

# **Philosophy of the Infinite: The Philosophy of Immanuel Kant**

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## **Kant's View of the Infinite:**

Kant breaks down the universe into two categories. The phenomenon, and the noumenon. The phenomenon is the conceivable world; the noumenon is the sum of everything, which is beyond understanding. The noumenon can also be considered an object before it is perceived.

“Perception is said to be a mode of consciousness, which refers directly to an object. This reference to the object is in us mediated through sensation; in other words without sensation we could have no perception.”<sup>1</sup>

Kant argues that a change occurs between sensation and perception. When one perceives an object it becomes changed by thought. We comprehend things in relation to our worldview, which is subjective and based on experience. The object will appear in two forms; how it actually is, noumenon, and how we perceive it, phenomenon. The noumenon is beyond the senses. It is the attribute of the object that exists but cannot be perceived by our limited consciousness. The spectrum contains numerous forms of light but we can only perceive visible light, that does not mean that the light shined down upon us consists only of the visible spectrum. Kant's “greatest merit” according to Schopenhauer “is the distinction of the phenomenon from the thing itself.”

For Kant perceiving the infinite involves the phenomenon and the noumenon. The infinite is described as an attribute of the universe as a whole. The infinite in the physical sense is inconceivable spatially and temporally. The cosmos cannot be finite because the mind always seeks more; it yearns to know what is beyond our current limitations. Conversely it cannot be infinite because the mind cannot conceive of the

infinite because it only knows that which is in relation to itself and thus a paradox is drawn. The same is true of time because we cannot view time as finite because that suggests that something existed before it. We also cannot conceive of an infinite time because we know perceive things only in relation to our notion of time, which is finite. This paradox is solvable in the fact that time, space, and causes are modes of perception. Kant views space and time as *a priori* perceptions. By this he means that they exist independent of sensation, the transition from stimulus to perception is not automatic. Our mind changes the object to fit our world, and its limitations. Our mind selects the stimulus pertinent to its necessity. Space and time are two methods of inquiry not things themselves. The mind uses space and time to comprehend the infinite by assigning a discernable order to it.

“The Universe by its immeasurable greatness, and infinite variety and beauty that shine from it on all sides, fills us with silent wonder. If the presentation of all this perfection moves the imagination, the understanding is seized by another kind of rapture when, from another point of view, it considers how such magnificence and such greatness can flow from a single law, with an eternal and perfect order.”<sup>2</sup>

The Universe exists as a whole, infinite but is understood by our *priori* perceptions.

The Universe is infinite in the noumenon sense, but not in the phenomenon. For Kant a sensation is simply an awareness of an object not necessarily a reaction to or an understanding of an object. One can sense the infinite in that it is understood that it exists but not sense it in that the human mind in being finite cannot fully conceive it. The mind is finite and therefor cannot perceive the universe, as it actually is, infinite. For Kant sensation is the human reaction to a stimulus. For example physical contact results in the firing of neuron and is perceived in the phenomenon.

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<sup>1</sup> The Philosophy of Kant Explained, Watson, 75

<sup>2</sup> Cosmogony, Kant, 135

Kant views the universe as having the attribute of and being itself infinite. As mentioned earlier, philosophically we cannot understand the universe as infinite or finite.

Kant believed though that the universe was an actual infinite.

“We have beheld with astonishment figures in the heaven which are nothing else than such systems of fixed stars confined to a common plane-Milky Ways, if I may so express myself, which, in their different positions to the eye present elliptical forms with a glimmer that is weakened in proportion to their infinite distance. They are systems of, so to speak of an infinite number of times infinitely greater diameter than the diameter of the Solar System.”<sup>3</sup>

There is an apparent contradiction here though that even though something is physically visible it is infinitely far away. What Kant means by this is the distance is so massive that it cannot be conceived in any human terms. All measurement is based upon a knowable standard, therefore if one cannot find a term that is comprehensible for measurement it will appear to in the phenomenon form as infinite. Kant shows again the disparity between the noumenon and phenomenon with this example. The distance is not actually infinite in noumenon but it is in the phenomenon. What is infinite to man is not what is actually infinite. For the whole in its “immeasurable greatness” is the actual infinite.

