

THE ORIGIN AND THE END OF ALL THINGS

Part I

Causal Argument for the Existence of a Supreme Being

(A Theory of Universal Causation by Means of Pure Reason, in Answer to the Challenge of Immanuel Kant)

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CONTENTS

INTRODUCTION ... 3

THE FORMATIVE PHASE:

WITH REGARD TO AN ULTIMATE BEGINNING,
THE IMMEDIATE DIFFICULTY POSED BY THIS BEGINNING,
THE SUBSTITUTION OF A CRITICAL DEFINITION IN PLACE
OF OUR COMMON-SENSED NOTION OF NOTHING,
AND THE RESULTING CAUSAL PRINCIPLE ... 11

THE PRINCIPLE OF DIVERGENCE AND INTENSIFICATION ... 27

THE PRINCIPLE OF EQUIVALENCE ... 30

THE CREATION PHASE:

THE PRINCIPLE OF PROGRESSIVE CREATION ... 32

EMPIRICAL AGREEMENT AND OTHER CONSIDERATIONS ... 38

APPENDIX I

CAUSAL ARGUMENT IN ABBREVIATED FORM ... 42

APPENDIX II

CAUSAL ARGUMENT IN ABSTRACT DIAGRAM FORM ... 49

THE ORIGIN AND THE END OF ALL THINGS

PART ONE:

CAUSAL ARGUMENT FOR THE EXISTENCE OF A SUPREME BEING

Introduction

I

There will always be those who will fail to appreciate the need to take the cosmological problem dealt with here, namely the problem of universal causation, to the level of an argument such as this, thinking that this problem has long ago passed from the hands of philosophers into the much more capable hands of theoretical physicists and cosmologists; however these empirically grounded sciences, despite their far-reaching scope and their pointing us in the proper direction toward the solution, can never obtain to this solution in its fullness.

The only means by which a full solution to this problem is made possible is afforded by pure speculative reason, or what we can call *pure philosophy*, and for those who might ask: what is pure philosophy? the word philosophy is derived from the Greek terms *philo*, meaning love, and *sophos*, meaning wisdom, so philosophy can be said to mean, literally, *the love of wisdom*. And as for the term pure, it can be understood as a philosophy consisting of principles and or judgments grounded on reason without the assistance of experience. Though a caution appears in order here for this argument is not intended so much for those who will, upon immediate reflection, be inclined to mistake their natural skepticism as sound rational grounds for dismissing even the suggestion as to the possibility of an actual solution to this problem. Rather, this argument is intended for those who are open-minded enough to suspend their preconceived notions as to what can and what cannot be understood at least for the time it takes to exercise their capacity to think and reason on the more critical level that such a problem as this demands, and in so doing, arrive at a logical, rational judgment, one way or the other.

II

There is one question that is of a certain transcendent yet fundamentally important and practical nature that the human mind can never stop pondering it, yet that prompts a greater degree of skepticism than any other question that can be asked. As the German mathematician/philosopher Wilhelm Gottfried Leibniz put the question: “Why is there something rather than nothing?” Or, to put this question in other words: “How can we account for the existence of this reality that we experience?”

Despite philosophers, theologians, and scientists having proposed various answers to this question these answers fall short of a complete solution for they all introduce the idea of an initial beginning that is itself open to question with regard to its origin. As Immanuel Kant wrote concerning the beginning proposed by theologians: “We cannot put off the thought, nor can we support it, that a Being, which we represent to ourselves as the highest among all possible beings, should say to himself, I am from eternity to eternity, there is nothing beside me, except that which is something through my will,—*but whence am I?* Here all sinks away from under us”¹

Even where the intuitive faith of those who believe in the existence of a Supreme Author of creation, grounded on the conviction that this reality that we experience cannot be explained away as a mere accident, there are problems beyond that pointed out by Kant that are as equally difficult, such as the problem of evil. How can those who believe not only in the existence of a Supreme Being but a Supreme Being who acts benevolently toward humanity justify such a belief given the relentless suffering heaped upon humanity not only by humanity itself, but by the natural world that is the supposed creation of this Being? Does not this untold suffering attest to the inescapable fact that we are indeed alone in the universe, and there is no meaning to our lives beyond the temporal, and ultimately inconsequential one that we can fashion out for ourselves?

It is not the intention here to provide an answer to such a question for it remains secondary to the main question that demands first answering whether the belief in the existence of a Supreme Being can follow on strict logical, rational, philosophical grounds. As yet, philosophers have failed to advance anything that can withstand the objections of more critically minded philosophers, agnostics, and atheists. As one of the most outspoken and prominent atheists attests, the arguments offered by philosophers and theologians to this point are not only weak, but they are *spectacularly weak*.²

Despite this shortcoming however it would be a mistake to take it for granted that our scientifically enlightened understanding provides sufficient reason to cast aside the belief in a Supreme Author of creation. All this scientific understanding, regardless of however vast its extent, has not answered the question as to how inanimate matter—without any intelligent or purposeful direction—has managed to organize itself over the course of the universe’s 13.8 billion year history into galaxies populated by countless stars, and on our own planet into living organisms, and over the course of human evolution, into higher states of consciousness.

¹ Immanuel Kant, *Critique of Pure Reason* (1781—first edition) trans. F. Max Müller (Garden City, New York: Anchor Books, Doubleday & Co., 1966), 409 [A: 610–14; B: 638–42]. Numbers in brackets are from the first and second editions of the *Critique*—hereafter: *CPR*.

² Richard Dawkins, *The God Delusion* (Houghton Mifflin, New York, 2008), 24.

Despite the attempts on the part of some scientists to raise evolutionary theory to the level of a universal theory, or what might be called a *first principle*, evolutionary theory was never meant to provide an answer to a question such as that posed by Leibniz. The book Darwin wrote is called, “On The Origin of Species ...” not, “On The Origin of the Cosmos ...” and it is of limited, not universal explanatory scope. And while it can be conceded that the evidence upon which evolutionary theory rests is enough to refute the naïve and disingenuous creationist notion that the Earth is only 6,000 years old,³ its limited explanatory scope, as the account of the causal agency of natural selection, does not provide sufficient rational grounds to cast aside the idea of a Supreme Author of creation.

There is also the common notion that the belief in a Supreme Being, grounded upon faith alone, is at odds with reason. Faith by its own definition, as some have argued, is blind, for if it were grounded on knowledge then this knowledge would be enough to convince us, and this would negate the role of faith.⁴ The following argument however, realized through an exercise of pure speculative reason undermines the idea that an intuitive faith in the existence of a Supreme Being must by definition be blind, and further, it offers rational grounds to cast aside the opinion that such an exercise of reason can only lead to false, illusionary Ideas, and in this may even prove an impediment to faith. To the contrary, the *a priori* principles of this argument provide a rational underpinning to faith, for they lead to the inescapable conclusion that there does exist a Supreme Being to whom we may attribute the intelligent order reflected in creation, however it remains to be seen exactly what such a proof entails, for the ordinary orthodox ideas entertained by many concerning the nature of such a Being will no doubt be found to conflict with the idea of such a Being as proposed here. Nevertheless, these orthodox beliefs have left in their wake a number of problems that have plagued both theologians and philosophers ever since they began inquiring into such matters, and here theologians and philosophers have before them a solution that overcomes these otherwise persistent and insoluble problems.⁵

While this argument can be called a dogmatic system of metaphysics this cannot be otherwise for its principles are *a priori*, meaning that they are not chosen arbitrarily, but rather, they follow *necessarily*. Hence, this argument is not left open to a wide assortment of possibly conflicting interpretations, but it leads from a straightforward and necessary

³ The first two verses in the book of Genesis tell us that the Earth was in a state of disorder, leaving open the possibility that a period of time that is not specified elapsed between the events spoken of in these two verses. If the literal creationist interpretation is correct and no such period of time elapsed between these two verses then a conundrum arises, for we then have a supposedly Supreme Author of creation engaging in an initial botched act of creation (verse two) that demands an immediate remediation effort on the part of this same Supreme Author of creation. If this is so, then there is no reason why we should attribute to such a bungling architect the characteristics of omniscience and omnipotence.

No such conundrum arises however when one allows for an unspecified period of time elapsing between the first and second verse. The error commonly made is for readers to assume that all things follow in scripture in chronological order, even though there are scholars who know this is not so. As for what might have happened to reduce the Earth to the state of disorder mentioned in the second verse there is nothing spelled out in the book of Genesis (the explanation can be found elsewhere), but there is nothing required for the purpose of debunking the creationist interpretation aside from this unavoidable conundrum they bring upon themselves along with the scientific evidence that pushes the Earth’s history back 4.6 billion years.

⁴ Richard Dawkins, *The Selfish Gene* (Oxford: Oxford University Press, 1989), 198.

⁵ For instance: if, as the Catholic teaching states, God does not change, but the world this God created does change, then how can this God who is resistant to change remain consciously aware of the continually changing reality of His own creation?

premise to a straightforward and necessary conclusion. And on this critical point that leads *unavoidably* to Kant I feel obliged to offer the reader a choice, for depending on one's individual preference the reader can choose to read the first version with the most pertinent quotes from Kant, or skip this version entirely and read the easier to assimilate second, abbreviated version of this argument, for as this more concise version shows the very same argument with the very same premise and conclusion can be formulated in a number of different ways, and with or without any reference to Kant. However, for those who regard Kant to be indispensable, given the problem addressed, then Kant (commenting on the difference between philosophers better suited to practical matters and those more suited to the kind of abstract reasoning reflected in this argument) explains the kind of certainty in demand: "For the latter [metaphysicians] profess to be speculative philosophers; and since, when judgments *a priori* are under discussion, poor probabilities cannot be admitted (for what is declared to be known *a priori* is thereby announced as necessary), such men cannot be permitted to play with conjectures, but their assertion must be either science or nothing at all."⁶

It might be thought then that these principles are open to the counterargument that they are not *a priori*, and hence not necessary, though ultimately, this will prove impossible, and while the further counterargument might be made that these principles, even if it be conceded that they are *a priori*, and necessary, being grounded on pure reason, cannot be applied to the world of experience—this being Kant's critique against all ontological proofs (arguments from pure reason alone) for the existence of God. But if this objection is raised the obligation rests on those who so object to explain why an argument such as this, grounded entirely on pure reason, but that still agrees not only with everything that science can tell us, but everything that we can know from our personal experience, cannot be considered relevant, and why those predictions of a strictly empirical nature that follow from it can prove of no practical consequence. As for such a possible objection it should be understood (though it certainly is not understood even by scholars otherwise well versed in Kant's critical philosophy) that Kant's critique was not meant to apply without exception to all proofs from pure reason, but rather, it was meant to apply specifically to arguments that lacked empirical validation of any kind, and that could not therefore help us make sense of the world of experience.

Despite the widely held opinion that speculative reason cannot lead to an understanding applicable to the world of experience, the following principles can indeed help us make sense of the world of our practical experience, and as such it can be argued that these principles fall completely in line with Kant, and moreover, the pure understanding thereby realized can help not only clarify Kant, but it can help to point out for those who wish to comprehend Kant on a deeper, not merely academic level, where his readers are most likely to interpret his critical philosophy in such a way as to bolster the prejudice shared among many philosophers, and non-philosophers alike, against pure speculative reason. Furthermore, and despite what has just been said, any objection that these principles cannot be supported empirically should be accompanied by a proof that this argument stands in conflict rather than in agreement with that science most closely

⁶ Immanuel Kant, *Prolegomena to Any Future Metaphysics*, ed. and trans. Lewis White Beck (Indianapolis, NY: The Library of Liberal Arts, 1950), 25–6 [277–79]. Numbers in brackets refer to the *Prolegomena* in *Kant's Werke*, vol. 4 (Berlin: Druck und Verlag von Georg Reimer, 1911). Hereafter: *Prolegomena*.

associated with the same problem, namely the science of big bang cosmology, however it will be found that there is nothing in this argument that conflicts with this science, but to the contrary, it will be found that it not only adheres to the findings of big bang cosmology, but it resolves certain persistent, and otherwise insoluble problems associated with big bang cosmology.

Barring the possibility of showing any conflict in this regard the only remaining objection that can follow is that the science of big bang cosmology itself is a highly questionable theory that can lend nothing to this argument in the way of empirical validation, but while there may be doubts shared by those who have to some extent familiarized themselves with this theory there are no such similar doubts shared among scientists, and so the obligation that rests on those who find reason to question this general consensus among the experts is to provide counterevidence to the theory strong enough to turn this general consensus into general disagreement—but to date all such attempts have proved futile.

Furthermore, reference to big bang cosmology is not intended to provide a proof for the principles here expounded. The proof for these principles rests in their necessity and how well they can help us make sense of the world of our experience. It is simply that reference to big bang cosmology cannot be avoided for this argument provides an explanation for the causal process that followed through to the same beginning that the science of big bang cosmology points back to. So it can be said that where the science of big bang cosmology leaves off the science of metaphysics—the possibility of which remained the fundamental focus of Kant's critical philosophy—begins.

The four principles that here provide a solution to the question of universal causation constitute together a synthetic cognition *a priori*, according to Kant's definition, and as such they present a positive solution to the problem Kant calls the first antinomy—the first obstacle facing pure reason on the path to what he calls *a science of metaphysics*. Although the proof provided here for the thesis as opposed to the antithesis is grounded on pure reason all that is needed for the independent reader of this argument to reach the same judgment found here is their own natural intuitive need to press the question concerning the ultimate origin of all things as far as logically possible.

For instance, when theoretical physicists propose that the universe began from an original condition that they can define in certain mathematical terms, can we say that the theory grounded on such a premise qualifies as an ultimate solution to the question?

As intimated in what has thus far been said, if the premise proposes a preliminary condition that follows through to a question regarding the cause of that condition then such a solution cannot be called an ultimate solution, regardless of however close it might approach to an ultimate solution. Such preliminary conditions raise the problem of an infinite regress of causes—from which the idea of an ultimate first beginning can never follow. As the problem of an infinite regress points out, we have the right to expect, and we should expect, that an ultimate solution must be such that it leaves us with the idea of a first beginning that defeats our natural intuitive need to press the question concerning the ultimate origin of all things any further.

