

## A PHYSICIST MANQUÉ

AWe physicists are by and large an extremely arrogant group of scholars. Our arrogance stems from the reductionist perception that ours is the ultimate science, and from our undoubted achievements over the past few centuries. What we promise, we generally deliver. Whatever one thinks of the social significance of the nuclear bomb, there is no doubt that it works. Solar eclipses occur exactly when we predict they will. As one who has spent his entire life as a physicist or as a physicist *manqué*, I not surprisingly share this arrogance. In my previous publications on religion and physics, I have attempted to conceal this arrogance (not very successfully). In this book, however, I have not bothered, mainly because such concealment in the past has prevented me from presenting the strongest case for reductionism. And reductionism is true. Furthermore, accepting reductionism allows one to integrate fully religion and science”

Frank J. Tipler, *The Physics of Immortality: Modern Cosmology, God and the Resurrection of the Dead*

*Manqué* is a French word meaning "unsuccessful," from the verb *manquer*, "to fail." I suppose Frank Tipler thinks he is an unsuccessful physicist to date, because he is teaching at a football college, Tulane, rather than at a more prestigious university (for physicists), such as MIT, Cal Tech or one of the Ivy League colleges, like Princeton. But I am going to take him literally, and say that he is indeed "a failed physicist," because the theory he presents in this book, is simply bad physics.

Tipler writes: "This is intended to be a popular book...In the main part of the book I'll describe in rough outline the basic ideas in the Appendix for Scientists, so anyone willing to do some hard thinking and with a high school education should be able to understand the main part." (p.xvi) This is just not true. The book deals mainly with quantum mechanics, including the so-called "theory" of quantum gravity, and general relativity, subjects far beyond the competence of high school graduates. I think Tipler is deliberately using an obscurantist technique for the purpose of intimidating theologians. Hugh Ross, a Protestant minister who is also an astronomer,

goes over much the same subjects as Tipler, and he is perfectly understandable to the average fairly well educated layman. He provides a glossary of all the scientific terms he uses, and urges you to skip any mathematical equations he has incorporated into his text as not absolutely necessary. Tipler is just the opposite. His text abounds in terms like the Beckenstein Bound, the Kolmogorov Complexity, the Markov Chain Recurrence Theorem, etc., etc., which he does not adequately define, and for which he provides no glossary. Ross writes: "Consider, for example, Englebert Schücking's statement, 'We have been able to scare most of the ministers out of cosmology by a straightforward application of tensor analysis.'" <sup>1</sup>

By this obscurantist technique Tipler has made his book deadly, and just about unreadable. So hopefully, despite a huge promotional campaign on the part of Doubleday, it will backfire on him, and the book will not do well in the stores. Unfortunately this obscurantist technique is quite common among atheistic scientists of the Tipler type. Fr. Stanely Jaki, who holds doctorates in both theology and physics, tells an amusing story about a theist, the mathematician, Euler, who routed an atheist, the French Encyclopedist, Diderot, by using their own technique:

A...Were this age of ours still the age of Euler, an atheist might still be silenced by confronting him with a simple algebraic equation. On being challenged by Euler - *Monsieur, (a + b n)/n = x, donc Dieu existe; repondez!* Diderot, so the story goes, fell silent and decided to leave at once the court of Catherine the Great where he had been busy spreading the good news of atheism.<sup>2</sup>

But Catholics should not allow themselves to be intimidated by Tipler's obscurantism, because we are able to look down on science from the vantage point of philosophy, and especially theology. But I think that anyone with a year of high school physics, could show why the theory Tipler sets forth in this book wont work. Tipler's universe is a perpetual motion machine, which he expects to run forever. The high school student would say, all such machines eventually run down, because of the Second Law of Thermodynamics, the Law of Entropy, which states that kinetic energy, no matter in what quantity, is gradually converted into heat, and no longer available for work.

There are currently three competing models of the Expanding Universe Theory, the open, the flat and the closed. The open universe will continue to expand forever, and will gradually die a Heat Death, as the stars burn out. The flat universe expands till the force of gravity gradually brings the expansion to a halt. This model will also die the Heat Death as the stars become extinct. The closed universe continues to expand until the force of gravity gradually overcomes the force of expansion, causing a contraction which finally ends in a "Big Crunch." Some scientists, such as Carl Sagan, hope that the universe will then rebound and go on to an endless series of expansions and contractions. Such an "Oscillating Universe," Sagan claims, would have no need of a God to create it. But this is just wishful thinking, because for one thing the observational evidence indicates that there is not enough mass in the universe to force a contraction. Hugh Ross writes

A:...Princeton physicists and astronomers of the 1960s and 1970s led an all-out search for what came to be termed the "missing mass" of the universe...Perhaps matter is hidden, hidden because it is not luminous, not luminous because it is dispersed in relatively small chunks. Alas, the missing mass was weighed in the balance and found wanting. To be sure, some missing mass was found, in fact, about ten times as much as one would get from adding up all the stars ... Intercluster matter may exist, but it would add a negligible amount...Even Peebles, who was one of the strongest advocates for a closed universe, now concedes that the density of the universe is only three-tenths of Friedmann's critical value. Recent measurements all favor an open, rather than a closed universe.@<sup>3</sup>

But despite Sagan's wishful thinking, even an oscillating universe would eventually run down. Father Jaki writes:

AAll this is characteristic of the fact that most references to the oscillating universe do not contain about it a most important information. The latter relates to the fact that the difference between a universe with a single expansion and a universe with many expansion-contraction cycles is far smaller than generally imagined. Since in an oscillating universe the energy peaks of successive cycles are smaller and smaller, a line connecting those peaks would graphically evoke that linearity which is the obvious characteristic of a universe with a single expansion. Both are in fact subject to the gradual diminution of the intensities of all physical processes in them.@<sup>4</sup>

Tipler is yet another pantheistic monist; only matter exists, there is no such thing as spirit or soul, and the universe is gradually evolving into God, after the fashion of the universes of Hegel, Bergson and Teilhard de Chardin. He says: "...the immortal soul is unnecessary, for its central purpose, and I propose we let the idea die. Its physical basis was slain by physics long ago." (p.293) Tipler's universe is closed, and characteristically he ignores the problem of the "missing mass," because Einstein's equations of general relativity predict a closed universe, and observational details like the missing mass should not get in the way of mathematics, especially Einstein's mathematics. Tipler is a Pythagorean, that is he believes that number is the ultimate reality. "Mathematical reality, the class of all logically consistent propositions, is regarded as the ultimate reality, and physical reality is a proper subclass of ultimate reality." (p.213) This is the end of all physics.