Kant sees God as a “necessary being.” God is the “infinite being” which creates an infinite universe “in proportion to his power.” God therefore is also as an actual infinite. Kant was an agnostic, he thought that belief in God is a matter of Faith, because God exists in the noumenon. Unlike Hume<sup>4</sup> who for similar reasons remained a staunch atheist, Kant saw God as being a creative force.

“We come no nearer the infinitude of the creative power of God, if we enclose the space of its revelation within a sphere described with a radius of the milky way, than if we were to limit it to a ball an inch in diameter.”<sup>5</sup>

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<sup>3</sup> Cosmogony, Kant, 137

<sup>4</sup> Hume and Kant did agree on the idea that physical reality was made up of sensations, e.g. the moon according to Hume was “a bundle of sensations”, Kant just believed that these sensations could be viewed together as the noumenon

Kant saw God as the creator of a “Universe of infinite variety and beauty.” We cannot conceive of the infinite nature of God in the phenomenon. Anything that is finite is equally far away from the infinite. In comparison according to Kant all things that are finite are equal, even a golf ball and the earth. One cannot compare something that is finite to something that is infinite, except that one has form and the other is beyond form.

### **Kant’s View of the Infinite Compared with Spinoza**

Spinoza’s views arose in opposition to Descartes’s dualism. For Spinoza “all is one and that one is God.” God is a pervasive force rather than an anthropomorphic being. The underlying order of the universe is explained by the fact that God, perfection, is everything. Kant also saw inherent universal order but didn’t believe God to be infinite spatially. Kant believed space and time to be function of the phenomenon. Space and time are simply two *a priori* forms of perception. For Kant we see the universe not in a chaotic state but in relation to our perceptions. Similarly Spinoza’s universe is broken down into substance, attribute and mode. Spinoza uses the term substance to mean essence as opposed to material. God is substance and “every substance must be conceived as infinite . . . it is clearly to be seen, that measure, time, and number, are merely modes of thinking, or rather of imagining” (Letter XXIX, Spinoza).

For Kant and Spinoza an actual infinite exists but can only be understood as a phenomenon. Kant’s infinite is separate from God though. God is the infinite, which is everything, but we live in a reality broken down by modes and attributes. The cause, which Spinoza alludes to, is God, because “God is the cause of all things, which are in

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<sup>5</sup> Cosmogony, Kant, 139

him.” God is a “causal chain.” Since God in “substance” is infinite it therefore means that everything else is infinite because they share the same substance. This includes the mind, which Descartes discounts and believes as not being made up of any divine material.

Kant and Spinoza also agree on the absolute nature of the infinite. Modes and attributes are understood as relative to the human experience. The infinite is simply the sum of all things known according to our finite interpretation. The infinite is actually inconceivably large and diverse. Spinoza’s infinite could be compared easily with Kant’s noumenon. The noumenon is the true reality divorced from our finite view. Spinoza believes that we uses modes and attributes to understand the infinite, these could be correlated with phenomenon.

Spinoza holds that God is the infinite and creates the infinite universe. Kant believes in the infinite universe and in God but does not draw the same connection between the two. Kant’s justification for the existence of God is based on moral reason.

“Reason rightly demands the realization of the complete good, which involves the realization of happiness to morality, and demands it on purely impersonal grounds. Now we can only conceive this union to be effected if we postulate the existence of God, as the only cause adequate to produce it.”<sup>6</sup>

For Kant since everything is simply a finite perception there can be no proof of the existence of God. Spinoza was a romantic before the romantics. He saw God in the trees and heard him in the wind. Kant believed in God because he believed in absolutes. Kant places God as the first cause not as everything that is caused. God creates an infinite universe but is separate from that universe. Kant’s approach could be called deistic. God is the creator; he creates a universe that is infinite and is replete with “complete good.” Spinoza unifies the creator with the creation as he also unified the mind and the body in

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<sup>6</sup> Ibid. Watson, 380

opposition to Descartes's Cartesian dualism. Spinoza's infinite is God, which is the universe. Kant's infinite is the universe, which is created by God, which has the attribute of being infinite. For Spinoza there is one infinite and for Kant there is the infinite universe and God with possessing infinite power.