This is where all theorists using an empirical approach to the problem fail by their very nature, for being bound to present an empirically definable premise as their ultimate beginning they are left open to the question as to what preceded that empirically definable premise to bring that condition about.

This same critical impasse also confronts those apologists who adopt the even more complex premise of an Eternal Being, for such a premise is also left open to this same intuitive insistence on pressing the question as far as possible.

The reason why there is so much skepticism displayed toward this problem of universal causation is due not only to the obvious difficulty it presents but it is also due to the vast assortment of conflicting solutions that have been offered that cannot be called solutions in the ultimate sense. Moreover when Immanuel Kant searched out the lengths and breadths of pure reason in order to determine its limitations, and set forth the parameters that were thought to define its only legitimate sphere of employment, this skepticism was thought to be given its strongest possible philosophical sanction, for following Kant, speculative philosophers, it was assumed, no longer had any rational grounds for seeking positive solutions to such problems as the finitude or infinitude of the universe, or the existence of a necessary, Eternal Being—these being mere Ideas (or as Kant called them *noumena*) that transcend the finite scope of our practical experience and understanding. Yet if this is so, what then is to be said of this natural propensity that compels reason to seek answers to these very questions, and that in turn demand reaching through pure speculative reason beyond the limits of our practical experience?

Here the bias of many philosophers who are by nature more inclined toward practical moral philosophy and predisposed against speculative reason is seen in the orthodox interpretation of Kant's critical philosophy as paving the path toward nothing other than Kant's own regulative (moral) philosophy, stripped bare of what they regard as its more noble, but pretentious transcendent aspirations. The common opinion here is that when reason strays from this more practical sphere into this transcendent sphere it embarks in the dubious occupation of spreading fallacious arguments detrimental to the right thinking of the masses, despite philosophy having been born out of the entirely free and unfettered speculations of the early Greek philosophers, or pre-Socratics as they are called, and despite Kant's own remark: "Who can satisfy himself with mere empirical knowledge in all the cosmological questions of the duration and of the magnitude of the world, of freedom or of natural necessity, since every answer given on principles of experience begets a fresh question which likewise requires its answer and thereby clearly shows the insufficiency of all physical modes of explanation to satisfy reason?"⁷

This statement on Kant's part is reciprocated here in the question: "Where in all the answers afforded thus far is there to be found any rest for our natural intuitive need to press the question concerning the ultimate origin of all things as far as logically possible?"

It is for those who hold that reason cannot be satisfied with any of these supposed solutions to the problem of universal causation, or with the stifling skepticism of rejecting even the possibility of a positive solution to such a problem, that this following, strictly philosophical argument for the existence of a Supreme Being is put forth.

III

This argument is provided in answer to the challenge voiced by Immanuel Kant in his *Critique of Pure Reason*, however the misunderstandings that immediately plagued the

⁷ Ibid, 100 [351–352].

publication of his *Critique* led Kant to write a second work: *Prolegomena to Any Future Metaphysics That Might be Brought Forth as a Science*. With these two works Kant hoped to guide speculative philosophers to the end of *a science of metaphysics*.

While the solution to the problem of universal causation provided here adheres to Kant's critical demands for a science of metaphysics as outlined in these two works, it should be understood that the following does not purport to be a science in the proper sense, though it allows for predictions of a strictly empirical nature that must prove to be of the utmost practical importance, and that once finally realized will provide the true test of this argument's validity. What Kant meant by a science of metaphysics was not so much a science that made definite conclusions or predictions the truth or falseness of which could be tested empirically, but what he meant was a system of objectively valid *a priori* principles—applicable to the world of experience—that carried with them the weight of necessity, as opposed to mere conjectures carrying with them no such necessity.

Something similar to what Kant demanded from speculative philosophers can be found in the theories of theoretical physicists that are thought out entirely in the mind, independently of what they can know through direct observation and experience, but that are yet understood to be universally and objectively valid. This objective validity was a crucial point for Kant such that prior to the consideration of any proposed solution to the challenge he issued to metaphysicians he first demanded an answer to the question: "How are synthetic cognitions *a priori* possible?"⁸

The following argument qualifies as a synthetic cognition *a priori*, according to Kant's definition, but Kant asks: *how is it possible to arrive at such a pure understanding?*

Yet, for those not familiar with Kant, we might well ask: What, exactly, did Kant intend by asking this question?

The intent behind this question points forward first of all to the possibility of what we can call a *synthesis of pure understanding*. For instance, if we take this sentence as an example, each word in this string of words works with other words in this string to convey a certain understanding. The words, if lifted out of this string, cannot by themselves convey this understanding. It is only when the words are combined in a synthesis that we can gain this understanding. By synthetic cognition *a priori* Kant further implied a synthesis of pure understanding consisting of judgments wherein each judgment in its interconnectedness with the other judgments follows through to a pure and *necessary* understanding, as opposed to an understanding grounded on experience and that does not follow necessarily. It is also a pure philosophical understanding that can only be realized through a process of abstract reasoning, and Kant uses the example of mathematics as a system of *a priori* understanding employing abstract symbols to indicate what he demanded on the part of metaphysicians, and any proposed solution to a cosmological problem such as his first antinomy.

To answer Kant's question, the synthesis of pure understanding that here follows is made possible through the utilization of the four universal concepts of space, time, mass, and most importantly, of mind. There are no other universal concepts that need to be employed to the end of grasping an understanding of this positive solution to Kant's first

⁸ Ibid, 25 [277–278]

In following with Kant's demand the answer I have given to this preliminary question can be found in the essay, "Beyond Kant and Hegel, In Answer to the Question: 'How Are Synthetic Cognitions *A Priori* Possible?'" *The Review of Metaphysics*, March 2013, Vol. LSVI, No. 3, issue 263, 469–93.

antinomy, however the term *mind* must be understood in the context of how it is defined in this argument as opposed to how it might be defined apart from this argument, and for which there can be found no general consensus.

The four *a priori* principles that can be formulated and understood through the utilization of these four universal concepts are:

1. The Causal Principle.
2. The Principle of Divergence and Intensification.
3. The Principle of Equivalence.
4. The Principle of Progressive Creation.

The first principle explains the absolute motivating factor to the causal process, or series, whereby the four universals of space, time, mass, and mind, can be understood as having advanced from their simplest, most unified, or least differentiated of possible states, to their most complex, and most differentiated of possible states.

The second principle explains, through the concept of cause and effect, the necessary change brought about by this series.

The third principle explains why this series obtained to a final critical stage that resulted in the inevitable end of this series.

These first three principles can be called the Formative Phase of the causal process that accounts for the origin of the four universals of space, time, mass, and mind.

The fourth principle, providing a strictly rational, *a priori* proof for the existence of a Supreme Being, can be called the Creation Phase of this causal process.

The two most significant conclusions of this argument are, first: the universe is not the result of an impossible defiance of the infinite odds stacked against any such complex reality arising by mere accident; rather, the conclusion is that the universe exists *necessarily*, meaning by this that it could not have failed to come into existence, and if it were cancelled out of existence it would once again emerge into existence through the very same causal process outlined by the four *a priori* principles expounded here; and second: the universe exists as the intentional creation of what can best, or most properly be defined, as a Supreme and Absolute Mind.

CAUSAL ARGUMENT FOR THE EXISTENCE OF A SUPREME BEING

—THE FORMATIVE PHASE—

WITH REGARD TO A NECESSARY, ULTIMATE, FIRST BEGINNING,

THE ONLY POSSIBLE MEANS OF OVERCOMING THE IMMEDIATE

DIFFICULTY POSED BY THIS BEGINNING,

THE SUBSTITUTION OF A CRITICAL DEFINITION IN PLACE OF

OUR COMMON-SENSED NOTION OF NOTHING,

AND THE RESULTING CAUSAL PRINCIPLE

The pure understanding conveyed by means the four *a priori* principles of this argument could have been conveyed in any number of different ways, as shown given the three different versions offered here, with this longer version quoting the most relevant remarks of Kant, followed by the abbreviated version of this argument, and then a simpler abstract diagram of the argument, but regardless of the possibility of conveying this argument in various different ways the same premise would invariably follow through to the same conclusion.

The only philosopher who foresaw the possibility of such an *a priori* solution as offered here and who went so far as to predict not only its inevitability, and provided unmistakable clues as to its characteristic form, was Immanuel Kant, and so it becomes obligatory to quote Kant to show (for the sake of those who would doubt this interpretation of Kant) where this is so. As Kant remarks in the second to last paragraph of his introduction to the *Prolegomena*: “But he who undertakes to judge or, still more, to construct a system of metaphysics must satisfy the demands here made, either by adopting my solution or by thoroughly refuting it and substituting another. To evade it is impossible.”

Kant here is entirely justified in stating that it is impossible to evade his critical demands for there is no path toward a positive solution to the cosmological problem here addressed other than the path where we are brought face to face with the very obstacles outlined by Kant, and the only manner of overcoming these obstacles is through, as Kant understood, a system of *a priori* reasoning that follows *necessarily*.

While it might be thought that an eighteenth century philosopher speaking without the benefit of the scientific advances present day philosophers have at their disposal, of cosmological problems—that have supposedly passed from the hands of philosophers into the hands of theoretical physicists and cosmologists—can be of little or no relevance for us today, this argument shows why such an opinion, which is hardly an opinion that will be shared by all, cannot be reasonably justified. Kant is not only of continuing relevance but his insights outstrip even now the insights of many if not most present day philosophers, including a great many who count themselves among Kant's most ardent disciples, but who in their deeply felt prejudice against pure speculative reason, cannot but fail to appreciate the far-reaching scope of Kant's critical philosophy. Yet despite this all too easily formed distrust of speculative reason the challenge answered by this argument can be understood most clearly in the context of Kant's response to an unfavorable review of his critical philosophy, as follows:⁹

He (Kant's reviewer) seems not to see at all the real matter of the investigation with which (successfully or unsuccessfully) I have been occupied. It is either impatience at thinking out a lengthy work, or vexation at a threatened reform of a science in which he believed he had brought everything to perfection long ago, or, what I am reluctant to suspect, real narrow-mindedness that prevents him from ever carrying his thoughts beyond his school metaphysics.¹⁰

That my suspicion is not without foundation is proved by the fact that he does not mention a word about the possibility of synthetic knowledge *a priori*, the special problem upon the solution of which the fate of metaphysics wholly rests and upon which my *Critique* (as well as the present *Prolegomena*) entirely hinges. ... The reviewer, then, understands nothing of my work and possibly also nothing of the spirit and essential nature of metaphysics itself.

I challenge my critic to demonstrate, as is only just, on *a priori* grounds, in his own way, any single really metaphysical proposition asserted by him.

He finds in these *Prolegomena* and in my *Critique* eight propositions of which one in each pair contradicts the other [the four antinomy], but each of which necessarily belongs to metaphysics, ... he has the liberty of selecting any one of these eight propositions at his pleasure and accepting it without any proof, of which I shall make him a present, but only one ... and then of attacking my proof of the opposite proposition. If I can save this one and at the same time show that, according to principles which every dogmatic metaphysics must necessarily recognize, the opposite of the proposition adopted by him can just as clearly be proved, it is thereby established that metaphysics has an hereditary

⁹ This response of Kant's applies equally to present day Kantians who assume they have an adequate grasp of Kant yet hold the irreconcilable opinion that Kant was opposed to speculative reason. That this conflict reflects only their own predispositions—at odds with abstract thinking, and more at ease with, supposedly, more practical issues—is apparent given the following from Kant's *Prolegomena*: "Mathematics, natural science, laws, arts, even morality, etc., do not completely fill the soul; there is always a space left over reserved for pure and speculative reason, ..." 130 [380–381].

¹⁰ *Ibid.*, 122 [372–373].

The premise proposed here appears in *Beyond Kant and Hegel*.

failing not to be explained, much less set aside, until we ascend to its birthplace, pure reason itself.¹¹

In this passage Kant is unmistakably clear about the whole purpose with which he has been occupied. The challenge he issues along with his outline of this purpose (in the introduction to his *Prolegomena* Kant acknowledges the obscurity and diffuseness of the plan, or *sketch* as he calls it,¹² put forth in his *Critique*) is the very same challenge that he holds out to all speculative philosophers who would employ pure reason to the end of a science of metaphysics.

In the context of the above challenge Kant mentions four sets of contradictory propositions, but it is not necessary for the purpose of the following argument to take into account anything other than the first set of these propositions, as follows:

Thesis: The world [universe] has, as to time and space, a beginning (limit).

Antithesis: The world [universe] is, as to time and space, infinite.¹³

As to the importance of these two conflicting propositions, or this first antinomy, Kant wrote:

I therefore would be pleased to have the critical reader to devote to this antinomy of pure reason his chief attention, because nature itself seems to have established it with a view to stagger reason in its daring pretensions and to force it to self-examination. For every proof which I have given of both thesis and antithesis I undertake to be responsible, and thereby to show the certainty of the inevitable antinomy of reason. When the reader is brought by this curious phenomenon to fall back upon the proof of the presumption upon which it rests, he will feel himself obliged to investigate the ultimate foundation of all knowledge by pure reason with me more thoroughly.¹⁴

And as to any judgment that might follow should one take up this open invitation on Kant's part to, as he puts it, his *critical reader*:

But there are two things which, in case the challenge be accepted, I must deprecate: first, trifling about possibility and conjecture, which are suited as little to metaphysics as to geometry; and secondly, a decision by means of the magic wand of so-called common sense, which does not convince everyone but accommodates itself to personal peculiarities.

For as to the former, nothing can be more absurd than in metaphysics, a philosophy from pure reason, to think of grounding our judgments upon

¹¹ Ibid, 126–8 [369–370]. The fact that Kant issues this challenge shows that his critical philosophy is not, as some suppose, the final word on the subject; yet I have heard from someone who instructs others on Kant's critical philosophy that he sees in Kant no indication of any such challenge. All that I can gather from this objection is that the inherent prejudice that exists in the minds of some against speculative reason runs so deep that it blinds them to those remarks of Kant that clearly expose this bias.

¹² Ibid, 11 [263–264].

¹³ Ibid, 87 [339–340].