So instead of the Big Crunch at the end of the contraction, the universe has finally evolved into God, which he calls the "Omega Point," a term he took from Teilhard de Chardin. The universe has literally become a "point." "The available energy diverges to infinity as the universe goes to zero size and infinite temperature and density." (p.138) So the universe will go on forever because there is an infinite amount of energy. Tipler's God is not spirit, but matter, a machine, a computer which he calls a "universal Turing machine," a term I will explain later in the course of this paper. But if he wants to limit himself to matter, he is stuck with it. He can't then talk about matter as if it were spirit. The terms zero size, infinite energy, etc., are only true in mathematical constructs, not in physics. Matter, mass and energy, even the universe itself, are always finite in the real world. Tipler is confusing mathematics with physical reality, a common

failing of scientists who get so wrapped up in their theories, that they forget what the real world is like. Again Father Jaki:

Physics is also of great help insofar as it gives a most impressive, though not absolutely final, assurance that energy is quantized. Consequently, the total number of physical interactions would have to be finite in a finite universe. In that sense, physics strongly suggests a temporal finiteness for a physically active universe. This point may be greatly strengthened with badly needed qualifications about the true meaning of Cantor's work on transfinite numbers. Far from giving support to the idea of an actually realized infinite quantity, transfinite infinity, to recall a pointed remark of Hilbert, is nowhere to be found in reality.<sup>5</sup>

So as I said in the beginning, a high school student with a year of physics, could tell Tipler that his version of a perpetual motion machine will eventually run down. But Tipler is not only a physicist *manqué*, he is also a failure as a philosopher and as a theologian. Let us look at him now as a philosopher.

Tipler is a devotee of the so-called Copenhagen school of quantum mechanics. Modern physicists maintain that in some cases light acts as if it was made up of particles, and in other cases as if it consisted of waves. In 1923 the French physicist De Broglie suggested that this same dualism should be applied to electrons, and that they should be regarded as particles, but their motion should be analyzed in terms of waves. Erwin Schrödinger then proposed his theory of quantum mechanics or wave mechanics. He maintained that since electrons are so tiny Newton's classical laws of mechanics do not apply, and that their wave motions should be studied in accordance with the laws of probability. But quantum mechanics is only valid in the micro world; in the macro world, classical Newtonian mechanics still apply. Here is Hugh Ross on this point:

Quantum mechanical limitations apply only to micro, not to macro, systems. The relative uncertainty approaches zero as the number of quantum particles in the system increases. Therefore, what is true for a quantum particle would not be true for the universe as a whole.<sup>6</sup>

Please forgive me for quoting Tipler at some length on this point, because this will give me an opportunity to contrast what I am calling his obscurantist style, with Hugh Ross's straightforward presentation on the same subject. Here is Tipler:

Let me define operationally the Copenhagen and Many-Worlds Interpretations by applying both to analyze one of the most famous thought experiments in physics, the Schrödinger's Cat Experiment. Let us imagine ...that we have sealed a cat inside a steel chamber,...: in a Geiger counter there is a tiny bit of radioactive substance, so small that the probability is only one half that an atom decays...The Geiger counter is connected to a relay so that, if it detects an atomic decay, a hammer smashes a flask of deadly cyanide gas...at the end of an hour...the cat would either be alive or dead. According to the mathematics of quantum mechanics, however, the cat is neither! At the end of the hour, the wave function of the cat is not the wave function of a dead cat, nor is it the wave function of a live cat. Rather it is the wave

function of both a dead cat and a live cat: the true wave function is the sum of the dead cat and live cat wave functions. Quantum mechanics says unequivocally that the cat is simultaneously dead and alive...

According to the Many-Worlds Interpretation, there is no reduction of the wave function at all. That is, after one hour in the steel chamber, the cat is really in the quantum state  $\propto$ dead cat plus live cat.= The Many-Worlds Interpretation resolves the obvious inconsistency with observation by saying that the radioactive decay of the atom has forced the cat and all the pieces of equipment to split into two different worlds: the cat is alive in one of these worlds and dead in the other. If we now try to see whether the cat is alive or dead, then we also split into two...

Since the Omega Point Theory is fundamentally a cosmological theory; i.e., it is a quantum cosmology, I am virtually forced into adopting the Many-worlds Interpretation, because only in this interpretation is it meaningful to talk about a quantum universe and its ontology...The universe is just as quantum now as it was in the beginning. In the Many-Worlds Interpretation, the radius of the universe is just one of many quantum variables, like the life of the cat...Therefore, there are many universes...We happen to live in one of these universes, but there are other universes - and quite likely other versions of ourselves in them. There are Many Histories.@<sup>7</sup>

Notice that the Many Worlds Interpretation is based on a "thought experiment." There are no hard demonstrations that can be tested by observation in this kind of physics. How many high school graduates do you know who could follow that line of argument? Let me go on now to Hugh Ross going over the same material:

The evidence proffered for man as the creator comes from an analogy to delayed-choice experiments in quantum mechanics where it appears that the observer can influence the outcome of quantum mechanical events. With every quantum particle there is an associated wave. This wave represents the probability of finding the particle at a particular point in space. Before the particle is detected there is no specific knowledge of its location - only a probability of where it might be. But, once the particle has been detected, its exact location is known. In this sense, the act of observation is said by some to give reality to the particle. What is true for a quantum particle, they continue, may be true for the universe as a whole...

Quantum mechanics merely shows us that in the micro world of particle physics man is limited in his ability to measure quantum effects. Since quantum entities at any moment have the potential or possibility of behaving either as particles or waves, it is impossible, for example, to accurately measure both the position and the momentum of a quantum entity (the Heisenberg uncertainty principle.) By choosing to determine the position of the entity, the human observer has thereby lost information about its momentum.

It is not that the observer gives  $\propto$ reality $\propto$  to the entity, but rather the observer chooses what aspect of the reality of the entity he wishes to discern. It is not that the Heisenberg uncertainty principle disproves the principle of causality, but simply that the causality is hidden

from human investigation. The cause of the quantum effect is not lacking, nor is it mysteriously linked to the human observation of the effect after the fact.<sup>8</sup>

I hope I have made my point about Tipler's deliberate obscurantism for the purpose of intimidation, as opposed to the straightforward simplicity of Ross. Even more absurdly, Tipler claims that only in a Many-Worlds "ontology" can it be proved that we have free will:

A...I claim that,...any theory of free will that has agent determinism as an ontological ultimate is necessarily based on a Many-Worlds ontology. Agent determinism requires that it is really true that an agent >could have done otherwise.= However, the only way to be sure that the agent >could have done otherwise= is for the agent to have done otherwise in actual fact. That is, it is necessary that the agent in fact do two (or more) inconsistent actions simultaneously. This is of course possible only in a Many-Worlds universe.@(p.203)

The book is filled with gems like this - at least one per chapter. Tipler continuously talks about ontological quantum mechanics, ontological reductionism, etc. Father Jaki writes:

A...physicists might have also been awakened to the all-important fact that physical theory is not about >being= as such, or ontology, but only about the quantitative aspects of things already existing. When a physicist does not see this, he puts himself on that intellectual skid row that may land him in plain sorcery with words.@<sup>9</sup>

To try and impress us, Tipler mentions that Stephen Hawking, Murray Gell-Mann, Steven Weinberg, and Richard Feynman, whom he calls "four of the greatest theoretical physicists of the twentieth century," all subscribe to the Many Worlds Interpretation. But this just proves that once the fool in his heart has said, "There is no God," he gives himself over to foolishness. We know from our common sense and sanity that the Many Worlds Interpretation could not possibly be true. Tipler claims spiritual kinship with George Berkely (although I probably should not use the term "spiritual," since he believes only in matter), the idealist who did not believe in the existence of the material world, but only in the ideal. James Boswell tells an amusing anecdote about Samuel Johnson's reaction to the philosophy of Berkely:

A...After we came out of the church, we stood talking for some time together of Bishop Berkely's ingenious sophistry to prove the non-existence of matter, and that everything in the universe is merely ideal. I observed, that though we are satisfied his doctrine is not true, it is impossible to refute it. I never shall forget the alacrity with which Johnson answered, striking his foot with mighty force against a large stone, till he rebounded from it, >I refute it thus.=<sup>10</sup>

The Holy Ghost Father, Henry Korin, agrees that it is physically impossible for the same person to be in two places at once, but he doesn't think that it is metaphysically impossible, but that it could occur by way of miracle. Tipler of course says, "The lesson of science is clear: leave out miracles." (p.309) Father Korin is protecting the phenomenon of bi-location, which has occurred in the lives of many chosen souls.<sup>11</sup> One of the most well known cases of bi-location is that of the Venerable Mother Mary of Jesus of Agreda, who while at prayer in the chapel of her

Carmelite convent in Spain, was miraculously transported to the Southwestern portion of our country, where she preached the faith to the Indians, before the arrival of the Franciscan missionaries.

But the Many-Worlds Interpretation is not only physically impossible, it is also theologically impossible. Wouldn't you love to hear St. Thomas Aquinas's reaction to a human observer splitting in two while watching the cat experiment, or that the only way that free will can be proven, is for the same person to do two opposite actions simultaneously in two different worlds! Here is St. Thomas' theological argument against many worlds, which is just as valid today as it was when he first wrote it:

*Whether There Is Only One World?...*

*On the contrary*, It is said (John 1:10): "The world was made by Him," where the world is named as one, as though one existed.

*I answer that*, the very order of things created by God shows the unity of the world. For this world is called one by the unity of order, whereby some things are ordered to others. But whatever things come from God have a relation of order to each other, and to God Himself...Hence it must be that all things should belong to one world. Therefore, those only can assert many worlds who do not acknowledge any ordaining wisdom, but rather believe in chance as Democritus, who said that this world besides an infinite number of other worlds, was made from a casual concourse of atoms.<sup>12</sup>

Tipler says, "There are thus some histories (one hopes most) in which the Holocaust did not occur." (p.263) There cannot be a history in which the Immaculate Conception of Our Lady did not occur, nor can there be many Immaculate Conceptions. When Our Lady appeared at Lourdes in 1858, she said to St. Bernadette, not "I am the one who was immaculately conceived," but "I am the Immaculate Conception." St. Maximilian Mary Kolbe insists that Our Lady's words mean, that God could not create a more perfect creature on any possible world, thus excluding the possibility of another Immaculate Conception:

**A...**She does not say:  $\nabla$ I was conceived immaculately=; but  $\nabla$ I am the Immaculate Conception.= This points up not only the fact that she was conceived without sin, but also the manner in which this privilege belongs to her. It is not something accidental; it is something that belongs to her very nature. For she is Immaculate Conception in person.(Letter from Nagasaki..., Feb. 28, 1933)

**A**When Bernadette repeated her request the Immaculata revealed her true name by saying  $\nabla$ I am the Immaculate Conception.= To no one but her does such a name apply. When God revealed His name to Moses, he declared:  $\nabla$ I AM WHO AM=(Ex. 3:14), because God exists from eternity and to eternity. His essence is limitless Being, beyond all time, and under all aspects.(Sketch: 1940)

AWe say that she was conceived; hence she is not God, who has no beginning; nor is she an angel created immediately by God...Further, she calls herself >conception,= but not after the fashion of Jesus, who even though He was conceived, exists as God from all eternity.

ABut she is >Immaculate Conception.= This is what sets her apart from all other children of Adam. Hence the name Immaculate Conception belongs to her, and to her alone." (Sketch: 1940)  
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And finally let us look at Tipler as a theologian *manqué*. Here is his definition of man; this is what he means by reductionism:

ABut in order to do calculations, it is essential to translate basic biological concepts into physics language. It is necessary to regard all forms of life - including human beings - as subject to the same laws of physics as electrons and atoms. I therefore regard a human being as nothing but a particular type of machine, the human brain as nothing but an information processing device, the human soul as nothing but a program being run on a computer called the brain. Further, all possible types of living beings, intelligent or not, are of the same nature, and subject to the same laws of physics as constrain all information processing devices.@(p.xi)

Tipler defines life as "information preserved by natural selection," and he says that this means that automobiles are alive! It is worth giving this quote in full, because it lets us see the absurdity of physicalism, the reduction of all things to physics:

A...They self-reproduce in automobile factories using human mechanics. Granted their reproduction is not autonomous; they need a factory external to themselves. But so do male humans: to make a male baby, an external biochemical factory called a >womb= is needed. Granted, their reproduction requires another living species. But so does the reproduction of the flowering plants: such plants use bees to pollinate and animals to disperse their seeds. Viruses require the entire machinery of a cell to reproduce. The form of automobiles in their environment is preserved by natural selection: there is a fierce struggle for existence between various "races" of automobiles. Japanese and European automobiles are competing with native American automobiles for scarce resources - money for the manufacturer - that will result in either more American or more Japanese and European automobiles being built. By my definition of life, not only automobiles but all machines - in particular computers are alive. (Though of course automobiles are not >persons.=)@(p.125).

Automobiles are not "persons" because they cannot pass the "Turing Test." The Turing Test devised by the British computer scientist, Alan Turing, would place a human and a computer behind separate screens, connected by interactive consoles to a person in front. This person types questions to both the computer and the human, and when he can't tell which is the human, and which the computer, then the computer has passed the Turing Test. Tipler admits that no computer could pass this test today, but he thinks that within thirty years they will. Eventually he thinks that computers will far outstrip humans in intelligence, and gradually replace them.

A...Our brains can code only so much information, we can understand only rather simple arguments. If the ascent of life into the Omega Point is to occur, one day the most advanced minds must be non-Homo sapiens. The heirs of our civilization must be yet another species, and their heirs yet another, ad infinitum into the Omega Point. We must die as individuals, as a species - in order that our civilization might live. but the contributions to civilization which we make as individuals will survive our individual deaths. Judging from the rapid advance of computers at present, I would guess that the next stage of intelligent life would be quite literally information processing machines.@ (p.218).