### **Kant's View of the Infinite Compared with Nicholas of Cusa**

Nicholas of Cusa's view of the infinite is similar to that of Kant's in the respect that they both believe in the separation of perception and actuality. Nicholas of Cusa believed that the universe is infinite in variety and spatially because it is a reflection of God who is infinite. He believes God to be inconceivable and impossible to represent. "And if anyone should set forth any likeness, and say that Thou wert [sic] to be imagined as resembling it, I know in like manner that that is no likeness of Thee." (Nicholas of Cusa). He believes that the universe, which in essence is infinite, cannot be conceived by our finite mind.

"For the intellect is to truth as an inscribed polygon is to the inscribed circle. The more angles the inscribed polygon has the more similar it is to the circle. However, even if the number of angles is increased ad infinitum, the polygon never becomes equal to the circle unless it is resolved into an identity with the circle." (On Learned Ignorance, Nicholas of Cusa)

The mind as being a limited interpreter is a concept shared by both Nicholas of Cusa and Kant.

Nicholas of Cusa stresses "learned ignorance," in understanding the nature of God. The individual must learn that he is unable by his nature to conceive of the infinite. He believes like Hobbes in a universe that is material in substance not made up of corporeal and incorporeal matter. He also like Hobbes thinks that God's form is inconceivable. His universe is an "absolute infinity" which "includeth [sic] and

containeth [sic] all things.” Nicholas of Cusa believed that the physical universe is derived from God and has the attributes of God but is not like Spinoza espouses, one and the same with God. He differs with Hobbes also in that the Universe is not a comprehensible machine but rather a reflection of God which therefor makes it not totally discernable.

“Who could understand the following?: all things are the image of the one, infinite form and are different contingently as if created thing were a god manqué [French, adjective, unsuccessful, abortive or missed], just as an accident is a substance manqué, and woman is a man manqué. For the infinite Form is received only finitely, so that every created thing is, as it were, a finite infinity or a created God, so that it exists in the way in which this can best occur.” (On Learned Ignorance, Nicholas of Cusa)

The universe is the “Absolute Maximality” according to Nicholas of Cusa. Nothing exists outside of it or before it. He believes that the “Infinite Oneness is the enfolding of all things.” The “Absolute Maximality” is the infinite reflection of an infinite God.

“Therefore, a created thing has from God the fact that it is one distinct, and united to the universe; and the more it is one, the more like unto God it is.” (Nicholas of Cusa).

Kant’s view of God differs from Nicholas of Cusa in the proof of existence. Kant denies the Cartesian view that the universe can be deduced from the understood existence of God. Descartes and Nicholas of Cusa assume the existence of God and then create a universe around that fact. Our existence and the existence of the universe are not basis enough for the existence of God for Kant. “His existence must belong immediately to the way in which his concept is posited, for it is not to be found in the predicates themselves.”<sup>7</sup> This view is comparable with Kant’s general view. Nothing can truly be deduced because we simply have perceptions of an unfathomable reality. God cannot be proven to exist, because we cannot conceive of God in his true essence. Nothing is provable because all is simply in relation to our finite experience. Time is a function of

perception according to Kant. We relate things in terms of time in the phenomenon, but God is eternal, which we cannot relate to our reality, which is based on finite time.

Kant believes in God because a cause is necessary to explain existence. In this notion of God as the origin of the infinite he agrees with Nicholas of Cusa.