¹⁴ Ibid, 88 [340–341], footnote 10.

probability and conjecture. Everything that is to be known *a priori* is thereby announced as apodictically certain, and must therefore be proved in this way. We might as well think of grounding geometry or arithmetic upon conjectures.¹⁵

While the judgment here is that the thesis is true and the antithesis is false there are certain empirically grounded reasons that support this judgment for the thesis over the antithesis, and these reasons are:

1. Our personal experience confirms that all things that exist have come into being from a preceding state of non-being. Not only does this observation apply to all of us, individually, but it can be said that there is nothing within the whole realm of our possible experience that we can point to that can prove to be an exception to this rule. The Earth, the stars, and all the galaxies that populate the universe are all subject to this same process of emerging into being from a preceding state of non-being. The science of cosmology furthermore traces the history of the universe back to the Planck time of 10^{-43} seconds, prior to which the laws of physics break down, and the universe collapses to the point of a singularity—a paradoxical point of zero space-time with infinite density. Thus, it can be said that this same process of all things emerging into being from a preceding state of non-being applies not only to all particular things that exist, but it applies to the universe itself, and so it can be said that this rule is not only particular, but truly universal.

2. From a pure philosophical perspective, our natural intuitive curiosity compels us to question the cause of every definable condition that might be proposed as that ultimate first state from which all things have proceeded into being, and this intuitive need to press this question to this extent applies not only to all things that exist in reality, but it applies to all hypothetical Ideas of either a philosophical, theological, or scientific nature.

To ask the very question: *From where did all things originate?* points in but one direction only, and this is to the thesis of the first antinomy:

The world [universe] has, as to time and space, a beginning (limit).

It also leads to the judgment that the only possible premise, as an ultimate, preliminary condition from which all things have followed, or emerged into being, must be a state so simple in its form that it cannot as all necessarily more complex states, be thought of as having itself proceeded into being from some even simpler, more original, preceding state.

Given these considerations we can then go on to take a more critical look at the first antinomy and the proof of the antithesis, put forth by Kant as:

For let us assume that it [the universe] has a beginning. Then, as beginning is an existence which is preceded by a time in which the thing is not, it would follow that antecedently there was a time in which the world was not, that is, an empty time. In an empty time, however, it is impossible that anything should take its beginning, because of such a time no part possesses any condition as to

¹⁵ Ibid, 117–18 [369–370].

existence rather than non-existence, which condition could distinguish that part from any other (whether produced by itself or through another cause). Hence, though many a series of things may take its beginning in the world, the world itself can have no beginning, and in reference to time past is infinite.¹⁶

This proof of the antithesis, in opposition to the proof of the thesis, is grounded on the presumption that what remains, if all things that exist are done away with, is an empty time, or simply a nothing from which something could not possibly follow.

What should be immediately apparent here however is that a presumption is not the same as a proof, though Kant uses both words in the context of declaring his proof, but more importantly, the presumption, being only a presumption and not a proof, makes its appeal to the very thing that Kant eschewed in metaphysics: the *magic wand of so-called common sense*, for it is only common sense, and nothing more, that leads to the presumption that something cannot follow from (our common-sensed notion of) nothing.

To overcome the obstacle of the first antinomy what is necessary is that we take up Kant's further advice and lend, as he asks of his *critical reader*, this antinomy our *chief attention*; and if we are to follow Kant's advice this demands that we resist the spell cast by a simple wave of the magic wand, and concentrate more intently on just what it is that we have in mind in this idea of nothing from which—as our intuitive insistence on pressing the question as far as possible directs us to conclude—all more complex states have followed into being.

Our common sense may insist on imposing on us its judgment that all that we have in this is the idea of nothing, but what more can be said is that if there is only this nothing, then what we have before us is a totally void state, and more importantly, a totally void state that we cannot impose any arbitrary limitation upon. It is therefore the idea of an absolute void or an absolute state the totality of which reaches infinitely beyond our finite powers of comprehension.

This judgment, while it may seem so simple and so self-evident as to be of no consequence is precisely to the contrary, a judgment of the utmost critical importance, and it is a critical judgment that was completely overlooked by Kant in his assessment of the conflicting proofs of the first antinomy.

The crucial importance of this judgment is that it follows through to the further judgment that this simplest of all possible states, as it can be called, cannot be formed by means of just one idea alone, such as that afforded by our common-sensed notion of nothing, but rather, it must and can only be formed by means of two necessary and related *a priori* ideas, or representations, as follows:

A: The external, objective idea of a totally void state that is unconditional, and absolute, or infinite; and this only and *necessarily* in relation to:

B: Our internal, subjective, finite idea of A.

Both of these pure ideas are related and necessary, and their necessity rests in the fact that it is impossible for us to form any idea of the one without the other. If A is given

¹⁶ Kant, *CPR*, 307 [A: 427–29; B: 455–57].

then B is given. If B is given then A is given. As soon as we think the one we think the other.

In his proof for the antithesis Kant speaks only of an empty time and no condition as to existence as opposed to non-existence, but as such an ultimately simple state reaches infinitely beyond our finite powers of comprehension it becomes impossible for us to judge that this simplest of possible states leaves us with only a nothing from which only nothing can follow.

The importance of this critical redefinition of nothing, as it may be called, is that it undermines the common-sensed judgment that the first antinomy is either a false or an insurmountable problem for reason. Further, this critical redefinition of nothing offers the one and only means of overcoming the dilemma of an infinite regress of causes, for it offers a logical, rational understanding of an ultimate original first state so simple in its form that it puts to rest our natural intuitive need to press the question of ultimate causation any further.

The most likely objection to such an admittedly simple analysis is that if we remove ourselves as the subjective determination of thought from this premise then we are left only with A, and not B. Though the removal of our subjective determination of thought from this premise cannot remove A. The absolute remains even in the absence of all else, and if A remains, then it can argued that there must continue in A, the inevitable and necessary grounds for the determination of B. Or to phrase this differently: the absolute provides by means of its constancy grounds for the inevitable realization of B as a finite determination of A; or yet again, the absolute, or the infinite provides in itself grounds for a finite instantiation of itself, hence B—however simple.

Thus, the definition of the two necessary, related *a priori* representations that provide a critical redefinition of nothing, and the premise of this argument, may be clarified even further, as:

A: The subjective or objective, unconditional and infinite or Absolute void that provides by reason of its constancy, grounds for:

B: The finite, subjective instantiation of A.

Despite all more complex states having been cancelled out of existence, these two necessary *a priori* representations provide the idea of a relation between the finite and the infinite, and in this, the only idea we can possibly have of an ultimate first beginning that does not lead to the otherwise inevitable question: From where did this supposed ultimate, original first state follow? Unlike every other possible, necessarily more complex premise that might be entertained, the answer is that there was no simpler, more original state that preceded the relation defined by these two necessary *a priori* representations.

This simplest of possible determinations therefore defines for us what can be called the simplest of all possible states, the simplest of all possible relations, and an ultimate first and most original beginning to all necessarily more complex states.

In this analysis of the first antinomy there is no other determination that can follow unless one is to prefer over the judgment apparent in this critical analysis the common-sensed dictionary definition of nothing—taking no account then of Kant's

insistence that with respect to metaphysics: *sound common sense, has no right to judge at all.*¹⁷ The former critical judgment, as will be seen as this argument proceeds, follows through to a synthesis of pure understanding whereas the latter common-sensed judgment resigns itself to the commonly held opinion that there is no possible solution to the cosmological problem here addressed—despite its solution here being given.

While there will no doubt be those who will resist this solution, the premise afforded by these A and B representations can be clarified further with the help of these additional judgments, to be qualified more fully in what follows:

1. The ultimate, original, and simplest of all possible states of being.
2. The ultimate beginning from which all more complex states of being followed into being.
3. The ultimate, original first state beyond which there remains no possible regression of all things (space, time, mass, and mind) toward an even simpler, more original state of being.
4. The ultimate, original first state from which all things (space, time, mass, and mind) advanced from their simplest, most undifferentiated, most unified of possible states, toward greater complexity, and ultimately, their most intense and most differentiated of possible states.

However, what further can be said given this simplest of possible beginnings?

In his analysis of Kant's first antinomy Hegel proposed a beginning that bears a strong similarity with what is here proposed, as follows:

... in any science a beginning is made by presupposing some idea—such idea being next analyzed, so that it is only the result of this analysis which affords the first definite concept of the science. Were we too to observe this procedure we should have no particular object before us, because the beginning, as being the beginning of thought, must be perfectly abstract and general, pure form quite without content, we should have nothing but the idea of a bare beginning as such. It remains to be seen what we possess in this idea.

So far, there is nothing: something is to become. The beginning is not pure nothing, but a nothing from which something is to proceed; so that being is already contained in the beginning. The beginning thus contains both being and nothing; it is the unity of being and nothing, or is not-being which is being, and being which is also not-being.¹⁸

As with Hegel's beginning the A and B representations suggest both a state not-being and being, regardless of however far removed the idea of such a state of being may seem from all that we might in our practical experience demand as a necessary determination of being. Thus there will no doubt remain for some the tendency to reject this beginning, though the fault here is not in how far reason here removes itself from the world of our practical experience, for given the problem this is not something that can be

¹⁷ *Prolegomena*, 8 [260].

¹⁸ *The Philosophy of Hegel*, ed. Carl J. Friedrich, (New York: Random House, Modern Library, 1954), 211. Hereafter: *Hegel*.

avoided, but rather, the fault rests in the false assumption that it remains beyond our powers of reason to form, even if only abstractly (for such is all that is possible), an adequate understanding of such a beginning and all that we might determine as having followed from such a beginning.

Hegel, in an attempt to determine what could follow from his analogous beginning, continues further:

... being and nothing are present in the beginning as distinct from one another; for the beginning points forward to something other; it is a not-being related to being as to an other; that which *is-beginning*, as yet is not: it is advancing toward being. The beginning therefore contains being as having this characteristic, that it flies from and transcends not-being, as its opposite.

And further, that which is-beginning, already is, and equally, as yet, is not. The opposites being and not-being are therefore in immediate union in it, in other words, it is the undifferentiated unity of the two.¹⁹

What has been said implies this further point, that that with which we must begin, cannot be something concrete, something containing a relation within itself. For such presupposes a mediation and a transition within itself from a first to an other, of which process the concrete, now reduced to simplicity, would be the result. But the beginning must not be a first *and* an other: in a thing which in itself is first *and* an other, progress has already advanced a step. That which constitutes the beginning (and that is, the very beginning itself) must therefore be taken, in its simple immediacy without content, as something not admitting analysis, hence as pure vacuity, as Being.

Here Hegel is seen grappling with the conflicting ideas that Kant warned invariably arise whenever we wrestle with the antinomies. The beginning Hegel proposes must somehow lead to that which is concrete, and the difficulty rests in trying to reason out how such a beginning can lead to something concrete, or to use Hegel's words, from *a first to an other*. Hegel however appears to distance himself from determining how such a movement could follow given his judgment that this simplest of beginnings contains no relation within itself—from which something else might follow—and despite involving himself in this contradiction, he continues:

If anyone, impatient of the consideration of the abstract beginning, should demand that we begin, not with the beginning, but directly with the matter itself, the answer is that the matter is just this empty being: it is in the course of the science that we are to discover what the matter is; the science must not therefore presuppose this as known.²⁰

... a beginning is not made with the concrete, but with the simple immediate whence the movement starts. Further, if a concrete thing is taken as the beginning, there is lacking the proof which is demanded by the complex of determinations contained in the concrete.²¹

¹⁹ Ibid.

²⁰ Ibid, 213.

²¹ Ibid, 216.

The difficulty is that Hegel's beginning seems to suggest nothing open for further deliberation, just as in the case of the A and B representations it might be assumed, for as Hegel has it this beginning is *something not admitting analysis*. Though if every other premise of a necessarily more complex nature leaves us with only another question in need of an answer, as Hegel notes, then the process whereby all things have proceeded into being from such an admittedly simple beginning must be determinable, and it can only be determinable by extending the analysis that we have already begun further.

Disregarding then Hegel's judgment that this beginning admits of no further analysis, what more can be said given this, as he calls it, *bare beginning as such*?

With respect to his beginning Hegel introduces the idea of a movement but the problem is that he does not then go on to determine how greater complexity has through such a movement followed from his beginning. He suggests that being has emerged from this beginning but Kant demands judgments that are both *a priori* and *necessary*. To simply state that: *being and nothing are present in the beginning as distinct from one another; for the beginning points forward to something other*;²² is not enough to satisfy Kant's critical demands. The premise must be connected (synthesized) to a conclusion that follows from it, *necessarily*. The reasoning must follow from the beginning to the conclusion without deviating from a logical, necessary, and straightforward path—as Kant suggests with his remark: *Metaphysics must be science, not only as a whole, but in all its parts; otherwise it is nothing at all*.²³

While this may seem to demand the impossible the difficulty rests not so much in the problem as in what the French philosopher Henri Bergson points out in his *Introduction to Metaphysics*, as follows:

IV. The inherent difficulties of metaphysics, the antinomies which it gives rise to, and the contradictions into which it falls, the division into antagonistic schools, and the irreducible opposition between systems are largely the result of our applying, to the disinterested knowledge of the real, processes which we generally employ for practical ends.

V. ...*The demonstrations which have been given of the relativity of our knowledge are therefore tainted with an original vice; they imply, like the dogmatism they attack, that all knowledge must necessarily start from concepts with fixed outlines, in order to clasp with them the reality which flows.*

VI. But the truth is that our intelligence can follow the opposite method. It can place itself within the mobile reality, and adopt its ceaselessly changing direction; in short, can grasp it by means of that intellectual sympathy which we call intuition. This is extremely difficult. The mind has to do violence to itself, has to reverse the direction of the operation by which it habitually thinks, has perpetually to revise, or rather to recast, all its categories. ... Only thus will a progressive philosophy be built up, freed from the disputes which arise between the various schools, and able to solve its problems naturally, because it will be released from the artificial expression in terms of which such problems are posited. *To philosophize, therefore, is to invert the habitual direction of the work of thought*.²⁴

²² Hegel, 211.

²³ *Prolegomena*, 120 [371–372].

²⁴ Indianapolis, New York: The Library of Liberal Arts, Bobbs-Merrill, Second Revised Edition, 1955, p. 50–2.

