

THE DIVINE AS INFINITE

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by

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## THE DIVINE AS INFINITE

To what is the extent of human comprehension? How far down any given path can our minds conceive? Over the centuries, and certainly in our current day many a man on the street would reply with Buzz Lightyear, “To infinity.. and beyond!”<sup>1</sup> Granted this is a mild overstatement for comic effect, but this is typically the conclusion for the common man.

The idea of infinity is not subject so easily to the whims of movie producers and editors, but to the rigor of the most logical minds in history. Their equations and axioms tell a different story than what would the common man. How far these divergent conceptions can align are of special importance to the community of faith in a transcendent God. Are we to take the many commentaries regarding God directly as infinite or have we been duped?

Particularly within theology we find the phrase “a being than which nothing greater can be conceived”<sup>2</sup> predicated of the Biblical God. If our minds can conceive of the infinite and unending, it stands open in fair play to ask, “What is God's relation to infinity?” As well, is the concept of infinity inherent in this idea of Anselm?

With these tasks at hand we start with what we know, which is defined by our intuition. This may seem an unsound foundation, but even within the rational and logical field of mathematics, we find a branch on understanding called the 'intuitionist' school. Many philosophical authors<sup>3</sup> themselves claim nothing more than an intuition about which properties

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<sup>1</sup> Toy Story. 2001. Directed by John Lasseter. (Walt Disney Video).

<sup>2</sup> Anselm, St. “St. Anselm's Ontological Argument,” in *The Ontological Argument From St. Anselm to Contemporary Philosophers*, ed. Alvin Plantinga. (London: Doubleday and Company, 1965), 3.

<sup>3</sup> Hill, Daniel J. *Divinity and Maximal Greatness*. (New York: Routledge, 2005), 13-17. Cites Thomas Morris, Nelson Pike and himself all as intuition-based.

we predicate of the divine.

That said, the idea of the infinite has a unique place in our mind. We understand the infinite by rule, not by visualization.<sup>4</sup> When asked regarding the specific properties of a 50 trillionth and third coin in a pile of infinite height, my mind can skip to such a coin, but it cannot enumerate all the previous coins. A correlary to this idea is that we are well-able to calculate the volume of very large sizes. Yet somehow in our conception this is still not unbounded. This rule by which the infinite is understood, oddly enough, is fully aware to both the parent and child who asks of his father, “What are you doing?” And with a valid response the son will reply, “And then what?” Surely the patient father will answer a second time, but the child, full of curiosity will be sure to always ask, “And then what?” All it takes to 'get to' the infinite is simply breaking our natural tendency to stop.

Within the historical-theology tradition of the understanding of infinity, we have a similar idea as to which our own modern intuitions lead. Within the language of the mathematician Rene Descartes and his contemporaries we have God associated with properties of perfection and a dimension given to each perfection, with the size of infinite.

Do I not see that I, in thinking, have some degree of perfection? And therefore I conclude that others besides me have a similar degree, and hence I have a basis on which to construct the thought of any number of degrees and so to add one degree of perfection to another to infinity, just as, given the existence of a single degree of light or heat, I can add and imagine fresh degrees up to infinity. Why, on similar reasoning, can I not add, to any degree of being that I perceive in myself any other degree I please, and out of the whole number capable of addition construct the idea of a perfect being? .. But you do not possess the idea of God any more than that of an infinite number of an infinite line; and though you did possess this, yet there could be no such number.<sup>5</sup>

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<sup>4</sup> Suber, Peter. “Infinite Reflections.” *St. John's Review*, XLIV, 2 (1998) Accessed November 9, 2006. Available from <http://www.earlham.edu/~peters/writing/infinity.htm>; Internet.

<sup>5</sup> Descartes, Rene. *The Philosophical Works of Descartes*. Translated by Elizabeth Haldane and G.R.T. Ross. Vol 2. (London: Cambridge University Press, 1967), 25-28.

What is interesting about this 400 year old conception is how familiar it is to our ears and mind. Anyone would agree to the statement, “given an infinite amount of time, anyone could count up unto infinity.” Likewise we find a curiously common theological statement: God has a set of properties, some of which are similar to my own, but with God it is “more (unto infinity) of the same.”