“There exists something positively necessary. This is an entity which in unitary in its essence, simple in its substance, a sprit in its nature, eternal in its duration, immutable in its constitution, and sufficient in respect to everything possible and actual.”<sup>8</sup>

Kant’s universe is like Nicholas of Cusa’s in that it is infinite in possibilities and this fact is the proof of God’s existence. “The plurality of things arise from the Divine Mind.” (On Learned Ignorance, Nicholas of Cusa). Kant and Nicholas of Cusa believe there is a pervasive and observable harmony to the universe. It is this natural ordering of things that serves as proof firstly of God and secondly of God’s perfect and infinite nature.

“It is not as though God were ground of internal possibility through his will, but rather because the same infinite nature which has the relation of ground to the essence of all things simultaneously has a relation of maximum desire for the greatest consequence given through it, and the latter can be fruitful only on the assumption of the former.”<sup>9</sup>

Nicholas of Cusa and Kant both see a universe of infinite variety and accept God as the cause of this fact. They therefore both logically agree that God is then by nature infinite.

Nicholas of Cusa’s infinite is composed of an “opposition of opposites.” This view correlates with Kant’s view of the noumenon, which contains all that is incomprehensible and true. According to Nicholas of Cusa “the precise truth is incomprehensible.” By the phrase “opposition of opposites” Nicholas of Cusa asserts that the “Absolute Maximality” contains all things and is composed of uniform material thus what appears to us as opposites are in actuality the same with in the whole. Black and

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<sup>7</sup> The One Possible Basis for a Demonstration of the Existence of God, 61, Kant

<sup>8</sup> Ibid. 91

<sup>9</sup> Ibid. 95

white are modes of perception but since God is uniform they are in reality one. Nicholas of Cusa asserts here the difference like Kant between the perceived and truth. The noumenon of Kant can also be said to contain an “opposition of opposites.”

As noted earlier, Kant viewed space and time as modes of perception. For Nicholas of Cusa notions of size are also just finite interpretations of the limitless. “Therefore if you free maximum and minimum to quantity by mentally removing large and small you will see clearly that maximum and minimum coincide.” (On Learned Ignorance, Nicholas of Cusa). Time too is a relative term for both Nicholas of Cusa and Kant. We must have a cause to everything, a birth to explain existence. God though is eternal and therefor has no beginning in time or space. The universe is a reflection of God according to Nicholas of Cusa and caused by the “necessary being” according to Kant. Therefore the universe is homogenous in structure for both Kant and Nicholas of Cusa. For Kant and Nicholas of Cusa: “. . . perfection consists of things that are themselves given through the divine nature . . . and perfection consists of this harmonization.”<sup>10</sup>

### **Kant’s View of the Infinite and Kabbalah**

In the early Kabbalah, we find both agreement and contradiction with Kant in relation to the conception of the infinite. Like Kant, the Kabbalah sees God as being infinite. God is infinite because it is simply unfathomable that he could not be. However, the exact nature of the infinitude of God is unknown. The infinite is discussed in the concept of Eyn-Sof. Eyn-Sof is difficult to define; it is outlined vaguely in the Kabbalah as the name assigned to the infinite. These attributes of Eyn-Sof are called Sefirot.

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<sup>10</sup> Ibid. 95

The true nature of Eyn-Sof is beyond Human Perception. This serves an important purpose in the comprehension of the infinite. God is infinite “so that no man can find out the work which God has made from the beginning to the end” (Explanation of the Ten Sefirot, Kabbalah). If God were finite, he could be understood, which would be a contradiction, because God would thus no longer be God. This concept is similar to Kant in his view of God. For Kant the true nature of anything is inconceivable and can only be understood in the phenomenon. God in both the Kabbalah and in Kant’s philosophy lies beyond the limits of human understanding.

The Kabbalah purposes that everything known to man is limited in nature. We do not see a view of a spatially infinite world. Space in the Kabbalah can be understood like in Kant as a mode of perception. Space is limited unlike Eyn-Sof. The universe may still be spatially infinite but we cannot perceive it as such. The Eyn-Sof is “perfection without imperfection.” Limits are imperfect according to the Kabbalah because limits are a quality of the finite. “And if you claim that the first limited being that is brought into existence from him is this world lacking perfection then you ascribe imperfection to the force which stems from Him” (Explanation of the Ten Sefirot, Kabbalah).