The habitual way of thinking that Bergson refers to is reflected not only in the presumption upon which Kant's proof of the antithesis rests, but in the difficulty one confronts when they carry their practical way of reasoning over into metaphysics and the problem of cause and effect—the fundamentally important problem for metaphysics that David Hume, in his *Treatise of Human Nature*, points out as:

We must distinctly and particularly conceive the connection between cause and effect, and be able to pronounce, from a simple view of the one, that it must be followed or preceded by the other. ... Now nothing is more evident, than that the human mind cannot form such an idea of two objects, as to conceive any connection between them, or comprehend distinctly that power or efficacy, by which they are united. Such a connection would amount to a demonstration, and would imply the absolute impossibility for the one object not to follow, or to be conceived not to follow upon the other.²⁵

And Kant remarking similarly:

But I cannot, by all my power of thinking, extract from the concept of a thing the concept of something else whose existence is necessarily connected with the former; for this I must call in experience. And though my understanding furnishes me *a priori* (yet only in reference to possible experience) with the concept of such a connection (that is causation), I cannot exhibit it, like the concepts of mathematics, by intuiting it *a priori*, and so show its possibility *a priori*.²⁶

Kant, in his defense of Hume against those who misjudged Hume's critical objections, remarks further:

The question was not whether the concept of cause was right, useful, and even indispensable for our knowledge of nature, for this Hume had never doubted; but whether that concept could be thought by reason *a priori*, and consequently whether it possessed an inner truth, independent of all experience, implying a perhaps more extended use not restricted merely to objects of experience. This was Hume's problem. It was solely a question concerning the *origin*, not concerning the *indispensable* need of using the concept.²⁷

The A and B representations provide the means of overcoming the impossibility here mentioned for they demonstrate an *a priori* causal relation in the idea of the effect B following as the inevitable determination of A (as its cause); and this is a necessary *a priori*

²⁵ Ed. L.A. Selby-Bigge (London England: Oxford University Press, 1967) 161–2. Hereafter: *Treatise*.

²⁶ *Prolegomena*, 119 [370–371].

²⁷ *Ibid.*, 6–7 [259]. Clarification here seemed appropriate for it has come to my attention from one prominent academic expert on Kant's critical philosophy that the concept of cause and effect points back to the old school metaphysics that Kant repudiated. Far from it, Kant did not shun the concept of cause and effect for he makes a point of defending Hume in reference to the concept. The professor in question merely shows in his rejection of any legitimate use of the concept of cause and effect both a serious misunderstanding of Kant and his distrust of speculative reason.

relation that cannot be demonstrated in any other manner for given any necessarily more complex state as an alternative, the possibility of demonstrating such a necessary *a priori* relation is eliminated, just as Hume and Kant understood.

Despite however seemingly inconsequential the *a priori* relation evident in these two pure A and B representations may seem, this relation also provides the means of overcoming the contradictory thoughts that beset Hegel.

The only possible solution, made possible by these two pure representations, evaded Hume and Kant, for to discover this relation they would have had to do what they admitted they could not do. They would have had to divorce themselves from the world of their immediate practical experience, and they would have had to—as Bergson pointed out—reverse their habitual ways of thinking.

To clarify further what has been advanced thus far:

The A representation presents to us the concept of an eternal, unconditional, absolute, or infinite, objective state, while the B representation presents to us the concept of a finite effect, despite however infinitesimal, and this as the inevitable and necessary determination of A.

The argument then is that B as an effect follows from its cause A, necessarily; and while this judgment may appear to provide no grounds for any further determination the problem remains that if we were to begin with any other premise there would arise the problem mentioned by Hegel: *if a concrete thing is taken as the beginning, there is lacking the proof which is demanded by the complex of determinations contained in the concrete.*

The A and B representations overcome this problem, and in having entered into this critical analysis to the end of overcoming this problem we have not by any means subverted Kant, but rather, we have taken Kant's advice in having lent to the first antinomy our *chief attention*. Thus, we have not employed pure reason to the end of any practical judgment, but rather, we have employed pure reason to the end of a critical judgment of metaphysics, and so are in line with Kant's further clarification with regard to metaphysics:

First, as concerns the sources of metaphysical knowledge, its very concept implies that they cannot be empirical. Its principles (including not only its maxims but its basic notions) must never be derived from experience. It must not be physical but metaphysical knowledge, namely, knowledge lying beyond experience. It can therefore have for its basis neither external experience, which is the source of physics proper, nor internal, which is the basis of empirical psychology. It is therefore *a priori* knowledge, coming from pure understanding and pure reason.²⁸

The difficulty with the premise proposed however is that it may prompt the most likely Kantian objection of all, that in divorcing ourselves from the world of experience, where it is assumed that we have the only possible grounds to defend our judgments, we entertain ourselves with a world of mere phantasms, for as Kant remarks: “I have myself given this my theory the name of transcendental idealism, but that cannot authorize anyone to confound it either with the empirical idealism of Descartes, ... or with the mystical and

²⁸ Ibid, 13 [265–266].

visionary idealism of Berkeley, against which and other similar phantasms our *Critique* contains the proper antidote.”²⁹

Kant’s criticism of Descartes and Berkeley stemmed from the failure of these philosophers to ground their judgments on *a priori* reasoning and a failure to connect their speculations to the world of our practical experience. Nevertheless, while the same criticism that Kant leveled against these philosophers might be thought to apply to speculative metaphysics in and of itself, Kant provides the means by which we may refute this most likely of objections by explaining the essential elements that must be present in such an exercise.

I have here, for the sake of clarifying this argument, inserted in brackets the A and B representations:

... the question is not what we must join in thought to the given concept, but what we actually think together with and in it, though obscurely; and so it appears that the predicate [B] belongs to this concept [A] necessarily indeed, yet not directly but indirectly by means of an intuition [our intuitive, *a priori* understanding of the relation between A and B] which must be present.³⁰

Kant further demands that anything advanced in the name of metaphysics display the form of a synthetic cognition *a priori*, and this by means of intuition and concepts:

The conclusion drawn ... then is that metaphysics is properly concerned with synthetical propositions *a priori*, and these alone constitute its end, for which it indeed requires various dissections of its concepts, namely, analytical judgments, but wherein the procedure is not different from that in every other kind of knowledge, in which we merely seek to render our concepts distinct by analysis. But the generation of *a priori* knowledge by intuition as well as by concepts, in fine, of synthetical propositions *a priori*, especially in philosophical knowledge, constitutes the essential subject of metaphysics.³¹

And concerning the manner whereby we may attach meaning to such pure, philosophical understanding, as it might be called:

²⁹ Ibid, 40–1 [292–4]. The more technical definition is *Transcendental Illusion*, this being the lethal caveat issued by those Kantians opposed to speculative reason. This objection, were it valid, would negate the possibility of not only metaphysics, but also theoretical physics, the real value of which exposes the mendacity of the objection, and also, undermines it. That Kant used this objection specifically against those systems that failed to prove, *a priori*, what they claimed to prove (Berkeley and Descartes) should be obvious, for otherwise how can those who oppose speculative reason account for those remarks where Kant shows that he leaves the door open to it? The fact that Kant issues the challenge quoted with the beginning of this argument is enough to show that he does not close the door to speculative reason, or the possibility of a positive solution to the cosmological problems. What lends those who have no use for such an exercise of pure reason to voice their objections is that Kant outlines his strict critical demands that impose limits on any possible positive and legitimate solution to his challenge. To qualify as a legitimate answer to this challenge a solution must be such that it accounts for the possibility of the world of our practical experience and helps us make rational sense of it.

³⁰ Ibid, 17 [269–72].

³¹ Ibid, 19 [273–74].

If knowledge is to have any objective reality, that is to say, if it is to refer to an object and receive by means of it any sense and meaning, the object must necessarily be given in some way or other. Without that all concepts are empty. We have thought in them, but we have not; by thus thinking, arrived at any knowledge. We have only played with representations. To give an object, if this is not meant again as mediate only, but if it means to represent something immediately in intuition, is nothing else but to refer the representation of the object to experience (real or possible). Even space and time, however pure these concepts may be of all that is empirical, and however certain it is that they are represented in the mind entirely *a priori*, would lack nevertheless all objective validity, all sense and meaning, if we could not show the necessity of their use with reference to all objects of experience.³²

The principles explained here derive their sense and meaning in their applicability to the world of experience, and by helping us to account for the possibility of this reality they adhere to this Kantian demand, and this is clarified further as follows:

As therefore experience, being an empirical synthesis, is in its possibility the only kind of knowledge that imparts reality to every other synthesis, this other synthesis [ex.: this *Causal Argument*], as knowledge *a priori*, possesses truth (agreement with its object) on this condition only, that it contains nothing beyond what is necessary for the synthetical unity of experience in general.

The highest principle of all synthetical judgments is therefore this, that every object is subject to the necessary conditions of a synthetical unity of the manifold of intuition in a possible experience.

Thus synthetical judgments *a priori* are possible, if we refer the formal conditions of intuition *a priori*, the synthesis of imagination, and the necessary unity of it in a transcendental apperception [again: this *Causal Argument*], to a possible knowledge in general, given in experience [the object being the world of our experience].³³

The correct interpretation of this excerpt is that the only valid *Kantian* criticism against pure reason is that if in its utilization we reach, as we are compelled to, beyond the world of our immediate experience, we fail to account for and make sense of the world of experience, or the reality we experience, then of course, we have not arrived at anything with sense or meaning; but if the understanding we arrive at can help us make sense of this reality then the objective validity of this understanding cannot be denied. Its practical use is then evident.

Hence, if this present argument can provide an *a priori* explanation that accounts for the origin of the four universal concepts of space, time, mass, and mind, and if it can show how these principles can help us make sense of these universals as they relate to the world as we experience it, or to this reality as we experience it, then it escapes this most likely of *Kantian* objections that might otherwise be raised against it.

Now the analysis advanced thus far can be extended even further along an *a priori*, necessary path of reasoning, as follows:

³² *CPR*, 131 [A: 153–56; B: 191–95].

³³ *Ibid*, 132 [A: 153–56; B: 191–95].

As regards the two pure, *a priori* representations proposed, A can be defined as a first cause necessitating B, regardless of however infinitesimal, and B can be defined further as a finite condition motivated toward the infinite state of A by means of its pure relation to A—this being its ultimate, objective cause.

The relation implied between the A and B representations therefore is not that of a static, but rather, it is that of a dynamic, mobile (to borrow the expression of Bergson) relation, and as B can only be thought of as a pure, immaterial representation in relation to A, then it can be defined even further as the effect of a pure, dynamic, mobile relation of mind; and as A remains an unconditional and constant state, then this finite determination of B implies in its relation to A, an internal, dynamic, mobile relation of mind drawn to move away from, or expand away from its initial finite frame of reference, toward the external, objective state of A as its ultimate cause.³⁴

The *Causal Principle* that can be gathered from this premise can therefore be put forth as: the Absolute provides the concept of an inevitable first cause to a finite representation of itself, B, and this being the effect of a pure, internal, dynamic, mobile relation of mind compelled to move toward the external state of A by virtue of its pure relation to A.

The important idea put forth with this beginning is that all things that have come into being have their beginning not with any concrete condition, but rather with *mind*, or as Hegel suggests in his remark: *We should have no particular object before us, because the beginning, as being the beginning of thought ...* this being analogous to the relation seen between the A and B representations and the idea of B following from A as a pure, dynamic, mobile relation of *mind*—and again reinforced by Hegel's more indelible remark: *The beginning therefore contains being as having this characteristic, that it flies from and transcends not-being, as its opposite.*

Should there in this arise any objection from those who interpret Kant's critical philosophy as providing grounds for nothing more than Kant's own regulative or moral philosophy, and claim that we are in this exercise in violation of Kant, we are not here straying far from Kant's own similar exercise of pure speculative reason seen in the following:

Now there is a gradual transition possible from empirical to pure consciousness, till the real of it vanishes completely and there remains a merely formal consciousness (*a priori*) of the manifold in space and time; and, therefore, a synthesis also is possible in the production of the quantity of a sensation, from its beginning, that is, from the pure intuition =0, onwards to any quantity of it.³⁵

³⁴ For the sake of further clarity this relation between the A and B representations can be explained as: The absolute, at the moment of its instantiation (self-realization) effects a finite representation of itself, however in this the absolute does not cease to be for it is infinite in extent and can never cease to be but in the sense of its bringing forth this finite representation of itself. Hence, the beginning is made with mind as opposed to matter (as in, but in contrast to the philosophy of Anaxagoras—c.500–428: See, *An Introduction to Greek Philosophy*, J.V. Luce (London: Thames and Hudson Ltd, 1962) 65.

³⁵ *CPR*, 139 [A: 164–66; B: 205–08].

That quantity which can be apprehended as unity only, and in which plurality can be represented by approximation only to negation =0, I call intensive quantity. Every reality therefore in a phenomenon has intensive quantity, that is, a degree. If this reality is considered as a cause (whether of sensation, or of any other reality in the phenomenon, for instance, of change) the degree of that reality as a cause we call a momentum, for instance the momentum of gravity³⁶

In the *Prolegomena* Kant puts forth this same reasoning as:

... there is between reality (sense-representation) and the zero, or total void of intuition in time, a difference which has a quantity. For ... between every degree of occupancy space and of totally void space, diminishing degrees can be conceived, in the same manner as between consciousness and total unconsciousness (psychological darkness) ever-diminishing degrees obtain. Hence there is no perception that can prove an absolute absence; for instance, no psychological darkness that cannot be considered as consciousness which is only outbalanced by a stronger consciousness.³⁷

While it might be argued that Kant is referring here only to sense experience, despite introducing the same idea with which this argument begins, of a *totally void space*, it can despite this be taken as a clue to the only possible path open for reason with regard to a positive solution of the first antinomy, and a refutation of the proof of the antithesis: *In an empty time, however, it is impossible that anything should take its beginning, because of such a time no part possesses any condition as to existence rather than non-existence.*³⁸ This proof clearly conflicts with Kant's judgment above: *there is no psychological darkness that cannot be considered as consciousness which is only outbalanced by a stronger consciousness.*

Where the proof of the antithesis rests on the presumption of this empty time, Kant's contrasting remark suggests a regression only to the point of an approximation to an absolute negation, and it is this same line of reasoning that is apparent in both the beginning proposed by Hegel, and the beginning proposed here with the A and B representations.