We find further detail thanks to the specific thought of G.W. Leibniz:

There are several entirely different perfections in nature, that God possesses them all together, and that each one belongs to him in a supreme degree. We must also know what is meant by perfection. A fairly sure test of it is this one: those forms or natures which are incapable of a highest degree are not perfections; for example, the nature of number or figure. For the greatest number of all, or the number of numbers, and the greatest of all figures are concepts which imply contradiction, but the greatest knowledge and omnipotence involve no impossibility. Therefore power and knowledge are perfections and insofar as they belong to God, have no limits. Hence it follows that God, who possesses supreme and infinite wisdom, acts in the most perfect way and does this not in a metaphysical but also in a moral sense.<sup>6</sup>

Like Descartes, Leibniz carries on the idea of properties of God that are degreed. As well, these properties are held by both human and divine beings, with the lesser degree for humanity and the fullest, most infinite degree for the divine.

Elsewhere Leibniz writes of perfection in terms of “positive reality”<sup>7</sup> and a “simple quality which is positive and absolute”<sup>8</sup> ideas which is new to the argument. This is the beginning of what could be understood as limiting God. To draw this out, why does Leibniz include the term 'positive'? Within perfect being theology there is no room of course for the

<sup>6</sup> Leibniz, Gottfried Wilhelm *Discourse on Metaphysics*. (1686) In *Gottfried Wilhelm Leibniz: Philosophical Papers and Letters*. Translated and Edited by Leroy E. Loemker. Vol. 2. (Chicago University Press, 1969), 303.

<sup>7</sup> Leibniz, Gottfried Wilhelm *The Monadology*. (1714) In *Gottfried Wilhelm Leibniz: Philosophical Papers and Letters*. Translated and Edited by Leroy E. Loemker. Vol. 2. (Chicago University Press, 1969), 647.

<sup>8</sup> Leibniz, Gottfried Wilhelm. “The New Essays Concerning Human Understanding,” in *The Ontological Argument From St. Anselm to Contemporary Philosophers*, ed. Alvin Plantinga. 54-56. London: Doubleday and Company, 1965., 55.

imperfect and negative; which is being avoided here. On this point, one could bring the “Is it within God's power to sin?” issue to the table. Leibniz does not allow for such a question, following the privation view of sin and morality<sup>9</sup>. God is the standard, and in one sense, 100% full of goodness by nature. To be any less would thereby remove the status of deity.

Up until now, there has not been any real distinction to be made between our intuition and philosophical consideration. But a warning has been sent out in the man J. N. Findlay. What should happen if we were to look upon the list of perfections of Descartes<sup>10</sup> and Leibniz? And why stop there, perhaps we ought move along to other thoughts on God's perfection. What could come of this concoction is quite the opposite of what the theist is after. Using such ideas, Dr. Findlay shows the impossibility of God's existence via this negative view of the Ontological Argument.

Hence we are led on irresistibly to demand that our religious object should have an unsurpassable supremacy along all avenues, that it should tower infinitely above all other object. Not only are we led to demand for it such merely quantitative superiority: we also ask that it shouldn't stand surrounded by a world of alien objects, which owe it no allegiance, or set limits to its influence.. What, however, are the consequences of these requirements for the possibility of God's existence? Plainly (for all who share a contemporary outlook) they entail not only that there isn't a God, but that the Divine Existence is either senseless or impossible.<sup>11</sup>

Such tremors ought be felt in our intuition when we claim naïve understanding of this infinitely powerful God. What in our intuition makes us want to predicate to A, both A and  $\sim A$ ? Typically in the form of: let A and B both be a set of properties such that there be a subset of each such that these subsets are not equivalent. Yet, we wish to predicate equivalence to A and B

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<sup>9</sup> Leibniz, *Discourse on Metaphysics*, 304.

<sup>10</sup> Descartes, . 36. “We have in the notion of God absolute immensity, simplicity, and a unity that embraces all other attributess; and of this idea we find no example in us: it is, as I have said before, like the maker of the workman imprinted on his work.”