This sounds for all the world like it is right out of Samuel Butler's *Erehwon*, and Tipler like a *bona fide* graduate of one of Erehwon's "Colleges of Unreason." Butler writes:

"=There is no security= - to quote his own words - >against the ultimate development of mechanical consciousness, in the fact of machines possessing little consciousness now. A mollusc has not much consciousness. Reflect upon the extraordinary advance which machines have made during the last few hundred years, and note how slowly the animal and vegetable kingdoms are advancing. The more highly organized machines are creatures not so much of yesterday as of the last five minutes, so to speak, in comparison with past time. Assume for the sake of argument that conscious beings have existed for some twenty million years: see what strides machines have made in the last thousand! May not the world last twenty million years longer? If so, what will they not in the end become? Is it not safer to nip the mischief in the bud and to forbid them further progress?=@<sup>14</sup>

Tipler doesn't have enough imagination to suggest as Butler does, that the machines might keep the humans on as pets:

"Herein lies our danger. For many seem inclined to acquiesce in so dishonourable a future. They say that although man should become to the machines what the horse and dog are to us, yet that he will continue to exist, and will probably be better off in a state of domestication under the beneficent rule of the machine than in his present wild condition.@<sup>15</sup>

Butler wrote *Erehwon* in 1872 intending it as a humorous satire on Darwinian evolution, which was already taking over in intellectual circles. But Tipler is dead serious; for him >Nowhere= is here. Once computers can pass the Turing Test, the next step will be to build what Tipler calls a >von Neumann Probe.= This is a self-reproducing universal constructor: a machine capable of making any device, given the construction materials and a construction program. These machines which of course are persons by Tipler's definition, will be sent to nearby stars where they will make copies of themselves, send them off to other star systems, until the universe is engulfed with life.= Tipler estimates that this program could be launched within thirty years. Carl Sagan, who strongly objects to this program, writes:

A...the prudent policy of any technical civilization must be, with very high reliability, to prevent the construction of interstellar von Neumann machines and to circumscribe severely their

domestic use. If we accept Tipler's arguments, the entire Universe is endangered by such an invention; controlling and destroying interstellar von Neuman machines is then something to which every civilization - especially the most advanced - would be likely to devote some attention.<sup>16</sup>

This again is right out of Butler's *Erewhon*. A civil war had broken out between the "machinists" and the "anti-machinists." The anti-machinists have won, and the machines have ended up as curios in museums, the people returning to a more simple life. But Tipler is unfazed by the attack of the anti-machinists. "Ultimately intelligent machines will become more intelligent than members of the species *Homo sapiens*, and will thus dominate civilization. So what?" (p.87)

Interestingly enough the mathematician Von Neumann, after whom Tipler named his "self-programming robots," would not agree that such a machine was possible.

A...It is part of this circumstance that bars analysis, this most elaborated branch of mathematics, from the task of working out an exhaustive computer or automaton theory; and this is what relegates this task to the realm of combinatorics which, to use Von Neumann's appraisal is one of the technically most refractory part of mathematics.<sup>140</sup> For, as he noted with emphasis, the theories underlying the functions of present-day automata are rough and largely empirical, and these theories will hardly suffice for computers of far greater complexity. On the other hand without a new theoretical insight no meaningful plans can be laid for them. As to the possibility of automata emulating the complexity of the central nervous system, he deemed it inconceivable that one could ever formulate a mathematical theory of coping with such an enormous degree of complexity. This intellectual inadequacy, he added, certainly prevents us from getting much farther than we are now.<sup>141 17</sup>

We saw that Tipler believed in a closed universe, despite the problem of the "missing mass," because Einstein's equations of General Relativity predict such a universe, and for Tipler the world of mathematics is the real world. Here is Eddington, Einstein's friend and admirer, describing this mathematical world:

Eddington gives the following picture of Einstein's world according to curved space-time. >His world is cylindrical-curved in the three space dimensions and straight in the time dimension. Since time is no longer curved, the slowing of phenomena at great distances from the observer disappears...The radius [of the universe] is thought to be of the order 10<sup>13</sup> times the distance of the earth to the sun. A ray of light from the sun would take about 1000 million years to go around the world; and after the journey the rays would converge again at the starting point, and then diverge for the next circuit. The convergent rays would have all the characteristics of a real sun so far as light and heat are concerned only there would be no substantial body present. Thus corresponding to the sun we might see a series of ghosts [phantom suns. - Author.] occupying the position where the sun was 1000, 2000, 3000, etc., million years ago... Perhaps one or more of the spiral nebulae are really phantoms of our own stellar system."<sup>18</sup>

The Capuchin Father, Celestine Bittle comments on Eddington's description of Einstein's world:

A...The description of the universe as a 'non-euclidian space-time continuum with 'curvature' which leads back to its starting point, so that there might be 'phantom' suns and stars in the heavens, is something so weird that one cannot avoid the suspicion that a mathematical formula has been substituted for the reality of the physical world. So far as our actual experience of the world and its dimensions are concerned, it is euclidian in every respect. To deny the essential validity of this experience, is tantamount to a destruction of the validity of all knowledge.@<sup>19</sup>

In billions of years the universe, according to Tipler, will begin to contract, but it has been "engulfed with life," that is with finite state Turing machines (computers), and these computers will intercept the light rays that have turned around at the end of the universe. "But all timelike and lightlike curves converge upon the Omega Point. In particular, all the light rays from all the people who died a thousand years ago, from all the people now living, and from all the people who will be living a thousand years from now, will intersect there...these rays will be intercepted...by the living beings who have engulfed the physical universe near the Omega Point. All the information which can be extracted from these rays will be extracted at the instant of the Omega Point." (pp.157,158)

Since Tipler says there is no such thing as a soul, the dead do not exist. "In the Omega Point Theory, when you're dead, you're dead - until the Omega Point raises you up." (p.281). When the interception of the light rays is complete, the resurrection of the dead will take place. "This, then, is the physical mechanism of individual resurrection: we shall be emulated in the computers of the far future." (p.220).<sup>20</sup> Tipler continues:

AThe key question is this: do the emulated people exist? As far as the simulated people can tell, they do. By assumption, any action which the real people can do and do carry out to determine whether they exist - reflecting on the fact that they think, interacting with the environment - the emulated people also can do, and in fact do. There is simply no way for the emulated people to tell that they are ~~really~~ inside the computer, that they are merely simulated, and not real. They can't get at the real substance, the physical computer, from where they are, inside the program. One can imagine the ultimate simulation, a perfect simulation - an emulation - of the entire physical universe, containing in particular all people whom the real universe contains, and which mimics perfectly the actual time evolution of the actual universe. Again there is no way for the people inside this simulated universe to tell that they are merely simulated, that they are only a sequence of numbers being tossed around inside computer, and are in fact not real.

AHow do we know we ourselves are not merely a simulation inside a gigantic computer? Obviously, we can't know. But obviously we ourselves really exist.@(p.207).

This reminds me of a skit I once saw on a television program called *Candid Camera*. A few patients were sitting in a doctor's office watching a program on TV - two people having a conversation. Suddenly the same two people on the TV walked into the office, and continued their conversation with the patients. The patients didn't bat an eye, but joined right in. The humor of the situation was supposed to be, that some people can't tell the difference between TV and real life. I wonder if Tipler would have thought this skit was funny.

In the very early Church there was a heresy called Docetism, from the Greek word *dokeo*, "to seem to be." The Docetists taught that Our Lord had not really risen from the dead, but that His body only "seemed to be." Tipler is offering us a universal Docetism, in which we will all "seem to" have risen, a "simulation," rather than the real thing.

Tipler despises the Christian vision of heaven. "My overall impression is that, as a general rule, Christians grossly underestimate the pleasures that will be available in Heaven. They greatly underestimate what a Being with really infinite power can do. The early twentieth-century Christian Heaven often pictured the resurrected dead singing praises to God for an eternity. Leaving aside the obvious fact that no Omnipotent God - certainly not the Omega Point - would have any interest in such songs, human beings would find such an afterlife excruciatingly boring." (p.258).

