Descartes can see the infinite outside therefore it exists. Augustine differs from Descartes slightly in that his claim, "therefore we are, because we have been made; we were not therefore before we were, so that we could have made ourselves" (Augustine 11.4.6). Augustine makes his knowledge clear in that it is impossible for us to perceive without our creation; it is because we cannot exist without that which created us. God grants us the ability of perception and we can only perceive because he created. We can only perceive in and of the finite fully. Also we must be of the creator and thus finite because we have not always been there must have been a point of creation. The point of our creation was that when God uttered the word and creation came into being.

We come to know time through the infinite, for our perception of it could not be if creation had not occurred according to the means of Augustine's philosophy. Critical minds have often inquired as to the means of time and the infinite. Both these aspects of nature make our sense and perceptions possible. If the finite did not come to be in the moment of creation nothing else ever could for at that point time sprung into motion. Descartes and Augustine paint a clear picture and together

ensure our knowledge of the finite. We only know time because of the infinite. It is through our knowledge of the infinite and its relation to creation that time came into being along with all other finite objects.

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