<sup>11</sup> Findlay, J.N. “Can God's Existence be Disproved?” in *The Ontological Argument From St. Anselm to Contemporary Philosophers*, ed. Alvin Plantinga. (London: Doubleday and Company, 1965), 116,118-19.

on the simple terms "because he is God." If such logic held, we can be sure that disorder and dysfunction on every level of this actual world would entail. That is hardly a perfection.

This simple example of the requirement for logical coherence is necessary for any understanding of God as infinite. As we have noted, the relation of the infinite to the divine has been through the properties of the divine being on a scale with God at the 100% mark and all subsequent reality below. As to whether all objects' value (whether commensurable or not) can thereby be placed on such a scale, Thomas Morris demonstrates well in the first chapter of his "Anselmian Explorations."

Having such a scale is of course a requirement, but to what degree can we say each divine property or perfection lies? Morris starts this discussion with a clear list and definitions:

Great-making properties fall into various categories. First, there are those that are degreed and those that are not. Likewise, among degreed properties such as that of being powerful, there are those that have logical maxima, or highest possible degrees, and those that admit of infinite increase. A property which is constituted by the logical maximum of an upwardly bounded, degreed great making property is a perfection. Clear examples of perfections would be omnipotence and omniscience.<sup>12</sup>

Likewise Daniel Hill has a list, which dovetails nicely into Morris' set. They both make passing reference to what could be termed 'binary' properties: those properties which are not scaled, or degreed. Hill gives us the example of "being a concrete object is one."<sup>13</sup> We could find existence in this category as well; one cannot exist more or less, either you are or you are not. Clearly no reference to the infinite can be found here.

The larger category of properties for both Hill and Morris are those that are scaled. Morris gives rather vague definitions to his two categories of maximal and infinite. At the heart of our discussion we find a curious divergence from intuition: perfections are not "those that admit of infinite increase." Taken at face value, one could readily accuse Morris of speaking of a

<sup>12</sup> Morris, Thomas V. *Anselmian Explorations, Essays in Philosophical Theology*. (Notre Dame, IN: University of Notre Dame Press, 1987), 21.

<sup>13</sup> Hill, *Divinity and Maximal Greatness*, 10.

very limited God. We would readily agree with Anglin, “For a theist, God can create infinitely many stars, he can know infinitely many facts, and he can love us for infinitely many years. Those who deny every sort of infinite implicitly denigrate God's power.”<sup>14</sup> What has happened to the Leibnizian God without limit? Oddly enough, while Leibniz claimed an infinitely wise God, in the same passage he deemed perfections to be degreed and anything like “the number of numbers” to be not a perfection. This is a foreshadowing of Hill's more detailed categories.

Hill divides all scaled properties into three major groups (maximal, optimal and open) with a few various combinations. For every property 'F', F is maximal “if and only if it is not possible that there be a being that has more F”<sup>15</sup>. The second major grouping is the optimal properties: “If F is a scaling great-making property of a being, x, has F optimally if and only if nothing could be greater than x in virtue of having more or less of F.”<sup>16</sup> Finally, the non-scaled or open properties “are neither optimality properties not maximality properties, i.e., they are such that nothing has them maximally and nothing has them optimally either... an example would again be size, in the set-theoretic sense.. There is no optimal size tout court, though there may well be an optimal size with respect to a friendly seminar.”<sup>17</sup>

Now, as has been mentioned, there is absolutely no reference to the infinite in any of these first two properties, and Hill goes on to champion these first two types for omniscience and omnipotence. Intuitively, “maximal” is “infinite.” That is hardly being stated here. In fact, Hill discredits the one truly infinite property:

If any open property is a great-making we have a problem. It would seem, in that case, there

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<sup>14</sup>Anglin, W.S. *The Philosophy of Mathematics, The Invisible Art*. Vol 43. Studies in the History of Philosophy, Vol 43. (Lewiston NY: Edwin Mellen Press, 1997), 45.

<sup>15</sup> Hill, *Divinity and Maximal Greatness*, 10-11.

<sup>16</sup> Ibid., 10.

<sup>17</sup> Ibid., 12.

there is, and could be, no divine being because for each possible object there would always be another possible object that is greater. Suppose size, in this set-theoretic sense, had been a great-making property (it isn't), then there would have been no divine being because for every possible object, there would have been always another possible object that was bigger, and thereby, greater. Hence there would have been no maximally great being and, therefore, no divine being.<sup>18</sup>

Given the input from our intuition, Hill's quick assessment of the open property leaves us with quite the opposite conclusion than which we desired. If there is no scale, there is no Ontological Argument.