Tipler says that the Omega Point will place the resurrected dead in their "ideal fantasy world."

AMy students - mainly young unmarried males - often ask me, >Will there be sex in Heaven?=< This is a perfectly reasonable question in Islamic eschatology... and since some people desire sex, the answer has to be yes, sex will be available to those who wish it. This...is in sharp contrast with the picture of Heaven painted by academic theologians, who seem to think that only intellectual pleasures will be permitted people in the afterlife...A man like Aquinas who had no interest in sex will not experience it, but people who desire it will experience it.

A...The Omega Point should be able to calculate which among all possible people would be the best mate for a given person, and simulate him in the same environment as her...it would be possible for each male to be matched not merely with the most beautiful woman in the world, not merely with the most beautiful woman who has ever lived, but to be matched with the most beautiful woman whose existence is logically possible.@<sup>21</sup>

Of course Tipler sees the Resurrection of Our Lord in competition with his Omega Point resurrection. He says: "...Joseph Fitzmyer, who wrote the Anchor Bible Commentary on Luke, accepts the biblical consensus for the date of the composition...the later date would obviate the possibility of Luke containing any eyewitness accounts of the risen Jesus, and also would allow Luke to be a rewrite of Mark, the original version of which contains no mention of the risen Jesus. In which case Luke is merely recording a mythic account of Jesus' resurrection. In which case there is no need to entertain the possibility that Jesus actually rose from the dead. In which case there is no embarrassing inconsistency between the Bible and the observed fact that the

dead do not rise. In which case the central truth of Christianity is false, and Christianity would be allowed to wither away, or become a political movement." (pp.307,308). Tipler gives as his authority for these statements the Catholic biblical Modernist, Fr. Joseph A. Fitzmyer, S.J., who with his friend, Fr. Raymond Brown, S.S., have been casting doubt on the bodily resurrection of Our Lord for years, and getting away with it Fitzmyer's Proto-Mark, which supposedly contains no account of the Resurrection of Our Lord, is a mythological concoction of liberal Protestants around the turn of the century, which was picked up by Catholic Modernists. It was condemned by the Pontifical Biblical Commission in 1912. (*Enchiridion Biblicum*, 391) At the same time the Biblical Commission also upheld the traditional chronological order of the Gospels, Matthew, Mark and Luke. (*Ench. Bib.*, 394), and that St. Luke had indeed gathered his account from those "who from the beginning were eyewitnesses and ministers of the word" (Lk.1:1,2). (*Ench. Bib.*, 398)

Tipler says of Jesus: "I think his body rotted in some grave." (p.310) Tipler discusses resurrection as it occurs in all the world religions, Jewish, Moslem, Native American, Far Eastern, African, etc., and always with great respect. Whenever he mentions God he always writes "He/She," to humor the feminists. This is considered PC today, "politically correct," in academia and the media. If he were to write anything offensive to the Jews, for example, he would probably be fired from Tulane, and Doubleday wouldn't touch his book with a ten foot pole. But whenever he mentions Catholicism, it is always with a sneer. This is considered perfectly acceptable in academia and the media, which only proves that the Catholic Church is the only Church worth attacking, because it is the only true Church.

The Tipler resurrection is universal, everyone is saved. The only person he has some qualms about, because of Jewish sensibilities, is Hitler. "...it should be possible for the Omega Point to persuade a resurrected Jew who perished with his entire family in Auschwitz to forgive Hitler. (Assuming the Omega Point would wish to do this. I personally feel that unforgiveness is justified in this case.)" (p.253). The reason Tipler rejects the divinity of Our Lord is, "the contradiction between Jesus' picture of a loving God and his insistence on eternal punishment in Hell...(and according to Matthew, this eternal punishment is for rather trivial offenses)...the Omega Point Theory predicts a loving God and (almost) universal salvation." (p.316).

Tipler also goes to the liberal Catholic "theologian," Hans Kung for his false claim, that not until Vatican Council II did the Catholic Church finally reject *Extra ecclesiam nulla salus*, again showing the superiority of Omega Point theology. Tipler quotes Kung on *Lumen Gentium* (2,16): "Those also can attain eternal salvation who through no fault of their own do not know the gospel of Christ or His Church, yet sincerely seek God, and moved by grace strive by their deeds to do His will as it is known to them through the dictates of conscience." Kung stops there, but Vatican II does not say, that such people of good will can be saved if they remain where they are, but rather continues: "...Whatever goodness or truth is found among them is looked upon by the Church as a preparation for the Gospel"..."[ it is to such as these that the Church] "to procure the salvation of all such men...painstakingly fosters her missionary work." <sup>22</sup>

But in a footnote Tipler lets us know what he and his cronies really think of Catholic biblical Modernists like Fitzmyer, and liberal theologians like Kung:

«Weinberg is even harder on modern theologians than I am: »Religious liberals are in one sense even farther in spirit from scientists than are fundamentalists and other religious conservatives. At least the conservatives like the scientists tell you that they believe in what they believe because it is true, rather than because it makes them good or happy. Many religious liberals today seem to think that different people can believe in different mutually exclusive things without any of them being wrong, as long as their beliefs 'work for them.' This one believes in...heaven and hell, [that one] in the extinction of the soul at death, but no one can be said to be wrong as long as everyone gets a satisfying spiritual rush from what they believe...We are surrounded by 'piety without content'...I happen to think that the religious conservatives are wrong in what they believe, but at least they have not forgotten what it means to believe in something. The religious liberals seem to me to be not even wrong.= (Weinberg 1992, pp.257,258). I have the same impression of liberal theologians. Feynman is even harder on liberal theologians than Weinberg. In his best-selling book *Surely You're, Joking Mr. Feynman!* he calls them »pompous fools.= (Feynman 1986, p.259)@<sup>23</sup>

Tipler brushes off all objections scientific and otherwise, to the Omega Point Theory with the magic word, Progress. Maybe we can't do this right now, but we will be able to do it in the future, is his stock answer. He summarizes this position.

«The Omega Point Theory is based on the Eternal Life Postulate...I shall formally state the Eternal Life Postulate in the form of three conditions which must hold if we are to say that life continues forever. It will turn out that these conditions are basically a claim that progress will continue indefinitely, literally to infinity in all standard measures. I have already shown...that, in order to survive, life must eventually expand beyond the Earth. This requires progress, specifically the advance of technology. Without progress, the complete and total extermination of all life is inevitable. Even though this fact has been appreciated (at least by physicists) since the middle of the nineteenth century, progress has not always been regarded as inevitable, or even as a good thing. There are two major philosophical and scientific doctrines which have been opposed to the idea of progress: Eternal Return [the Oscillating Universe] and the Heat Death [the expanding forever universe].@ (p.66).

Physicists have been speaking in this appalling manner since the last century. "...for religion to survive, physics must be extended into theology. Or, as the nineteenth century physicist John Tyndall put in his famous Address before the British Association for the Advancement of Science: 'The impregnable position of science may now be described in a few words. We claim, and we shall wrest from theology, the entire domain of cosmological theory.' With the introduction into physics of the Dirac/Dyson Eternal Life Postulate, science has taken the last independent stronghold of theology. Thus, theological research in the twenty-first century will require a Ph.D in particle physics.@(p.329).