Although Hume failed to see the possibility of a solution such as the one given here to the problem of cause and effect he was unmistakably clear in his explanation of this problem, and for the sake of clarifying Hume as well as this argument, I have here included again in brackets the premise of this argument in the following quote from Hume: "A cause [A] is an object precedent and contiguous to another, and so united with it, that the idea of the one [A] determines the mind to form the idea of the other [B], and the impression of the one [A or B] to form a more lively idea of the other [B or A]."³⁹

Hume and Kant understood equally well what was in demand on the part of metaphysicians where the problem of defining a necessary relation between cause and

³⁶ Ibid, 140 [A: 166–69; B: 209–11].

³⁷ *Prolegomena*, 54 [306–07].

³⁸ *CPR*, 307 [A: 427–29; B: 455–57].

³⁹ *Treatise*, 170.

effect was concerned, and the one and only solution that is possible is given with this refutation of Kant's proof of the first antinomy's antithesis.

What can be gathered from this critical look at Kant's first antinomy is therefore that if the universe were to regress to its simplest possible state it would not then regress to a state of nothingness from which only nothing would follow, but rather, it would regress to a first beginning that would, despite its ultimate simplicity, allow for a movement toward not only greater complexity, but a movement following through to the complex state of reality that now exists.

In all of this there is the need to recognize that in the very idea of an absolute void we confront a natural impasse, for we cannot grasp the totality of that which reaches infinitely beyond the scope of our finite powers of comprehension, and it is for this reason that Hegel was able to contend that the idea of such a beginning cannot be divorced from the idea of being.

The A and B representations proposed can be said to provide for a logical deduction following this same line of reasoning, and the extended judgment that follows from this is that as A presents to us the idea of a constant state, then B, although finite in its extent, must by virtue of the constant motivating factor provided by A as its cause, inevitably, and necessarily obtain to, or return to A.

This judgment appears to be yet a further judgment following from, or grounded on the premise, but it can be said that this further judgment is implicit in all that can be gathered from the relation expressed between the A and B representations.

The question, given these two *a priori* representations is therefore: How are we to understand the movement or the causal process whereby the effect B inevitably and necessarily obtained to A?

THE PRINCIPLE OF DIVERGENCE AND INTENSIFICATION

The causal process by which the effect: a pure, finite, dynamic, mobile relation of mind (B), can be understood as obtaining to its cause: the objective state of the infinite, or the absolute (A)—within which this effect can be understood as being contained—can be understood as a series of interconnected stages, where each stage within this series underwent a phase of expansion that continued to a certain finite extent, but that then collapsed to the same point from which its initial expansion began, and that then followed through to a successive stage of expansion. Within this series each successive stage can be understood as having intensified over each preceding stage, all the way from the very beginning of this series up to the point of a final critical stage that brought about the inevitable end of this series.

Through such a causal process, or series, it becomes possible to account for the emergence of the four universals: space, time, mass, and mind, beginning from their simplest, most unified state, and leading from this simplest of beginnings through to their most complex and differentiated of possible states.

At the beginning of this series space, time, mass, and mind can be thought of as existing in a unified state wherein no differentiation of these universals had yet occurred. These universals can be understood as having emerged from this beginning in such a manner that space expanded out into a greater volume and over a longer duration of time from one stage to the next, while mass (the underlying substance from which the material universe is composed) accumulated and increased in its volume or density from one stage to the next, and mind (from which all conscious life has its ultimate origin) increased in its dynamic—though immaterial and pure or whole form—and intensity from one stage to the next.

There is but one manner only in which we can understand the possibility of such a dynamic series and this as follows:

The effect can only be thought of as a finite expanding sphere drawn toward the objective, external state of its ultimate, absolute cause, but it is impossible to think of this effect as simply continuing indefinitely, for with the concept of such a movement we have introduced the idea of two opposing forces, with the effect being thought of in terms of change, whereas its cause remains constant, and unchanging. The immediate problem is therefore that if the pure relation between this cause (A) and effect (B) suggests the possibility of such a movement, then the opposition between this cause and effect implied by this effect's movement, suggests the impossibility of such a movement.

Now while this immediate problem appears only to compound the difficulty of the problem with which we are faced, we will find rather that the idea of this movement, and the change it implies, presents the very means that will allow us to follow through to a complete understanding of the movement of this effect to the extent of its inevitable obtaining to the objective state of its absolute cause, and also, everything else that can be determined as following from the operation of such a dynamic series, or causal process.

First of all, the force, or momentum by which this effect was compelled toward its cause is implied in the initial state of relation between the A and B representations. The pure relation, in other words, between this cause and effect is given; but this relation would

have allowed for only a finite movement rather than an indefinite movement, and this can be understood in that the momentum implied by this relation would necessarily have dissipated proportionately to this effect's outward expansion, and inevitably to the point of its complete dissipation.

Further, once the force with which this effect was compelled toward the absolute state of its cause was entirely dissipated its outward expansion would, given the ensuing state of opposition to its cause, have been forced back to its originating point. However, as this originating point is to be understood as the point from which this effect began, and the original point to which it in turn collapsed, this point can then be understood as a state of equilibrium, or a unified state, or a state of continued relation between cause and effect.

Following the collapse of this effect back to this originating point the constant state of the absolute (A) as the motivating factor compelling the effect (B) would then have compelled a succeeding stage of expansion that would have followed as with the former stage, with a dissipation of this successive effect's outward momentum followed once again by its collapse back to this same originating point. However the critical difference between each successive stage in this series would have been that all the momentum of the preceding stage would have been concentrated upon this same originating point with the result being that each successive stage in this series would have exceeded the outward limit of expansion obtained by each preceding stage; and this principle of intensification would have continued to operate throughout the successive stages of this series, from its very beginning all the way through to an inevitable, and final, critical stage (this as yet to be explained).

Now the apparent conflict introduced into our thinking with the idea of this opposition between cause and effect can be understood by introducing into this conceptual picture, or schema as it can be called, a further factor that for the sake of simplicity, we can assign the designation X—so as to distinguish it as something separate to or apart from the A and B representations.

The two critical concepts that must be kept in mind if one hopes to grasp a full understanding of all that is implied by the operation of such a dynamic series is: the continuing state of relation between cause and effect, this being the necessary relation that provided for the possibility of this series, and second: the continuing divergence of the stages that comprised this series away from the initial state of pure relation that existed at the ultimate beginning of this series, and this to be explained by this additional concept X.

Hume clarifies the same problem of cause and effect in terms of the following rules:

1. The cause and effect must be contiguous in space and time.
2. The cause must be prior to the effect.
3. There must be a constant union between [sic] the cause and effect. It is [sic] chiefly this quality that constitutes the relation.
4. The same cause always produces the same effect, and the same effect never arises but from the same cause.⁴⁰

The principles of this causal argument adhere to all of Hume's rules, but here the demand is for one to form the conceptual picture of a certain sphere (volume) of expansion,

⁴⁰ *Treatise*, 173.

and with this the idea of this sphere possessing an outermost edge, or limit, and incorporating into this picture the concept of change implied in the quality, nature, or form of this overall volume in proportion to its expansion.

The idea is somewhat reflected here in the big bang model of the universe and the Hubble constant that informs us that the recessional velocity of galaxies increases in proportion to their distance, with the furthest galaxies possessing the greatest recessional velocities. To help understand this the example has been given of a row of dots equally spaced out on an elastic band, with the dots representing galaxies and the band representing space. If the band (space) is stretched out the distances between the dots (galaxies) at the outer edges of the band will be seen to be greater than the distances separating the dots near the centre of the band. They will appear to have moved greater distances from each other than the central dots over the same amount of time that it took to stretch out the band.

With this concept of an expanding sphere the idea of the dots can be replaced by the idea of a certain density, or mass, that we can designate simply as X, and while we can have no exact knowledge of the form or nature of X, we can know according to this same principle, the change implied by X.

If the effect requires that we account for both concepts: B and X, and in terms of a finite sphere of expansion, then the constant state of relation called for by Hume can be understood as being maintained by the outermost limit to this finite sphere of expansion. This outermost limit would mark the most intense rate of expansion to this sphere of expansion as a whole, and we can therefore equate this outermost limit with the effect of a pure, dynamic, mobile relation of mind=B, moving toward A.

By reason of its more intense rate of expansion it follows that this outermost force B, would have maintained a more unified, whole, or pure form, in relation to that force that diverged or trailed off from it, and this divergent force that we can designate as X (and that can also be understood as the derivative force generated by B in its movement toward A), would have continued to diverge, with each successive stage, further and further away from the pure form of this outermost force B.

This process would therefore have been cumulative, with an increasing, more substantial, differentiated, and more disproportionate mass of forces X, being generated from one stage to the next, and this in contrast to the pure, whole or undifferentiated form of this outermost force, B.

[There is yet another concept that could be introduced here, to avoid leaving it implicit only, namely: the concept of heat, and its increasing intensity with the collapse of these forces B and X to their originating point, and its decreasing intensity with the expansion of these forces away from this originating point.]

The increasing divergence between these two qualitatively distinguished forces however would not have continued without end.

Inevitably, the successive divergence that took place between these two opposed and differentiated forces must have led to the end of this series, and the end of this series can be explained by means of a third principle following logically and necessarily from this principle of divergence and intensification.

THE PRINCIPLE OF EQUIVALENCE

Acquiring an adequate grasp of this argument demands an ability to conceptualize the causal series it explains by means of the four *a priori* principles that are here expounded only abstractly, and the only manner this can be done is by employing all four of the universal concepts of space, time, mass, and mind. Kant's phrasing for the synthesis of pure understanding in demand is: *the synthesis of imagination, and the necessary unity of it in a transcendental apperception*, and his demand for objective validity is this *synthesis of pure understanding in relation: to a possible knowledge in general, given in experience*.

As this argument is given as an answer to the problem of universal causation then the object given in experience is nothing other than the universe itself, or the world of our experience in general, and achieving this synthesis depends first of all on one's ability to grasp the concept of a dynamic series of interconnected stages, and the increasing divergence throughout this series of the two qualitatively differentiated forces generated through its operation; namely: between the pure, undifferentiated force comprising the outermost sphere of each stage of expansion and that we can equate with B—as the pure, dynamic force of mind motivating this series from its ultimate beginning all the way through to its inevitable end—and those divergent forces, X, that with each successive stage in this series continued to trail off and diverge in their form further and further away from the pure form of this outermost force, B.

The beginning of this series would have been comprised of those initial stages with the least degree of intensity and divergence, decreasing in their intensity down to an ultimate initial stage most closely approximating a total void (as explained in the premise provided with the A and B representations). On the opposite extreme, the final stage of this series would have been that stage having achieved in its qualitative form the greatest possible degree of intensity and divergence away from the more unified, undifferentiated state that existed at the beginning of this series.

It is the premise of this causal argument that may prove the greatest difficulty in one's comprehending the possibility of such a dynamic series, but despite this difficulty it still remains possible to understand the causal process that must have followed (even if only imperfectly, given the limitations of our finite powers of comprehension), and to understand this process it is necessary to keep in mind this principle of divergence and intensification, with this dynamic, outermost force of expansion=B, that remained by reason of its greater intensity, or rate of expansion, pure or whole in its form from one stage to the next, and that thereby maintained a constant relation with its absolute cause=A, and this in contrast to those divergent forces=X, that continued to qualitatively distance themselves more and more from this pure outermost force=B. It also becomes possible to more completely comprehend this process by keeping in mind that this mass of intensifying and divergent forces=X, provided throughout this series the counterforce to the movement of this pure, outermost force=B, to the objective state of its cause=A.

It is these diverging forces=X that also enable us to comprehend all that is implied by the concept of change implicit in the movement of this effect=B toward the objective state of its cause=A.

This series however could not have continued to intensify indefinitely, or without end, for as with the individual stages that comprised this series, this series itself would have reached an inevitable end.

The end of this series can be understood as following in that the intensification of the forces generated through this series must have obtained to a final critical stage wherein this outermost force=B obtained to such a rate or velocity of expansion, and such a degree of separation from the more substantial form of those forces=X that diverged and trailed off from it, that inevitably it split off entirely from these opposing forces; and aside from this, there are two critical factors that would have distinguished this final critical stage from those stages that preceded it.

First, at this critical stage, this outermost force=B would have had to perfectly counterbalance those forces X, that had diverged from it, for otherwise it would not have been possible for these two opposing and counteracting forces to split off from each other.

Second, at this critical stage this outermost force=B, would no longer have been held back by the counterforce exerted by these opposing forces=X, and so it would have obtained to an absolute limit of intensity beyond which it could not intensify any further. Having split off entirely from these counteracting forces it would therefore have obtained to the objective state of its absolute cause=A, while those divergent forces=X, generated from its movement toward A, would have obtained to an absolute degree of divergence away from the pure and undivided form of this outermost force. Thus, the forces generated by this series as a whole, having obtained to an absolute limit beyond which they could not intensify or diverge any further, brought this series to its inevitable end.

Prior to this final critical stage the opposing forces generated by this series would have been interlocked within this series, and they would have continued to undergo further intensification, but with this final critical stage these forces split off as two separate yet perfectly balanced and qualitatively opposite forces; the one being a pure, unified, or undifferentiated force of mind=B, and the other a mass of more substantial, material, and disproportionate forces=X.

This principle of equivalence, following directly from the causal principle and the principle of divergence and intensification can be understood as the Formative Phase of the causal process that accounts for the origin of the four universals of space, time, mass, and mind. This formative phase in turn follows logically through to a fourth and concluding principle and what can be called the Creation Phase of this causal process, and this principle accounts for why this present stage of expansion has taken on the apparent intelligent order reflected in creation.

—THE CREATION PHASE—

PRINCIPLE OF PROGRESSIVE CREATION

It is not a complex, concrete, physical relation that presents the premise of this argument, but it is the concept of an ultimate original state that can only be understood by attributing to it the characteristic of mind (or as Hegel has it: *thought*), however simple.