God in the Kabbalah is believed to permeate all reality, a view that is similar to the Spinoza who was an excommunicated Jew. “He is the essence of all that is concealed and revealed” (Explanation of the Ten Sefirot, Kabbalah). Kant does not believe the universe and God to be one and the same but he does believe that the nature of the infinite to be hidden and apparent. We can perceive a finite view or at least some attributes of the infinite universe in the phenomenon but not the actual infinite of the noumenon.

The relationship between Sefirot and Eyn-Sof can be compared to the relationship of the phenomenon to the noumenon. The ten Sefirot discussed are the limits of Eyn-Sof. The Kabbalah and Kant both believe the universe to have an underlying order. This underlying order is the proof of God's existence according to Kant and the proof of God's perfection according to the Kabbalah.

"If in nature a structure be discovered that seems to be good for the sake of a special purpose, while it would not have emerged according to the general properties of matter alone we regard this provision as contingent and the consequence of a choice . . . No universal cause can be given as to why the claws of cats, lions, and many others are built so as to be spurred, that is, so they may be retracted, except that some creator has ordered it for the purpose of protecting them against dullness since these animals must have adequate tools in order to grasp and to hold their prey."<sup>11</sup>

Kant and the Kabbalah both hold that observable order is proof of an active creator.

The Kabbalah takes the view like Einstein that "God doesn't play dice." "All things which are the outcome of a random accident have no order" (Explanation of the Ten Sefirot, Kabbalah). The universe is not a divine doodle but rather planned perfection. The Sefirot is the order in the Kabbalah as well as the perceived reality. In this view it differs from Kant. "Every being is from Eyn-Sof, and nothing exists outside of Him"

(Explanation of the Ten Sefirot, Kabbalah). Kant does not entirely agree with this view. Everything is composed of the noumenon but God is separate, an infinite creator not the creation. Kant and the Kabbalah do agree on the unity of the noumenon and Eyn-Sof. For Kant the noumenon is a homogenous whole, created by the Divine. It is unified in that is the sum of all that is and therefor exists as pure truth which cannot be broken down because it is perfect and whole. To borrow from Aquinas if it lacked unity it would be made "finite by form." We classify the universe in order to understand it according to Kant. This is the same goal as the use of Sefirot. "Everything subject to limitation is

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<sup>11</sup> Ibid. 105

bounded by substance and place, for there is no substance without place and there is none except by means of substance” (Explanation of the Ten Sefirot, Kabbalah). The Sefirot attempts to provide explanation of Eyn-Sof for our bounded consciousnesses just as the phenomenon is our representation of the noumenon.

## **Kant’s View of the Infinite compared with St. Thomas Aquinas**

In the world of Saint Thomas Aquinas, we see both contradiction and agreement with Kant in respect to the infinite. Aquinas predates Kant by almost 500 years. His views stem mainly from an interpretation of Aristotle who he refers to as the “Philosopher.” Aquinas believes the universe to be infinite as a creation of an infinite God. He does not unlike Kant believe in a physical infinite.

Aquinas rejects the prevailing notion of his time that perfection is a whole that cannot be broken down. Objects that are infinite were believed to be combinations of wholes. The set of natural numbers is infinite because it is a string of parts, 1,2,3... God could not be infinite, because then he would have to be composed of various parts. To say that God is not a whole was to say he is imperfect, and God must by nature be perfect. Aquinas developed a new vision of God to reconcile this contradiction. In order to do this; he developed a system where spatial infinity and non-spatial infinity are not dependent on each other. He stated that there is a distinct division between matter and form. Matter is restricted, or made “finite by form.” Before it is conceived in form, matter has an infinite potential of forms. When it is brought into one form, it is made whole and perfect. Conversely, form is not made perfect by matter, but is restricted by matter. Since God is a non-material being, a form not expressed in matter, it is possible

for Him to be infinite and perfect. “Since therefore the divine being is not a being received in anything, but God is His own subsistent being” from which “. . . things flow infinitely.” (Summa Theologica, Aquinas).