One of the first to attack Tyndall was that great Catholic apologist of the last century, Orestes A. Brownson. Let me just give a little idea of the marvelous article he wrote in his *Review* on Tyndall's address. His words apply equally well to Tipler:

If any proof were wanted of the anti-Christian sentiments and tendencies of contemporary scientists, and the neglect of the higher branches of a thorough education, the general ignorance of the simplest elements of religion, and the fearful intellectual abasement, we might almost say intellectual imbecility, of the leaders of the age, we might find it in the fact that such an address as this by Professor Tyndall could be delivered before an association of professedly scientific men, and when published should produce a profound impression, and be received with no little favor by public opinion. The address, aside from a certain pomp of diction, an emphasis, and an air of superiority and assurance with which Englishmen usually conceal their ignorance and poverty of thought, has nothing remarkable about it. It contains nothing that we have not heard in substance over and over again, ad nauseam, from our very boyhood. We discover in it a passable rhetorician, but no logician, no thinker, no scholar, nor even an ordinarily well-informed gentleman, outside of certain of the special sciences, which he may have cultivated with more or less success. In regard to the subjects treated in the address, whatever he knows or thinks he has picked up at third or fourth hand; and in reality he knows simply nothing, not even that he knows nothing of them, and only makes a fool of himself in the eyes of all who have studied them and really do know something of them. Yet John Tyndall is a great man, one of the demigods of the scientific world in this nineteenth century, the inventor of a smoke respirator!

Before preceding to any particular examination of this very pretentious, but really flimsy address itself, whose tinsel the public mistake for solid gold, we wish to call attention to an unwarrantable assumption with regard to the religious history of mankind, on which the author and his infidel brother-scientists base their theorizing on religion and theology. This assumption is, that the gross heathen superstitions were the earliest forms with which the religious sentiment clothed itself; and that the history of the development, changes, and modifications these superstitions undergo from nation to nation and from age to age, presents the complete religious history of the race. Deprive them of this assumption, and all their theorizing on the subject of religion falls to the ground. Yet for this assumption there is not only not one particle of historical proof, but the direct and positive testimony of history to the contrary. History shows us the human race in possession of a pure and holy religion, the worship of the one living and true God, Creator of heaven and earth, before a single trace of any of these heathen superstitions is discoverable. These superstitions are one and all of them fruits of the great gentile apostasy from the primitive and true religion; and their developments, changes, and modifications are due to the efforts of men and themselves without clothing or shelter in this wintry world, to construct out of their own reminiscences and their own inner consciousness some sort of covering for their nakedness, and some sort of protection from the winter's blast, just as we see individuals and nations that have apostasized from Christ and protested against the papacy, now doing. Having forsaken the Fountain of living waters, they are fain to hew out cisterns for themselves, broken cisterns that will hold no water.= The origin, developments, and changes of the heathen superstitions may be read in the origin, developments, and changes of your modern Protestant

sects. The world outside of the church travels in a circle, and ever and anon comes round to its starting-point, as does the poor lad who has lost his head in the woods. There is progress only in the church; only in her does a man recover his lost head, and find his way home.<sup>24</sup>

Tipler's own book is a rebuttal of his doctrine of progress. The false history of religion, still taught in our "colleges of unreason," claims that religion originated in fetishism, e.g., the worship of stones, like the sacred black stone of the Moslems in the Kaaba at Mecca, then progressed through various stages of polytheism, and finally arrived at monotheism. The religion that Tipler is offering us is a form of fetishism. He has made a fetish of the computer. The computer is alive and will be able to pass the Turing Test in about thirty years, and thus become a person. It will go on to surpass us in intelligence and replace us as the dominant species. It will finally evolve into "God," a gigantic computer squashed into zero space, which will call us up as an "emulation," thus "raising us from the dead." But Tipler has sunk lower than fetishism. At least the fetishists prayed to their god, and thought it could help them. Tipler says he does not pray to his Omega Point god. "If you can feel the truth without these rituals, then don't pray (I don't, for example)." (p.337) It wouldn't do any good to pray, because his god can't intervene in history. "This does not mean, however, that God intervenes in human history in a supernatural way." (p.14).

Tipler is a Southerner, a former Evangelical Protestant, who became an atheist when he attended college, and occasionally his Jimmy Swaggart background shines through his thin academic veneer, especially on the subject of priests. "Origen was condemned (posthumously) as a heretic for defending the idea of potential universal salvation. The doctrine is bad for business: if God is going to try to save everyone even after death, why pay priests for remission of sins." (p.254). "...if the doctrine of the Real Presence were false, it would prove that Catholic priests had no control over who entered Heaven. Furthermore, by coming between God and humankind, these false priests put at risk the after lives of everyone who followed them. They were the dangerous menaces to public health, and should be killed to save the afterlives of the citizens." (p.318). His hatred of priests spills over into a hatred of the Blessed Eucharist. "According to modern science, if the altar bread appears to be bread, and further, if there is no experiment, even in principle, which can distinguish between the blessed bread and unblessed bread, then the altar bread is bread and nothing else." (p.343).

The Franciscan Father, Peter Fehlner's analysis of the history of the doctrine of progress, reads almost like a prophecy of Tipler and his kind of thought:

**A**...Unlimited human progress and perfectibility on earth promised by human science and achieved by human technology could be rationalized as the ultimate hope and inspiration of human activity. And from the marriage of progress with the theory of an eternal world came the modern notion of unending evolution toward a better and better future in this world.

**A**Since that time a certain number of characteristics have attached themselves to this kind of thought and are of considerable interest because they tend to be present wherever evolutionary thought predominates.

A1. The religious practice inspired by this kind of thought is strongly indifferent to dogma and highly syncretistic, seeking to reduce particular religions to a higher synthesis and very often giving to this synthesis a certain number of Christian trappings.

A2. Movements impregnated with this kind of thought are radically anti-clerical in a violent manner, because firstly the existence of Catholic clergy, in particular the Pope, is seen as an obstacle to religious progress and renewal, and secondly as an obstacle to intellectual freedom and moral spontaneity. In this framework the destruction of the clerical Church is the necessary condition for progress or evolution. Indeed this kind of principled and militant anti-clericalism throughout the history of the Church has invariably been the *sine qua non* for any plausible identification of the spiritual with the temporal (idolization of the present world and denial of the world to come).<sup>25</sup>

The book has a surprise ending:

ATo emphasize the scientific nature of the Omega Point Theory, let me state here that I am at present forced to consider myself an atheist, in the literal sense that I am not a theist (Atheist means >not theist.=) I do not yet even believe in the Omega Point. The Omega Point Theory is a viable scientific theory of the future of the physical universe, but the only evidence in its favor at the moment is theoretical beauty, for there is as yet no confirming experimental evidence for it.(p.305).