It is this concept of mind then that presents the premise of this argument, however we cannot grasp an adequate understanding of what is here implied by any practical, ordinary concept of mind, for what is implied is the concept of a pure, dynamic, mobile relation of mind motivated in its outward movement toward the objective state of its absolute cause. Yet, there is nothing in the explanation of the causal process that defines this movement that suggests anything other than a purely mechanical or formative process. It is only with the end of this series, whereupon this pure, dynamic, mobile force of mind can be understood as obtaining to the objective state of its absolute cause, that it becomes possible to propose something other than simply a blind, mechanical, or formative process.

The premise of this argument begins with what can be called the simplest of all possible relations, and it is reason alone that can provide a logical, rational understanding of the causal process arising from such a simple beginning, and while a certain resistance may be expected toward this argument there is nothing in the principles that follow from this premise that conflict with the findings in that field most closely related to the same question. Rather, a strong agreement can be found here with the science of big bang cosmology, for this science also points back to a simple beginning though a beginning defined as a singular state of zero space-time with infinite density. The difference between the method of theoretical physicists and cosmologists as opposed to the method offered by pure reason is that while such a beginning leaves mathematical theorists confronting an insoluble paradox, this exercise of pure reason equates this beginning with the originating point to the final critical stage of the causal series that predated this beginning.

The movement that has been proposed is therefore that of a transition from an ultimate original state that most closely approximated a total void, to the infinite mass of the singularity, this infinite mass being the result of the intensification of the causal series having preceded this beginning to the point of its absolute intensification.

Thus, in the relation between the two qualitatively opposite forces generated through this series we have the means to account for the seemingly infinite complexity of order reflected in the universe, for the pure, dynamic force of mind generated through this process can be understood as obtaining with the final, critical stage of this preceding series to its greatest possible state as Absolute Mind, and the conclusion that follows is that this Absolute Mind must possess in its pure and undivided and infinite form, an all-encompassing conscious awareness and relation to this separate mass of more substantial, material forces=X, and must possess by virtue of its relation to this separate mass of forces an unlimited capacity to govern this entire mass of forces and direct them according to their design.

Hegel, while providing no explanation of a causal series that would follow, necessarily, from his analogous beginning, or that would fall in line with Kant's critical demands, nevertheless draws the same conclusion, as follows:

... we see that absolute spirit, which is found to be the concrete, last, and highest truth of all being, at the end of its evolution freely passes beyond itself and lapses into the shape of an immediate being: it resolves itself to the creation of a world which contains everything included in the evolution preceding that result; all of which, by reason of this inverted position, is changed, together with its beginning, into something dependent on the result, for the result is the principle. What is essential for the science is not so much that a pure immediate is the beginning, but that itself in its totality forms a cycle returning upon itself, wherein the first is also last, and the last first.⁴¹

Continuing further:

The expression of the absolute, the eternal, or God (and God has the most undisputed right that the beginning should be made with Him), or the contemplation or thought of these, may contain more than pure Being: if that is so, such content has yet to manifest itself to thinking (and not to presentational) knowledge; for, however rich this content, the first determination which emerges into knowledge is something simple, for it is only the simple which does not contain something more than pure beginning: the immediate alone is simple, for there only no transition has taken place from one to an other. If these richer forms of presentation, such as the Absolute, or God, express or contain anything beyond being, then this is, in the beginning, but an empty word and mere being; so that this simple vacancy without further meaning is, absolutely, the beginning of philosophy.⁴²

This absolute spirit, to borrow Hegel's phrasing, in its movement from its beginning to its end, maintains a unity—pure relation—with its Absolute cause, but with the complexity taken on at the end of this movement, this absolute spirit takes on the nature of Absolute Mind and Absolute Being.⁴³

Though the principles of this argument are grounded upon pure reason they provide a strictly philosophical, rational proof for that which is otherwise left to the uncertain grounds of conflicting theologies shrouded in mystery, and that appeal to what they would have us believe is our inescapable ignorance for their defense, and apart from which we have only the conjectures of mathematical theorists, which, while they may explain what conditions might have worked together to bring all things to their present state, fall short in that they do not explain either why or how these conditions themselves came to be.

⁴¹ Hegel, 208.

⁴² Ibid, 216–17.

⁴³ There is but one book where there is found any mention of something distinctly similar to what can be gathered from this argument and what can be found in Hegel—namely, the book of Revelation, final chapter, v. 13: *I am the Alpha and the Omega, the first and the last, the beginning and the end.* This strictly philosophical argument provides a logical, rational understanding for this verse.

Mathematical theorists are restricted to an empirical method and are thus open to the objection raised by Socrates against Anaxagoras's theory of mind or intelligence as the underlying principle that accounts for the order of the world.

While Anaxagoras reached an analogous conclusion to this argument the method he used was empirical, and the objection of Socrates points out the inherent flaw with empirical approaches to the same problem addressed in this argument. According to Plato, Socrates is said to have remarked concerning Anaxagoras's theory:

It was a wonderful hope, my friend, but it was quickly dashed. As I read on I discovered a man who made no use of his Intelligence and assigned to it no responsibility for the order of the world, but adduced reasons like air and ether and water and many other oddities. It seemed to me that he was just about as inconsistent as if someone were to say: "The reasons for everything that Socrates does is intelligence," and then, in trying to account for my several actions, said first that the reason why I am sitting here now is that my body is composed of bones and sinews, and that the bones are rigid and separated at the joints, but the sinews are capable of contraction and relaxation, and form an envelope for the bones with the help of the flesh and skin, the latter holding all together, and since the bones move freely in their joints, the sinews by relaxing and contracting enable me somehow to bend my limbs; and that is the reason for my sitting here in a bent position. Or again, if he tried to account in the same way for my conversing with you, adducing reasons such as sound and air and hearing and a thousand others, and never troubled to mention the real reason; which are that since Athens has thought it better to condemn me, therefore I for my part have thought it better to sit here, and ... submit to whatever penalty she orders ... But to call things like that reasons is too peculiar. If it were said that without such bones and sinews and all the rest of them I should not be able to do what I think is right, it would be true; but to say that it is because of them that I do what I am doing, and not through choice of what is best—although my actions are controlled by intelligence—would be a very lax and inaccurate form of expression. Fancy being unable to distinguish between the reason for a thing, and the condition without which the reason couldn't be operative! It is this latter, as it seems to me, that most people, groping in the dark, call a reason—attaching to it a name to which it has no right.⁴⁴

The flaw in Anaxagoras's reasoning was that of his confounding an explanation of those things that exist with why those things exist. In other words, Anaxagoras's explanation confounded the explanation of an effect with the explanation of a cause. Even if the particular things Anaxagoras pointed to could act as causes they fail as particular causes to account for all that exists. His explanation, in other words, fell short of an explanation of universal causation.

⁴⁴ Plato, *The Last Days of Socrates*, trans. Harold Tarrant (London: Penguin Classics, 1993) 161–2. Socrates is here speaking of the problem of universal causation. Anaxagoras attempted to show a causal connection *a posteriori*, but Socrates clarifies that all *a posteriori* approaches to the problem of universal causation—which is a metaphysical problem as opposed to a problem for empirically grounded sciences—invariably results in the fallacy of mistaking the explanation of an effect for an explanation of the effect's cause. The objections of Hume and Kant toward those philosophers following an empirical method amount to the very same objection leveled by Socrates against Anaxagoras.

The cause for all the particular things that make up our reality transcends this reality and so can only be reasoned to exist outside of all these particular things, and as Socrates understood, Anaxagoras made the mistake of thinking that an explanation of these particular things could suffice as an explanation of this transcendent cause.

Present conjectures by theoretical physicists that postulate such things as past universes that collided to produce our own universe are in the same category as Anaxagoras's theory, as well as the conjectures of various other Greek philosophers who confounded explanations of what exists with explanations as to why the world is as it is. This was apparent to not only Socrates, but to Kant, given his remark: "experience teaches us what exists and how it exists, but never that it must necessarily exist so and not otherwise. Experience therefore can never teach us the nature of things in themselves...."⁴⁵ and: "Experience ... therefore never gives us any really general truths."⁴⁶

Where all empirically grounded theories naturally fail is that they are limited in their explanatory scope.

It is for this same reason that present day apologists employing an empirical method fall into the same kind of fallacious reasoning pointed out by Socrates more than twenty-four centuries ago.

Where the question is that of universal causation our natural intuitive insistence on pressing the question as far as possible reveals the shortcomings of an empirical approach, and it also follows through to the critical judgment that an understanding that would truly amount to an understanding of the *why* (the understanding of an ultimate, universal cause) as opposed to simply the *what* (an understanding of the effects brought about by this cause) points to an understanding that could only reside in an Absolute Mind capable of grasping the whole of reality in all of its seemingly infinite complexity, and save for this argument as an abstract, philosophical exercise that can do no more than point to the existence of such a necessary, transcendent Being, the quest on the part of empiricists to reach out for a similar understanding is conducted in vain. The critical impasse of an infinite regress arising from the need to press the question as far as possible will always prevent those who confine themselves to a strict empirical approach from overstepping their bounds, and will always confirm the need for an understanding that can only be realized through an exercise of pure speculative reason.

Should there arise any objection to this philosophical proof such that the nature of an immaterial Being is an impossible idea, such an objection naturally rests on the materialist dogma that the only thing that exists is matter, and that a reduction of matter to such an underlying essence as pure, or absolute spirit is an impossible idea.⁴⁷ But this dogma conflicts with the incontrovertible fact that it cannot account for the existence of consciousness—that attests to the existence of something other than matter; and science itself, formerly thought to be the stronghold of those espousing the dogma that matter is all that exists, discloses a reduction of matter to ever simpler forms ever further distanced from that which can be more readily observed, so that we are told that if the nucleus of an atom

⁴⁵ *Prolegomena*, 42 [294].

⁴⁶ *CPR*, 1 [A: 1–2].

⁴⁷ It is commonplace for many, when reflecting on the vast extent of the universe, to assume the complete insignificance of our place within it, but the fact that there are conscious beings like ourselves who can reflect on the immenseness of the universe proves just the opposite: that in the absence of such beings as ourselves it is the universe that would be rendered completely insignificant.

were compared to the size of a baseball the orbitals of the electrons (whether point particles or energy waves) would extend four kilometers out from the nucleus, while the protons and neutrons making up the nucleus are themselves made up of even more elusive entities that both test and expose the explanatory powers of all empirical sciences, and so the natural question that follows is: “At what point does this reduction of matter to ever simpler forms abate?” Materialists must insist that if this reduction of matter to ever simpler forms abates it abates at that which still remains physical in its fundamental essence, to which the question follows: “But what is the fundamental form of this yet physical essence?”

When it comes to such problems as whether this reduction ends at a particle that is no longer reducible, or whether that particle can properly be defined as a particle, or something else, or what led inanimate matter to become animate matter, or what gave rise to consciousness, it invariably ends in one deciding upon those terms and conditions that best reflect one’s individual preference. For materialists it becomes a matter of deciding upon those terms and conditions that best reflect their position that matter is all that exists, and for those who hold that there is more to reality than simply that which is most readily observed it becomes an admission that the fundamental, underlying substance of reality can best be defined as pure and absolute spirit, to which any objections on the grounds of a materialist dogma afforded by a science that itself strays ever further away from a strict materialist dogma, are completely undermined.

But what then is to be said given the scientific evidence that provides, as many argue, the true account of human origins through an evolutionary process driven by natural selection, and as proven given a fossil and a DNA record that extends billions of years into the past?

Here the same fallacy pointed out by Socrates appears in its most striking form, and the concept that points out the failure evident here is again the concept of cause and effect and the critical impasse all empirically grounded sciences confront with this concept, namely: the problem of an infinite regress of causes, for even granting all the scientific knowledge upon which evolutionary theory rests, all of this knowledge, regardless of its factual or theoretical nature falls short of satisfying the critical demands imposed by the depth of the question.

The understanding in demand is not merely an understanding of what processes operated to bring things to their present state, but it is an understanding of the cause underlying this process as a whole, and this demands a demonstrable proof in the dynamic mechanism of change that materialists believe, and must believe, began this process from its very inception.

The only possible means by which such a problem can be resolved is through an exercise of speculative reason for no other approach can give a rational account of the cause that rests behind this entire chain of effects that has occurred.

It is the very insistence on holding to a strict empirical approach that results in the hardened skepticism expressed by those who resist even the suggestion that there can be such a thing as a rational solution to such a problem, for in the expectation of an empirical solution that holds out no prospect whatsoever of a solution there is no possible escape from this skepticism. This argument however offers the means for an escape from this skepticism for it follows through to the judgment that the world in which we exist does not attest to the existence of some mindless, physical mechanism of change (an impossible and self-contradictory idea), but in its apparent infinite complexity it attests to the continuing

drive of the Supreme Author of this creation to bring all things to an ever greater state of complexity and being.

Given then this, as it may be called, Principle of Progressive Creation, a strictly rational, philosophical proof is provided for the existence of an Absolute Mind in which the whole of creation, from its most minute features to its greatest and most complex features are understood in their entirety, and as they exist both in themselves and as they exist in relation to the whole of creation; and to a Supreme Mind that has in its unbounded creative capacity given life to a vast and diverse community of other beings who can share to some finite extent, this same capacity.

EMPIRICAL AGREEMENT AND OTHER CONSIDERATIONS

§ Though common sense can be of no service to the end of one's grasping an adequate understanding of this *Causal Argument*, and has no place as Kant says in metaphysics, it can yet serve some practical use in judging the rational grounds for this argument for there is no doubt that the evidence upon which evolutionary theory rests points to a movement from the simplest organisms to the more complex, nor can it be denied that this emergence from simplicity to complexity is similarly seen in cosmology in the emergence of this present reality from the original condition of a singularity. So it could be said that common sense itself should lead us to the same conclusion toward which this empirical evidence points and that is toward the premise of this argument. One cannot maintain that pushing this movement having taken place back to this premise and this simplest of possible beginnings defies common sense any more than one can deny that everything within our personal experience, and everything that has been revealed to us through these other sciences, points back toward this same beginning. Should we resist this logical deduction we would find ourselves at odds not only with all that science can tell us, but also with what we know from our own experience, having ourselves followed into being from a preceding state of non-being.