Like Kant, Aquinas believed God to be infinite. However, his methodology for arriving at this assertion differed in fundamental aspects from Kant. God is infinite and independent of a physical infinite. For Kant the existence of the physical infinite provides the limited proof of God’s existence and vice versa.

“Where shall creation cease? It is evident that in order to think of it as in proportion to the power of the infinite being, it must have no limits at all . . . the field of the revelation of the Divine attributes is as infinite as these attributes themselves.”<sup>12</sup>

Aquinas simply presupposes the existence of God based on the notion of causality. For Aquinas actual physical infinity does not exist. Every body has a surface. This surface is subject to change, and may, in fact, change an infinite number of times. This view is similar to Kant in that form can be viewed as perception. Matter is in motion but is limited by form at given points. Wood is first limited by the form of a tree when the tree is chopped down and made into a table the wood then becomes limited by the table and so forth. At any given time, “every natural body has some determined substantial form” (Summa Theologica, Aquinas). Matter can be described by occupying a particular time and place. Kant would call these modes of perception and Aquinas forms. Aquinas differs from Kant in that he does not see an infinite in a continuum of forms. Everything has form, which makes it finite including the universe itself.

Kant presumes the existence of a physical infinite in his noumenon. As discussed earlier, Kant excepts the notion of an infinite material universe because if God is infinite,

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<sup>12</sup> Cosmogony, 139, Kant

and is related proportionally to the noumenon. According to Aquinas God has limited abilities of creation though.

It is against the nature of a produced thing for its essence to be its being, because subsisting being is not a created being; and hence it is against the nature of a produced thing to be absolutely infinite. Therefore, as God, although He has infinite power, cannot make a thing to be not made (for this would imply that two contradictories are true at the same time), so likewise He cannot make anything to be absolutely infinite. (Summa Theologica, Aquinas)

Anything God creates cannot be infinite. An object may in essence be infinite, but it is contrary to its nature for that object to be infinite physically. God may have infinite and absolute power of creation, but he is restricted by his own definition of creation. Kant disagrees because form would simply be a perception not reality. We are limited in seeing things with form because our form limits us. Kant takes Aquinas's view one step further by differentiating between current state and actual essence.

### **Kant's View of the Infinite Compared with the Contemporary View**

The Hubble Space telescope has given scientists a new and more powerful tool with which to view the heavens. Patches of sky the size of a speck of dust to the naked eye has proved to be filled with billions of galaxies. As our ability to view the universe increases the size of the universe increases with it. Despite scientific observations our view of the universe today is less certain than any other time in history. Our increased technology has proven to be, as Nicholas of Cusa would state "learned ignorance." Despite our current uncertainty, Kant's view of the infinite is still possible based on current understanding of the cosmos.

One of the key components of Einstein's famed Theory of Relativity is his connection of space and time to create the uniform concept of a space-time continuum.

As noted *ad infinitum* in this paper Kant viewed space and time as modes of perception. This fits well with Einstein's conception of space-time. Objects are fixed in a four dimensional universe, an object is defined not only by its three dimensional position but also by its temporal state. Time is thus a relative term. Our perceived position in space-time can be seen as an example of Kant's phenomenon in a finite (and closed universe). Conversely in an infinite universe the reverse could be stated, space-time represents the noumenon. According to Einstein gravity is explained by the curvature of space-time. By this reasoning it could be stated that if space-time were limitless then gravity itself would be an example of the phenomenon and the universe would be the noumenon.

Einstein's famed equation  $E=mc^2$  united matter with energy. He proved that matter is connected with energy because it can be converted into energy. This explains how atomic forces internally fuel stars. According to this view the universe is composed of an essentially uniform element. The state of anything is transient and made "finite by form." Again this view coincides with Kant's view that we can only view the infinite in a limited manner. Our finite minds view matter and energy, which is in perpetual change, as existing in one state. An example of this is when we look up at the sky we are looking at stars millions of light years<sup>13</sup> away. In essence according to a traditional view we are looking back in time when we look up. If space and time are modes of perception we are viewing objects in relation to our current fixed position within the whole of space-time. Space-time is uniform because it is made up of energy and matter and matter and energy equate. Space-time is the noumenon, one eternal dimension that we must view as four.