"Theoretical Beauty?" - I think that this is the ugliest theory I have ever heard of. It is possible that the theory is a ploy for Tipler and his cronies to get a giant new particle accelerator, the SSC, the Texas Supercollider for billions of dollars at the taxpayers' expense. Tipler sees himself appearing before a committee of dumb Congressmen. In 1987 Stephen Weinberg testified in favor of building the SSC. One of the Congressmen asked him, "*will this make us find God?*" [Tipler's emphasis] Weinberg said nothing in reply because as he later wrote, "...it did not seem to me that letting them know what I thought about this would be helpful to the project...It would be wonderful to find in the laws of nature a plan prepared by a concerned creator in which human beings played some special role. I find sadness in doubting that we will." (p.335).

Weinberg is at least honest; I can't say the same for Tipler.

"If I had been there, I would have replied, '...if the Omega Point Theory is true (and my Higgs-shear effect is real) then yes, it would.'" (p.335). Tipler talks continuously in the book about the yet to be discovered Higgs boson and its associated field, which he thinks will power his perpetual motion machine forever. This is not physics, but anti-physics, and anti-science.

I should point out before I close the culpability of men like Tipler. St. Paul writes: "For the invisible things of him, from the creation of the world, are clearly seen, being understood by the things that are made; his eternal power also, and divinity: so that they are inexcusable."

(Rom. 1:20). In an address delivered to the Pontifical Academy of Science, Pope Pius XI warned scientists:

AMay not that terrible vision recur to any of them, that terrible vision which though for a moment the Apostle of the Gentiles had: namely, that every high intelligence of this kind ought to become deeply interested in the pursuit of the whole truth, so that it might not happen that an intelligence created by God, illuminated by God, would not rise to the Creator. To such an intelligence ought to be applied that great, grave and logical condemnation mentioned by the Apostle himself in these terrible words: "*ita ut sint inexcusabiles*" [so that they are inexcusable]; as if to say that they could not have an excuse not to have known the Maker, the Creator, after having known His works, His creature.<sup>@26</sup>

But we know from our faith that the world is not going to end by natural processes, whether it be a Heat Death, a Big Crunch, or an Omega Point. The world is going to end as it began, by miracle, and not in a hundred billion years, but possibly, as Our Lord tells us in the Gospels, in our own life time. St. Peter writes in his Second Epistle:

AKnowing this first, that in the last days there shall come deceitful scoffers, walking after their own lusts, saying: Where is his promise or his coming? for since the time that the fathers slept, all things continue as they were from the beginning of the creation. For this they are wilfully ignorant of that the heavens were before, and the earth out of water, and through water, consisting by the word of God. Whereby the world that then was, being overflowed with water, perished. But the heavens and the earth which are now, by the same word are kept in store, reserved unto fire against the day of judgment and perdition of the ungodly men.

ABut of this one thing be not ignorant, my beloved, that one day with the Lord is as a thousand years, and a thousand years as one day. The Lord delayeth not his promise, as some imagine, but dealeth patiently for your sake, not willing that any should perish, but that all should return to penance.

ABut the day of the Lord shall come as a thief, in which the heavens shall pass away with great violence, and the elements shall be melted with heat, and the earth and the works which are in it, shall be burnt up. Seeing then that all these things are to be dissolved, what manner of people ought you to be in holy conversation and godliness? Looking for and hasting unto the coming of the day of the Lord, by which the heavens being on fire shall be dissolved, and the elements shall melt with the burning heat? But we look for new heavens and a new earth according to his promises, in which justice dwelleth.<sup>@(II Peter 3:3-13).</sup>

And in the Apocalypse of St. John:

ABand from Jesus Christ, who is the faithful witness, the first begotten of the dead, and the prince of the kings of the earth, who hath loved us, and washed us from our sins in his own blood, and hath made us a kingdom, and priests to God and his Father, to him be glory and empire for ever and ever. Amen.

Behold, he cometh with the clouds, and every eye shall see him, and they also that pierced him. And all the tribes of the earth shall bewail themselves because of him. Even so. Amen.

I am the Alpha and Omega, the beginning and the end, saith the Lord God, who is, and who was, and who is to come, the Almighty. (Apocalypse 1:5-8).

Feast of Christ the King, 1994

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### *References*

- 1 Schöcking, E.L. "Cosmology," in *Relativity Theory and Astrophysics I. Relativity and Cosmology* edited by Jurgen Ehlers, American Mathematical Society, Providence, R.I., 1967, p.218; cited in: Hugh Ross, *The Fingerprint of God*, Promise Publishing Co., Orange, CA, 1991, p.35, n.g.

Hugh Ross is excellent in exposing the pretensions of scientism, but unfortunately he has allowed himself to be taken in by one of its most glaring examples, evolutionism.

- 2 Stanley L. Jaki, *The Road of Science and the Ways to God*, The University of Chicago Press, Chicago, 1978, p.324.

Father Jaki is also excellent in debunking the delusions of scientism, but unfortunately like Hugh Ross, he has also fallen victim to its longest running hoax, evolutionism.

- 3 Hugh Ross, *The Fingerprint of God*, Promise Publishing Co., Orange, CA, 1991, pp.102,103.

- 4 Stanley L. Jaki, *God and the Cosmologists*, Scottish Academic Press, Edinburgh, 1989, p.78.

- 5 Jaki, *God and the Cosmologists*, pp.80,81.

Canon Desireé Nys also complains about treating mathematical formulations as if they were physical reality:

*Is space with four or "N" dimensions a possibility?*

A...Since analytical geometry represents the lines of a plane and the surfaces of tridimensional space by means of equations with two or three variants, equations with four or n variants have been selected as representing the additional figures with four or n dimensions. In other words the number of variants has been made to conform to the number of real dimensions. The lawfulness of such a procedure can be seriously questioned, especially if we regard it as more than a pure mathematical device to render formulae more pliable and more productive of results As Wundt has well observed, fiction of this sort may be of great value in furthering the cause of higher mathematics but we must never forget the great

danger of applying higher mathematics to reality. The far-fetched analogies which they have with geometry do not warrant us in transforming them into real geometric representations. From the latter point of view they are worthless.®

Desireé Nys, Cosmology, *The Philosophical Study of the Inorganic World*, Volume II, translated by Sidney A. Raemers, The Bruce Publishing Co., Milwaukee, 1941, p.432.

6 Ross, p.135.

7 Tipler, *Op. cit.*, pp.168-170.

8 Ross, *Op. cit.* pp.133,134.

9 Jaki, *God and the Cosmologists*, p.119.

10 James Boswell, *The Life of Samuel Johnson*, The Modern Library, New York, 1952, p.129.

In the Appendix for Scientists at the end of the book, after a couple of pages of mathematical equations, Tipler summarizes:

¶There are thus two ›worlds‹: in one the cat is dead, and in the other the cat is alive. If a human being is added to the system - to look to see if the cat is alive or dead - then the interaction of the human with the cat system would force the human to split as well. Other humans looking at the first human and also the cat would also split into two worlds: in one they would all see the cat alive and would all agree the cat is alive, and in the other they would all see the cat dead and would all agree the cat is dead.