§ The order that has arisen in the universe, with the formation of galaxies, stars, and our own planet with its seemingly infinite complexity of life forms and our own conscious beings, is according to this argument, necessitated. Aside from this argument there is nothing left for our consideration except an assortment of conjectures that are appealed to as answers as to how the second law of thermodynamics, that states that entropy must increase over time, has been so completely and obviously defied. This law is fundamental to physics. It states that complexity and order do not emerge over time but they diminish over time. As heat dissipates over time its capacity to do work also dissipates over time. But this is not what has happened over the course of the universe's history. The increasing complexity and order that has arisen in the universe in defiance of this fundamental law of physics leads theorists to conjectures, such as the one that states that a universe as complex as ours appears as a quantum vacuum fluctuation (emerging into existence out of nothing) once every $10^{10^{80}}$ years.⁴⁸ This can be called an *appeal-to-fantastically-improbable-numbers-to-beat-the-odds-conjecture*. And despite this conjecture's utter banality it has been entertained seriously by various theoretical physicists ever since its inception in the middle half of the last century. Given the infinite void that preceded the universe there is room to postulate the possibility of an infinite number of quantum vacuum fluctuations and the emergence out of nothing of any kind of universe however complex, or for this matter, however grotesque or absurd. Our own universe is just one of an infinite number of different possible universes with an infinite number of different possible arrangements.

But the obvious problem with this conjecture is that all it amounts to saying is that the universe happened—that the emergence of a complex universe such as ours out of nothing is possible even given the laws of physics that would otherwise discount this

⁴⁸ See *In Search of the Big Bang*, John Gribbin (New York: Bantam Books, 1986), 370.

possibility (and as this argument also has it, though grounding this conclusion on critical reasoning, rather than a disingenuous defiance of the laws of physics). The conjecture however does not say anything more than this and this amounts to saying that the effect explains itself as its own cause, and so are back to the same kind of fallacious reasoning that Socrates saw in Anaxagoras.

While an explanation of cause and effect must be part of an explanation of universal causation a cause and effect are not the same thing, and a cause and effect cannot be confounded in such a manner that an explanation of the one is made out to be the explanation of the other.

§ Astronomers have discovered that the universe is not static as some had thought, but that it is expanding, just as the Belgian astronomer/physicist Georges Lemaître (1894–1966) had predicted as early as 1927 in his paper: *A homogenous Universe of constant mass and growing radius accounting for the radial velocity of extragalactic nebulae*.

Through the observation of Type 1A supernova with the Hubble space telescope in the 1990's it has been confirmed that the rate of this expansion is not slowing down, as had previously been supposed, but it is accelerating.

According to this argument the force compelling this expansion would have had an increasing influence over this rate of expansion as it continued and it would have had less of an influence in the past. Where the qualitatively differentiated forces that it accounts for separated the counterforce to this expansion would not have been able to either slow down or reverse this expansion, nor would it have been able to prevent this rate of expansion from obtaining to an absolute limit.

This also leads to the possible conclusion that the Hubble constant (a measurement of the rate of expansion over distance) would have had a proportionately lower value in the past.

§ There is one significant fact that is seldom if ever taken into account in the many science fiction scenarios conjuring up imaginary worlds of the future, and seldom if ever taken into account in the many works dedicated to the end of popularizing a supposedly more scientific understanding of the universe.

When astronomers look through their telescopes they look not at what exists in the present but they look into the past. The further they look into space the further back into the past they look. The radiation that we now see as a particular star or galaxy may have been traveling through space for millions of years, and in the case of the most distant objects, billions of years, so we cannot know whether or not the objects that emitted this radiation now being observed still exist. All we can know is that the objects that did emit the radiation that is now being observed did exist in the past, but considering the wide sweeping changes that have occurred on the Earth during only the last few hundred thousand years, it is reasonable to assume that changes as equally vast must have swept throughout the entire universe, and the universe as it exists at present may be vastly different from the universe that astronomers observe through their telescopes.

§ The expansion of the universe is thought to have begun with a near perfect balance between the force of expansion and the counterforce to expansion—gravity. Had the equivalence between these two opposite forces deviated even slightly from a certain critical

factor just one second after the big bang (it could not have deviated by more than a factor of 1 part in 10^{10}) the universe would either have collapsed before any stars or galaxies could form, or the densities inside stars would not have been sufficient to produce thermonuclear reactions, and the universe would have turned out cold and lifeless.⁴⁹

This balance is necessitated by the third principle of this argument—the principle of equivalence.

The expansion of the universe is also thought to have been homogenous, with a uniform degree of heat spreading throughout all regions of space in the early stages of the universe's expansion, and while the inflationary model of the big bang helps to account for this uniform distribution of heat this same result is necessitated by this same principle of equivalence.⁵⁰

§ Though there is some strong agreement with this argument and big bang cosmology there appears to be a conundrum in cosmology that finds a possible answer in this argument. This conundrum is related to the age of the universe and the most distant objects observed in the *extreme deep field*, by the Hubble space telescope. The galaxy known as UDFj-39546284 is estimated to be 13.2 billion light years distant, reflecting where this galaxy was when the universe was only half a billion years old. The problem though is that if the universe in its early history was confined to a much smaller volume of space, then how did this object, and others similarly distant, escape this more confined space that existed 13+ billion years ago to assume those positions in space that reflect where they were this long ago? They could not have been both inside this more confined volume of space and thirteen billion light years outside of it at the same time.

This problem is overcome by this argument for this argument necessitates that space expanded out to an absolute distance at the instant of the big bang. That is, each of the stages representing the causal series that preceded the present stage of expansion, can be thought of as having elapsed instantly at the beginning of time. For instance, using increments of time to represent the duration of each of these previous stages, if it took N (N for number) for the first stage to elapse and this stage then collapsed to its originating point (the singularity), the next stage in this series would have eclipsed the duration of the

⁴⁹ See: Sir Fred Hoyle, *Home is Where the Wind Blows* (Mill Valley, Ca.: University Science Books, 1994). Hoyle mentions there is no accounting for this balance from the big-bang supporters, except with the implication of *divine adjustment*, pg. 402; while Stephen Hawking, in *A Brief History of Time* (New York: Bantam, 1988), mentions something similar (pg. 12). But scientists have sound reasons for objecting to any such notions, as Hoyle explains, pg. 257, citing the avoidance of what would amount to *the greatest possible scientific heresy*. Scientists, of course, have good reasons to refrain from delving into matters that lie outside the normal bounds of science. But while scientists are restricted by their method speculative philosophers need not admit to any such restrictions, despite their being among philosophers a great many who would attempt to impose upon philosophy the same restrictions that should only apply to science.

The estimate 10^{10} is from James Gardner, *The Intelligent Universe* (Franklin Lakes, NJ: New Page Books, The Career Press, 2007), 242 (quoting Stephen Hawking).

⁵⁰ In 1994 the US COBE (cosmic background explorer) satellite measured the left over/residual heat of the cosmic big bang to a temperature that was similar in all directions to one part in 1,000,000. The inflationary model of the early universe has the drawback that it results in a multitude of parallel universes. It is left for astrophysicists to determine whether a series such as proposed by this argument, predating the big bang and leading to this beginning, overcomes this problem. The absolute force that compelled the expansion, with the infinite momentum having been generated by this preceding series, would have uniformly expanded matter with space, and the (infinite) heat generated by this absolute force would account for this uniformity.

preceding stage instantly, lengthening its duration to N^2 seconds. The collapse of this stage in turn would have resulted in all the momentum of this stage being concentrated at this same originating point, and the third stage would have eclipsed the duration of the preceding two stages instantly, lengthening its duration to N^4 seconds. With this same principle operating throughout this series, the final critical stage where N obtained to an absolute intensity, would have eclipsed the limit obtained by the preceding stage instantly, and this would account for how the most distant objects observed reflect positions in space that they occupied over 13 billion years ago.

While those who might take exception to this argument by asserting that it does not offer a science in the proper sense, the answer to this objection is that it does not purport to offer a science in the proper sense, but rather, in the sense of metaphysics as a science as defined by Immanuel Kant, and as such it provides a positive solution to Kant's first antinomy. It provides in this the one and only possible philosophical account for the existence of the four universals of space, time, mass, and the key concept of mind that lies outside the scope of empirically grounded sciences, and without which any such complete explanation is impossible.

The most important conclusion that follows from this argument, not as the result of arbitrary choice, but on the grounds of strict *a priori* necessity, is that there exists a Supreme Being with the characteristics of omniscience and omnipotence, and it is to the workings of this Absolute Being and Absolute Mind that we can attribute the intelligent order reflected in the universe; and while this follows through to certain other questions of a more fundamentally important and practical nature, these questions lie outside the scope of this argument, and must be left to a separate work.

APPENDIX I

Causal Argument for the Existence of a Supreme Being, In Abbreviated Form

[This appendix provides an alternative version of the *Causal Argument* that some readers might find easier to follow. To this same end an abstract diagram of the argument is also given with Appendix II.]

There is a pure, objectively valid understanding that is not arbitrarily determined that is within the potential grasp of anyone wanting to understand the answer to the question posed by the German mathematician/philosopher Gottfried Wilhelm Leibniz: “Why is there something, rather than nothing?” It is a pure understanding that follows not simply as a possibility, but it follows necessarily, and so is distinguishable from *a posteriori* understanding, grounded on experience, that does not follow necessarily.

For instance, it does not follow that simply because one throws a brick at a window that the window will break, even though it has been found that it is usually the case that the window breaks. If however a straight line is drawn anywhere on the surface of a sphere it is not only probably true but it is necessarily true that if we extend the line indefinitely it will return to its beginning. The former is an *a posteriori* understanding that does not follow necessarily, the latter an *a priori* understanding that does follow necessarily, and it is an example of this latter kind of understanding that characterizes the necessary, as opposed to the merely probable understanding that can be realized as the one and only rational, strictly philosophical, solution to the question of Leibniz.

This understanding does not then begin with an empirical condition that would lead to the question: “From where did this preliminary condition originate?” Such a premise would leave us with a question in place of a question, and it is not the intention here to answer a question with a question, but the intention here is to provide a solution to the question.

Accordingly, this solution follows a straightforward path of reasoning from its premise all the way through to its conclusion. The reader is therefore not faced with multiple conflicting paths from which to choose, but one path only; and as the problem here is that of *universal* causation, and not *particular* causation, the first step that one must take on the path to the realization of this solution to the problem is to trust one’s own natural, inescapable need to question the origin of any condition that might be proposed as an ultimate premise, or an ultimate beginning to all that we can judge as having proceeded into being; and here we can be informed by our own experience, for as concerns the idea of an ultimate beginning, we can say for a certainty that there is nothing within the whole realm of our possible experience that we can judge to be something that has not itself followed into being from a previous state of non-being.

This natural insistence on questioning all that might be offered in the way of an ultimate beginning to our understanding points out why a solution to this question will forever remain beyond the scope of all empirically grounded sciences, for all empirically

grounded sciences are compelled to begin with conditions that are open to this intuitive insistence on pressing the question as far as possible.

The other limitation imposed on all empirical sciences is that they cannot account for the emergence out of nothingness of conscious beings like ourselves, though this fact is the most crucial and obvious fact of all that must be accounted for in the context of a legitimate solution to the question.

This critical limitation confronts not only scientists confined to an empirical method, but it also confronts those theologians who insist on positing as their ultimate premise the existence of an Eternal Being, but with this premise they have provided not a solution to the question, but rather, they have provided only another question in response to the question, namely: how do we account for the existence of such an Eternal Being.

The criticism against all those who adhere to positing the existence of a complex beginning as their premise, regardless of its material or its immaterial nature, is that they fail to trust their own natural, intuitive, inescapable need to press the question of ultimate causation as far as possible.

This intuitive need to press the question to this extent leads to only one possible judgment and this is that we have no alternative except to adopt the idea of nothing as our only possible beginning.

The benefit here is that with this beginning we are no longer in conflict with our intuitive insistence on pressing the question as far as possible. The other advantage is that the problem of an infinite regress of causes is overcome for all things cannot be pushed back beyond this nothingness that remains after all necessarily more complex conditions have been removed from existence.

Moreover, this beginning bears some relation to the beginning pointed to by cosmologists, who estimate that the universe can be pushed back to what they call the Planck time (10^{-43} seconds), and prior to this, a singularity, defined as zero space-time with, paradoxically, infinite density.

But what then are we to say of this concept of nothing that forms the one and only premise that satisfies our intuitive need to press the question as far as possible?

To begin with, it is not the difficulty of the question that poses the only problem that confronts us. Rather, it will be the natural tendency to appeal to one's common sense that will prove the greatest obstacle on the path to one's realizing the solution that here follows. We cannot, for instance, appeal to a common household dictionary for an understanding of this most logical premise that presents itself to us. What we must do, and have no alternative but to do, is reflect on just what it is that we have in mind with this concept that our common sense would define simply as nothing. Is what we have in mind only this total void, or this nothing from which only nothing can follow?

The answer is not as easily determined as it may first seem for we must admit that such a simple concept defies our imposing upon it any arbitrary limitation. Rather, it is the concept of a state that reaches infinitely beyond whatever finite idea we can form of it. We cannot imagine a circle, for instance, and say that the idea of this nothing that we possess is contained only within the imaginary circumference of this circle. The idea of this circumference would be a condition arbitrarily imposed by us on this concept, but this cannot be allowed for with this simplest of beginnings there are no conditions that we can arbitrarily impose upon it. If there is only this nothing then there is no imaginary circle and there is no circumference within which we can confine the idea of this nothing that we

have. There is only this infinite state of nothingness, the totality of which cannot be grasped by any finite idea that we can form of it.

This then is the first and most crucial and critical fact that must be admitted, for this realization follows through to the immediate judgment that this simplest of possible beginnings leaves us with a concept of that which is absolutely unconditioned. Thus, in the analysis of this simplest of possible beginnings we are led to admit not just our common-sensed idea of nothing, but rather, we are led to admit two distinct, yet necessarily related *a priori* ideas: the one being this thought of an external state, or absolute void that reaches infinitely beyond our finite powers of comprehension, and the other being this internal, finite idea that we possess of this external, absolute state that reaches infinitely beyond our finite powers of comprehension.