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<sup>13</sup> a light year is the amount of space light travels at its constant rate in a year, it is a measure of both time and space

Recent observations have shown that galaxies are moving apart at an increasing rate. In the current view of universal form and origin, the “big bang,” it is assumed that the universe is expanding. This evidence contradicts this universal model because the initial energy of the big bang, which caused universal expansion, should be slowed by the attraction of galaxies towards one another, resulting in an eventual hypothesized “big crunch” or universal collapse. If the universe is infinite and therefore having no beginning or end in space or time, the view held by Kant, galaxies moving away from each other would be simply in random motion or at least motion in an ordered movement inexplicable by our finite perception in a limitless plane. It is believed that the galaxies are moving away from one another and us because we observe the change of their light<sup>14</sup>. By this we assume the universe to be in relation to our fixed position. The myopic nature of science has changed little from the days when people believe in the geocentric model of the universe. In a limitless plane objects cannot be ascribed a true position because there are no boundaries to relate to. Kant attacks “Leibniz’s view of space as a system of relations between objects which can themselves be identified independently of their spatial position.”<sup>15</sup> Humans can only relate sensations to experience and thus our erroneous conceptions of the universe are created.

According to the second law of Thermodynamics, time is given direction because entropy increases as time goes forward. Entropy or the rate of disorder, according to Kant is only what we perceive to be disorder. If we apply this law to evolution for example, ten species came from one common ancestor. Over time that one species was broken down into the ten species hence creating more disorder. Kant would say that we only perceive

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<sup>14</sup> this technique was first employed by Hubble and is known as the “red shift” theory

<sup>15</sup> The Arguments of the Philosophers: Kant, Walker, 29

this as disorder, he would not argue that the universe is becoming more diverse he would simply accept it as natural.

“If, therefore, the creation is infinite in space, or at least has really been so in its matter from the beginning, and is ready to become so in form or development, then the whole of space will be animated with worlds without number and without end.”<sup>16</sup>

We only perceive the development of the infinite number of possibilities that have always existed. An infinite number of heavenly bodies that have always existed and will always exist. This view is like that of Parmenides of Elea: “One should both say that Being Is; for To Be is possible, and nothingness is not possible.” The potential to exist in an infinite universe is being. This can also be compared to Borges’s Library of Babel. The library contains books with all possible combinations of all letters and symbols thus containing all that is written and all that can ever be written. The infinite universe is like this too in that it has always contained all possibilities. Attempting to find an order to the infinite universe appears as an increase in entropy to the finite mind. The infinite universe is in actuality like Borges writes “unlimited and cyclical.”

Despite two hundred years of scientific advancement Kant’s arguments remain as cogent today, as they did in his own time. His premises, which appear in verbose form, are in essence simple and far ranging. His separation between the perceived reality and actual reality is his greatest contribution. The universe is comprised of infinite beauty and form according to Kant. We can never fully grasp the infinite nature of the universe because it would require infinite time. Humans despite their best efforts are finite, and mortal. We cannot “see the world in a grain of sand, and a heaven in a wildflower, hold infinity in the palm of your hand, and eternity in an hour.”<sup>17</sup> We live as finite creatures’ blind to the infinite variety and wonder that our universe holds. This is not to say that the

infinite is completely beyond reach. “Though inland we be, our souls have sight of that immortal sea.”<sup>18</sup> Kant’s universe is infinite in composition and thus in one day lies all other days that have come to pass and will be. Experiencing the finite attains the appreciation and our superlative understanding of the infinite.

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<sup>16</sup> Cosmogony, 140, Kant

<sup>17</sup> Auguries of Innocence, William Blake

<sup>18</sup> Ode on the Intimations of Immortality from Recollections of Early Childhood, William Wordsworth