The Many Worlds Interpretation is forced on us by three assumptions:

- (1) all systems - including humans - are quantum systems;
- (2) all time evolution is linear, governed by Schrödinger's equation; and

(3) measuring devices work as they should. If, for example, the cat is dead (in an eigenstate of ›deadness‹), then any correctly operating device must say the cat is dead. In particular, if humans are the measuring devices, then if the cat is indeed dead, all ›correctly operating‹-humans must see the cat dead. (All ›incorrectly operating‹-humans are carted off to a mental institution).®(p.488).

I will leave it to the reader who should be carted off to a mental institution. Canon Nys writes:

¶Do they regard a theory of this kind merely as a whimsical lucubration aprioristically created by an intellect completely indifferent to the things around it, and do they see in it nothing more than a logical and possible metaphysical speculation? If such is their view, we have no quarrel with them, for it is their business to defend the coherence and possibility of their theory, as it is the mathematicians' to discuss God's power to create a world of ten or twenty dimensions. If, however, they maintain that their system is not pure fiction, but the faithful expression of reality, and that the constitutive principles of matter formulated by them are actually realized in all corporeal essences, then we inquire if their intelligence is differently constituted than ours, and if their knowledge of the intimate nature of things is derived by a sort of direct and immediate intuition or by the patient study of phenomena.®

Desireé Nys, *Cosmology, The Philosophical Study of the Inorganic World*, Volume I, translated by Sidney A. Raemers, The Bruce Publishing Co., Milwaukee, 1941, p.49.

11 Henry J. Korin, C.S.Sp., *An Introduction to the Philosophy of Nature*, Duquesne University, Pittsburgh, 1960, pp.104,105.

I apologize for not citing from Father Korin's excellent little book in full, but he makes a few typically scholastic distinctions and qualifications (circumscriptive presence versus non-circumscriptive presence), which would be too much of a digression to explain. I am trying to keep this paper as brief as possible, and not doing very well at it.

12 St. Thomas Aquinas, *Summa Theologica*, I, Q47, a3.

13 Cited in: Fr. H.M.Manteau-Bonamy, O.P., *Immaculate Conception and the Holy Spirit*, Prow Books, Franciscan Marytown Press, Libertyville, IL, 1977, pp.7,8.

14 Samuel Butler, *Erewhon, Erewhon Revisted*, Everyman's Library, J.M. Dent and Sons Ltd., London, 1965, p.141.

15 Butler, *Op. cit.*, pp.158,159.

16 Tipler, pp.86,87, n.87, Sagan, Carl and William I. Newman 1983, "The Solipsist Approach to Extraterrestrial Intelligence," *Quarterly Journal of the Royal Astronomical Society*, p.115.

Carl Sagan is mad at Tipler because in his previous book he had written: THERE ARE NO EXTRATERRESTRIALS! If they existed, they would already be here." (p.351, n.57) Sagan thinks that there is no salvation outside of SETI (Search for Extra Terrestrial Intelligence), and that the first radio message we receive from outer space will probably tell us how to survive our current technological crisis. (Cf. *Broca's Brain*, pp.274,275). While Tipler believes there is no salvation outside of universal Turing machines. "But the fundamental reason for allowing the creation of intelligent machines is that, without their help, the human race is doomed. With their help we can and will survive forever." (p.44)

17 Stanley L. Jaki, *Brain Mind and Computers*, Herder and Herder, New York, 1969, pp.58,59, n.140 "The General and Logical Theory of Automata," a paper read at the Hixon Symposium, Pasadena, CA, (September 20, 1948). Reprinted in J.R. Neumann (ed.), *The World of Mathematics*, IV (New York, 1956), p.2083; n.141 *Ibid.*, p.2085.

18 Eddington, *Space, Time, and Gravitation*, p.161, cited in Celestine N. Bittle, O.F.M.Cap., *From Aether to Cosmos*, The Bruce Publishing Co., Milwaukee, 1941, p.445.

But Eddington would not go along with Tipler on his physicalism, his reduction of everything to physics. Beyond these considerations, Eddington gave some memorable warnings to latter-day spokesmen of an already outmoded mechanistic philosophy. He simply called it preposterous to assume that the spiritual world of man could be ruled by the laws of chemistry and physics. On the basis of unfailing mechanism as the supreme law of existence, it would be impossible to explain, he remarked, why a boy can fail in his arithmetic. Close and intimate as might be the connection of brain

and mind, their connection will become "irrelevant as soon as we consider the fundamental property of thought that - it may be correct or incorrect. The machinery cannot be anything but correct."(146) And with an eye on the crude materialistic wing of mechanists he added: "Dismiss the idea that natural law may swallow up religion, it cannot even tackle the multiplication table singlehanded."(147)

Stanley L. Jaki, *Brain, Mind and Computers*, Herder and Herder, New York, 1969, p.63. n.146  
*Science and the Unseen World* (New York, 1930), p.57, n.147 *Ibid.*, p.58.

19 Bittle, *Op. cit.*, pp.452,453.

The Holy Ghost Father, Henry Korin is critical of the Capuchin Father, Celestine Bittle, for abandoning the traditional hylomorphism (form and matter) of Aristotle and St. Thomas, in favor of his own "hylo-systemism," which Father Korin considers a compromise with contemporary science. Father Korin thinks, and I concur, that with the proper distinctions, hylomorphism is still perfectly valid today. But with that *caveat*, I think Father Bittle is still useful, because he goes into the science of the day in more detail than most Catholic authors.

20 In his first book Tipler called his Omega Point Theory, FAP, "final anthropic principle." Hugh Ross quotes from a somewhat vulgar but vivid review: "What should one make of this...FAP? In my not so humble opinion I think the...principle is best called CRAP, the Completely Ridiculous Anthropic Principle." (Gardner, Martin, AWAP, SAP, PAP, and FAP," in *The New York Review of Books*, 23 May, 1986, No. 8, pp.22-25, Ross, p.136.) The caption that the *New York Times Book Review* chose for Tipler's first book was: "I think therefore the universe exists." (Jaki, *God and the Cosmologists*, p.190) This reminds me of the Transcendentalist Margaret Fuller's famous saying, "I accept the world." To which Carlyle replied; "Gad she'd better." (Thomas R. Ryan, C.P.P.S., *Orestes A. Brownson, A Definitive Biography*, 1976, p.340.)

21 Tipler, pp.256,257. Tipler admits that his "Heaven" is most like that of Mohammed, but he out-Mohammeds Mohammed: "...about two thirds of adult humans experience at some point in their lives an intense passion for a member of the opposite sex which is not reciprocated: this is the phenomenon of unrequited love. The Omega Point has the power to turn this passion into requited love in the afterlife. (p.257)

22 It would be too much of a digression to answer Kung\Tipler, but Fr. Karl Rahner makes the same false claim concerning the teaching of Vatican II, which I answer in more detail in my *They Fought the Good Fight* (1988), pp.360-363.

23 Tipler, p.340, Notes to Preface, n.3. Jacques Monod also feels the same way about Teilhard de Chardin. See *Chance and Necessity*, 1972, pp.31,32.

24 Orestes A. Brownson, "Tyndall's Address," *Brownson's Quarterly Review*, January, 1875.

25 Peter D. Fehlner, F.F.I., *In the Beginning., Christ to the World*, VolumeXXXIII (1988) Number 2, Rome, pp.153,154.

26 *L'Osservatore Romano*, January 31, 1938.