We therefore have in this idea of an ultimate first beginning not simply one Idea, but we have two purely related and necessary ideas that introduce us to the concept of a relation of the finite to the infinite—of the *subjective* and the *finite* to the *objective* and the *infinite*. This critical judgment thus compels us to remove from our consideration the common-sensed dictionary definition of nothing, and so it is this critical redefinition of nothing provided by these two necessarily related *a priori* ideas that form the premise to the following argument.

But what then is possible given this simplest of possible beginnings?

The only logical possibility that follows given the absence of all necessarily more complex states is that the Absolute being that which persists, must by virtue of this persistence, inevitably effect a finite representation of itself through its self-instantiation. Thus, the infinite or the Absolute ceases to be simply that which persists as the Absolute or the infinite, but it becomes in this self-instantiation that which is also finite. This critical judgment can be expressed alternatively as: The Absolute, by virtue of its being that which persists, even in the absence of all else, acts in its inward reflection as the Ultimate Cause to the effect of a finite determination of itself—however simple.

We therefore have in this idea of an ultimate beginning, a beginning with not some necessarily more complex state that would leave the question as to its cause, but a beginning in the idea of this pure relation of the finite to the infinite, and moreover this beginning defines then not a static, but rather, a dynamic relation in which this finite manifestation of the Absolute must, by reason of the constant state of its Absolute First Cause, be compelled to return back to the state of its Absolute Cause.

There is here in other words, a pure, *a priori* relation of cause and effect, and it is this causal relation that provides the conceptual framework for the understanding of the causal process explained in what follows.

There are several judgments that arise from what has thus far been determined, these being that in this relation of the finite to the infinite we have begun as stated not with a complex condition, but we have begun with the idea of thought, or of mind; however, not with any such idea of mind as our practical experience might demand as a necessary determination of mind, but rather, what we have in this is the idea of an eternal, Absolute Mind in its simplest possible and most original state of Being.

With this beginning what is proposed is then a certain change brought about by this dynamic, mobile relation of mind through its movement back toward the state of its infinite, Absolute Cause, but how are we to rationally account for such a movement?

We can think of the causal process that followed from this beginning as a complete series of interconnected stages, moving from an intensity approximating nothing at all, to an absolute degree of intensity—this absolute degree of intensity being reflected in the singular condition of infinite density that preceded the expansion that followed from this beginning 13.8 billion years ago.

The idea of expansion is contained in the premise proposed, for the only manner in which the movement suggested can be understood is through the concept of a certain finite sphere expanding outwardly toward the Absolute state in which this finite sphere of expansion must be thought of as being contained.

The immediate difficulty here is that the idea of change presented here introduces the idea of a certain opposition, or conflict in the idea of the Absolute as an infinite, constant or unchanging state, yet an infinite, constant and unchanging state in a certain dynamic relation with an effect that can only be thought of in terms of a movement in opposition to this Absolute constant state.

This immediate difficulty however is answered in that while this movement appears implicit in the relation of the finite to the infinite, the opposition also implied by this movement takes place as only a finite determination. It is, that is to say, impossible to think of this effect as a certain sphere of expansion continuing without end. The idea of this opposition between cause and effects leads to the judgment that this effect could only have followed to some finite extent.

To explain further: We have in the elimination of complexity with this beginning only to concentrate our attention on the few details presented which if overlooked by reason of their simplicity, will lead us nowhere, but which if analyzed will allow us to follow through to a complete understanding of all that can be determined as having followed from such an admittedly simple beginning.

What do we have then in the idea of this effect, as proposed?

There are three essential factors that need to be considered here.

First, this finite sphere, or effect, must be thought of as being contained, or encompassed within this Absolute state that always remains itself the idea of an infinite, objective state, and hence, our idea of this effect as a finite sphere of expansion must be thought of as moving outward, toward this objective, Absolute state. Second: this finite sphere must be thought of as having an outer limit, or circumference. And third: this finite sphere must be thought of as having an inner volume contained within the boundary marked by this outer limit, or circumference.

These three key concepts we can, to simply this argument, designate as A, for the unconditional, and constant Absolute state external to the effect; B, for the circumference or outermost limit to the effect of this finite sphere of expansion, and X, for the inner volume of this sphere undergoing expansion.

There is then here the relation of not only B but also, of X to A.

B and X define the overall effect.

A defines the Cause.

X can also be thought of in the following as the derivative, and opposite force or form generated by the movement of B toward A.

Now this movement of B toward A can be further explained in that while the initial force or momentum allowing for this movement is implied in the idea of the pure state of

relation between the finite and the infinite (between B and A), this initial force or momentum must have dissipated in proportion to this effect's expansive movement.

This then leads to a further judgment, for once the initial force or momentum of this effect was fully dissipated this expansive movement would have ceased, and what must then have followed is that this effect must have collapsed back to the original point from which its preceding expansion began.

This original point can also be thought of as a state of equilibrium, or a unified state that had within it the potential and the momentum for a successive stage of expansion. Being a unified state it can, in other words, be thought of as a continued state of relation between cause and effect.

This continued state of relation between cause and effect, brought about by the collapse of this previous expansive movement, would therefore have resulted in a successive stage of expansion following from this same originating point; however, due to the unified force concentrated on this same originating point, with B and X collapsing to this same beginning, this concentrated momentum would have compelled a successive stage of expansion that would have eclipsed the limit of expansion obtained by the previous stage.

This successive stage would, as with the first, have only followed out to a certain finite extent, and following the complete dissipation of its outward force or momentum it as well would have collapsed back to the same originating point.

What then followed from this same originating point was a complete series of stages, wherein each stage underwent the same process of expansion and collapse, but wherein each stage exceeded the intensity of the previous stage.

Also, the greater concentration or momentum exerted on the originating point for each of these successive stages would have led each stage to undergo a greater or accelerated rate of expansion than each preceding stage. Each successive stage would therefore have instantly eclipsed the limit of expansion achieved by each preceding stage.

For instance, using increments of time for each stage, if the duration of the first stage in this series took N (for number) seconds, and this stage then collapsed back to zero, then the second stage in this series would have eclipsed this duration instantly with its expansive duration increasing to N^2 seconds. Following the collapse of this second stage the third stage, compelled by the accumulated momentum of the previous two stages, would have eclipsed the limit reached by the preceding stage instantly, with its total expansive duration increasing to N^4 seconds, and this would have followed through to the fourth stage obtaining to N^8 seconds, the fifth stage to N^{16} seconds, and so on throughout this series all the way through to this series obtaining to an inevitable, absolute intensity.

There is another factor that we can take into account to assist in our understanding the possibility of such a dynamic series, in that the outermost limit to each of these stages of expansion would have had a greater rate of expansion than that sphere of space internal to this outermost limit. B, that is, would have had a greater rate of expansion in relation to X—as that force trailing off from this outermost limit and confined to this inner volume of space undergoing expansion.

We can therefore understand B, by reason of this greater rate of expansion, as maintaining a pure, undifferentiated form, whereas that force that trailed off from this outermost limit must have taken on a more divergent and disproportionate form from one stage to the next. The simple but critical concept to keep in mind is therefore that

divergence between B and X would have continued to intensity from one stage to the next throughout this series.

This derivative and opposing force reflected in X can be understood then as the counterforce generated by B in its movement to A, and as that counterforce that brought about the collapse of each stage within this series following the complete dissipation of each stage's expansive force or momentum.

The idea of this divergence between B as the force compelling this series, and this derivative force caused by its expansive movement toward the Absolute state of its cause, leads to a further critical judgment, in this is that it is impossible to think of this series as simply continuing indefinitely. Rather, the divergence between this pure, dynamic force at the outermost limit to each stage of expansion, and this divergent mass of forces that trailed off from it, must have reached a stage wherein these two divergent forces inevitably separated from each other.

This then follows through to the following additional judgments:

First, the stage where these two qualitatively differentiated forces, B and X, separated from each other would have marked a stage wherein this pure outermost force was perfectly balanced with the whole of these contrasting, divergent forces, for otherwise these two qualitatively differentiated and opposed forces could not have separated from each other.

Second, prior to this final critical stage these two qualitatively differentiated and opposed forces, being interlocked within this series, would have continued to undergo further divergence and intensification.

Third, at this critical stage these two opposing forces obtained to an Absolute limit beyond which they could not undergo any further divergence or intensification, and this series was therefore brought to an end.

Fourth, the stage that marked the end of this series also marked the beginning that big bang cosmology points back to.

The series that preceded this beginning brought about a state wherein the two qualitatively differentiated and opposed, but perfectly counterbalanced forces that emerged from this series stood in opposite but equal relation to each other: the one being at the one extreme, a pure, dynamic, undifferentiated, immaterial force of mind, and the other, at the opposite extreme, a separate mass of divergent, material forces—these being the derivative of this pure, dynamic, immaterial force of mind through its movement back toward the Absolute state of its cause.

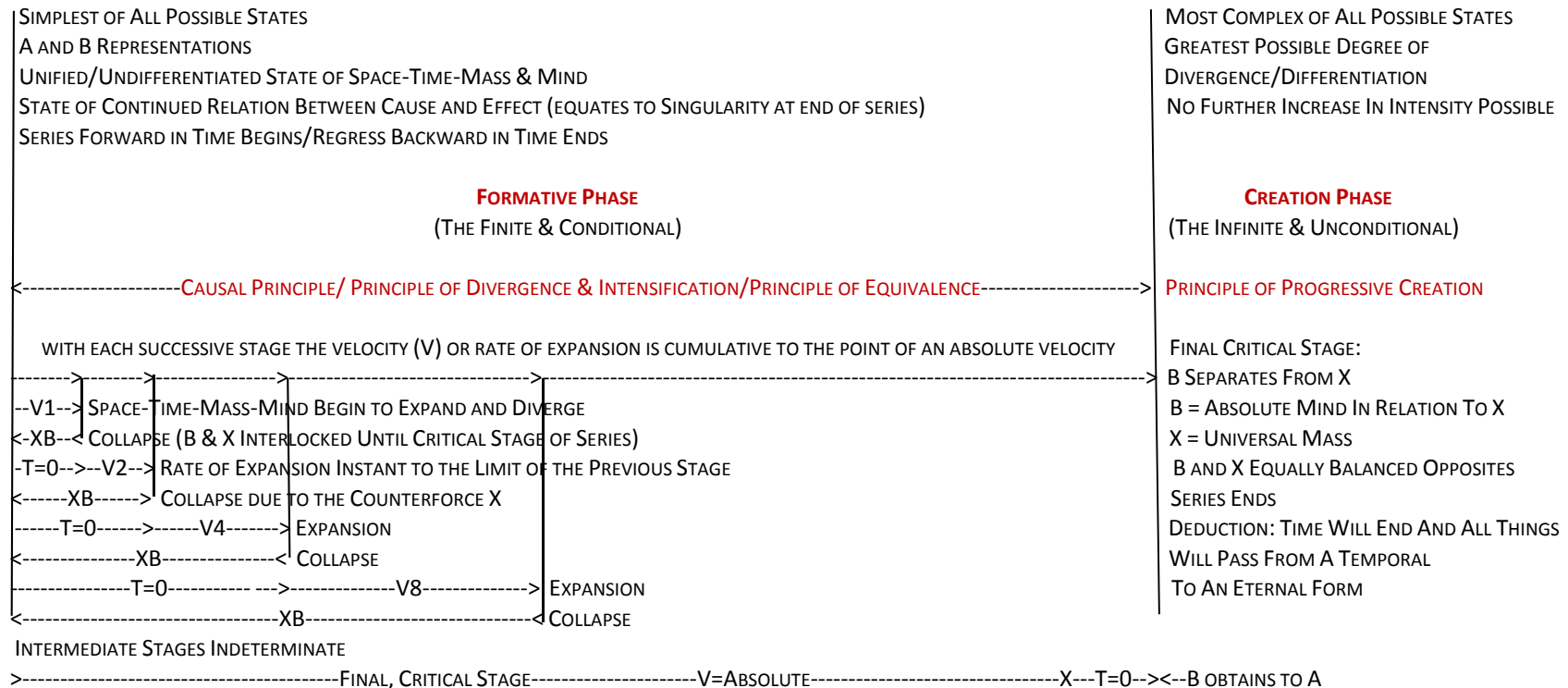
Conclusion: The second law of thermodynamics dictates that the universe should have cooled off and deteriorated into a less ordered as opposed to a more ordered state over time; however, given the two qualitatively differentiated forces that emerged from this series, we have grounds for an explanation for this otherwise impossible defiance of the laws of physics. This is found in the premise of this argument and the concept of a pure, dynamic, mobile force of mind that obtained through this series to the state of its Absolute Cause, having moved from its simplest possible state of being to its highest and most complex state—as Absolute Mind and Absolute Being.

It is this Absolute Mind and Absolute Being, with an unbounded capacity that transcends the material universe that has ordered the mass of divergent, material forces that were generated in its movement toward the Absolute, into our present reality.

Given all the evidence available to us through the natural sciences we have further grounds to judge that this Absolute Mind and Being has, over the billions of years that have past, undergone a process where the creative capacity of this Absolute Mind and Being has through the sheer exercise of this creative capacity increased in this capacity over this vast expanse of time, and to such an extent that accounts for the seemingly infinite variety of complex life forms before us, as well as our own conscious beings.

APPENDIX II

CAUSAL ARGUMENT IN ABSTRACT DIAGRAM FORM



THE NUMBER OF STAGES IS NOT DETERMINABLE BUT THE END OF THE SERIES FOLLOWS
 DUE TO THE CONTINUED DIVERGENCE BETWEEN B AND X AND THE RATE OF EXPANSION OBTAINING TO AN ABSOLUTE LIMIT

(THE UNIFORMITY OF THE COSMIC BACKGROUND RADIATION IS ACCOUNTED FOR BY MEANS OF AN INSTANTANEOUS EXPANSION
 AND B'S PURE, UNDIFFERENTIATED FORM AT THE OUTERMOST EDGE OF THE FINAL, CRITICAL STAGE OF EXPANSION—HERE THE CONCEPT OF HEAT IS IMPLICIT)