There is, however, an antithesis to the limited maximality property. "There are some scaling properties, such as size, in the set-theoretic sense of cardinality (which roughly equates with number of members), that cannot be possessed maximally. Let us call such a scaling property, 'a non-maximality property'. For example, for every possible set there is always a bigger possible set."<sup>19</sup> Since we are looking for a concept that will rise above the sub-infinite vocabulary of "maximal" this would seem to be a profitable endeavor to pursue.

At the turn of the last century the whole idea of the infinite was turned from simple naïve intuition into formal logic by Georg Cantor.<sup>20</sup> Now, what is intriguing is the idea of ordinal numbers versus cardinal numbers. Ordinals are what is important for our discussion of ordering from least to greatest. The ordinals are what we usually think of when we say we can keep counting without end; they are an infinite set. With this knowledge thus far, the naïve intuitionist will say, "Can we not then say that there is an infinite set of all possible knowledge that God has, thereby he is omniscient?" This appears to be a valid idea until we learn more about Georg Cantor.

For every set we can list out all subsets. For instance, given the set  $S = \{a, b, c\}$ , its

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<sup>18</sup> Hill, *Divinity and Maximal Greatness*, 12.

<sup>19</sup> Ibid., 11.

<sup>20</sup> Suber, "Infinite Reflections."

subsets would be  $S_0 = \{\}$ ,  $S_1 = \{a\}$ ,  $S_2 = \{b\}$ ,  $S_3 = \{c\}$ ,  $S_4 = \{a,b\}$ ,  $S_5 = \{a,c\}$ ,  $S_6 = \{b,c\}$ , and the full set itself,  $S = \{a,b,c\}$ . Were we to collect these subsets into another set called a Power Set we would have  $P(S) = \{ \{\}, \{a\}, \{b\}, \{c\}, \{a,b\}, \{a,c\}, \{b,c\}, \{a,b,c\} \}$ . Now it is clear to see for a finite set of cardinality (read: number of elements) 3, that its power set has a larger cardinality of 8. So the naïve intuitionist will reply, “That is fine, but the set of all propositions is not finite. Clearly for an infinite set its power set cannot be larger. Clearly there is nothing bigger than infinity.” There is still more to learn.

What fame Cantor has is in his theorem: “the power set of any set, finite or infinite, possesses a greater cardinality than the original set.”<sup>21</sup> The truth of this for infinite sets is very much against intuition, and can only be dealt with by proof, which Peter Suber does well to explain. As for our set of all propositions, Patrick Grim<sup>22</sup> uses this idea against us. We can consider each element in our infinite set of all propositions to be a proposition. What happens when we take the power set of our set? As we have learned we get a larger cardinality. What that entails is for each subset we now have another proposition that the element is either contained in or not contained in the subset. Thereby, just as with Hill's open property, we get an expanding definition of our set, with the final conclusion that there is no final set of propositions for God to know. Lucky for us, Alvin Plantinga solves this problem essentially with our very first observation: it is enough to state the infinite by rule, not by explicit set. If  $x$ , then God knows  $x$ .<sup>23</sup>

What comes of these arguments is that for all the centuries that our intuition has guided us about the nature of the divine, for all intents and purposes, it is now removed from the contemporary discussions. This is not to be berated though, however against our intuition it may feel. Perfect-being theology has at its center certainly the most maximally great over all other

<sup>21</sup> Suber, “Infinite Reflections.”

<sup>22</sup> Hill, *Divinity and Maximal Greatness*, 31.

<sup>23</sup> *Ibid.*, 32.

logically possible beings. God certainly knows all and is powerful over all, though we may not be able to state that 'all' in an infinite set. Even more certainly we can still join with Chris

Tomlin, singing:

All of You is more than enough for  
all of me For every thirst and  
every need You satisfy me with Your love  
And all I have in You is more than enough<sup>24</sup>

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<sup>24</sup> Tomlin, Chris. "Enough." On *Not to Us*. 2002. Six Steps Records

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