

## CHAPTER 6

### Shaping Eschatology within Science and Theology

#### 6.1 Introduction

According to Berkhof (1958:666), over the years scholars have applied various names to the last locus of dogmatics, of which *de Novissimis* or *Eschatology* is the most common. As such, the name “eschatology” is based on specific passages of Scripture that speak of “the last days” - *eschatai hemerai*, Is 2:2; Mic 4:1; “the last time” - *eschatos ton chronon*, I Pet 1:20, and “the last hour” - *eschate hora*, I John 2:18. Although these expressions sometimes refer to the entire New Testament dispensation, they still embody an *eschatological idea*. Indeed, when one speaks of eschatology, one has in mind facts and events that connect with the second coming of Christ. As a result, this marks the end of the present dispensation which will, in turn, usher in the eternal future.

As derived from the Greek word, eschatology has traditionally meant the study of the last things. Accordingly, it has dealt with questions – from a Biblical view - on the consummation of history and God’s completion of His work in the world. However, from a scientific point of view, according to Polkinghorne (1998:29), eschatology concerns itself with what one can learn, and extrapolate out of present physical process. Unfortunately, when cosmologists peer into the

future through extrapolated information, their story is one of eventual futility rather than one of hope and fulfilment. As such, the principal role of science is to pose to theology the question: What meaning there could be in the hopeful belief - according to the Christian view of eschatology - that “in the end all will be well”.

Generally though, when it comes to the scientific study of eschatology Jackelén (2005:203) states that, the relationship of eschatology and science has hardly been a topic of discussion until now. Furthermore, eschatology is more often than not only given in bibliographies at the end of encyclopaedias’ articles or in monographs. Thus, one assumes that whenever eschatology has sought dialogue partners outside its traditional field (of theology), it has generally turned to philosophy. Indeed, even occasionally to social ethics and to ecology, but hardly ever to the traditional natural sciences (see also Ratschow 1982: 361-363; Greshake 1995:398).

Traditionally, according to Jackelén (2005:199), questions about the reign of God, death and resurrection, God’s judgment and eternal life have belonged to eschatology. Nonetheless, theologians too often speak rather objectively of the end or consummation of the world, and they generally do this without seriously asking what the future of the universe is likely to look like from a scientific perspective. However, some like Moltmann (1973:137) have attempted this, and envisage what Jackelén (2005:203) calls, a *cosmic eschatology* i.e. an eschatology that includes nature. The thinking behind this view is that

eschatology must take nature into account when dealing with end-time scenarios - *although, usually, non-religiously*. Further, Jackelén does correctly point out that eschatology and scientific questions do show points of contact first and foremost in cosmology. But, in her view, theology still does not pay enough attention to the paradigm shift from the closed cosmos of past studies, to the open universe of modern times (see also Koyré 1994). However, there have been recent attempts by modern scholars to find common ground between these two seemingly diverse subjects (see Polkinghorne and Welker 2000). As such, the following models present just two of many such attempts by scientists and theologians to find this commonality between these two fields of study.

## **6.2 A Scientific Model of Eschatology**

One could ask: Is it at all possible to speak of something which might resemble a scientific eschatology? From a purely scientific view, some like Tipler (1988) and Dyson (1979) believe it is possible.

Given this, both Tipler and Dyson believe that eschatology should also be classified as a branch of physics, and not as a branch of theology alone. Tipler (1988:12) for example, claims that the likelihood of the existence of God, of human free will and of eternal life after death can be proven by pure physics alone. He believes his model, *The Omega Point Theory*, provides him with the proof that God exists. The Omega Point theory is similar (with variations) to the

model invented by Teilhard de Chardin (1975:268-272) to describe the ultimate maximum level of complexity-consciousness, considered by him as the aim towards which consciousness evolves. For Teilhard de Chardin, rather than finding Divinity "in the heavens" he held that evolution was a process converging toward a "final unity", or the Omega Point, identical with the *Eschatos* and with God. According to Vernadsky (1945), the planet is in a transformative process, metamorphosing from the *biosphere*, that is, the sphere of human habitation, into the *noösphere*, that is, the sphere of human thought or consciousness, to the *christosphere*, where Jesus Christ is everything in everywhere.

As such, Tipler's eschatological model states that life is essentially an accumulation of information. As a result of this accumulation of information, and life's path towards the Omega point, it has to pervade and finally dominate, according to Tipler, the entire material universe. The Omega point itself, however, will be a place of maximum accumulation of information, and therefore it will be immanent as well as transcendent with relation to each point in space-time. Because of this, the Omega point will have the properties of personality, omnipresence, omniscience, omnipotence and eternity. Thus, theoretically, the universe exists only when the Omega Point also exists in this universe, and in a sense, decides reality.

Although it seems that Tipler tries not to equate the Omega Point Theory with Christianity, he does try to show that it harmonises with the basic ideas of

almost all religions. He also often refers to the theology of Pannenberg (see Tipler 1988: 305-327). Furthermore, Tipler tries to show that:

1. The universe must be fated to collapse in on itself;
2. Everything in the universe will eventually be incorporated into a single great computer;
- 3 This computer, essentially a universal mind, will be able to prolong its subjective experience to infinity as it approaches the final singularity.

Although the author has addressed Tipler's model as clearly one of the more expressive post-modern views being put forth by science, one does find it a little difficult to harmonise his model with the Biblical idea of the end-times, and the life to come. Although he uses words like omniscience, immanence and transcendence, in the author's view, his model has seemingly nothing to do with the Biblical idea of God or His qualities. For example, when it comes to the idea of the resurrection, Tipler (1988:220-227) states that one should see the resurrection, in his view, as "an exact replica of ourselves, simulated in the computer minds of the far future". Accordingly, the next stage of intelligent life will be machines that process information. For Tipler, the extinction of humankind is *a logically necessary result of eternal progress*. Thus theoretically, in the distant future, a computer capacity will be available that would enable the perfect simulation (emulation) of all possible variants of the world and thus, of the entire visible universe of all times. As such, a resurrection of the dead will

occur, “when the computer capability of the universe is so large that the capacity needed to store all possible human simulations is an insignificant fraction of the entire capacity”. Thus, the physics of immortality does not concern itself with “immortality”, or even the “Biblical idea” of a resurrection from the dead. Rather it concerns itself with the spontaneous reconstruction in the form of emulations: as if, “in the last moment” someone would build a super computer, in which all images of human beings are as holograph programmes.

In a lightly worded defence of Tipler’s model, Pannenberg (1995:313) states that at first glance, Tipler’s model might seem a little far-fetched. However, one must consider that Tipler seriously defines life as an information process. Secondly, one must take his broadly conceived notion of the computer as an information processing entity, far beyond the machines that one currently calls computers used everyday. Thus, according to Pannenberg (1995:314), the Christian hope in the future is not dependant on the portrayal of this earthly corporeality being transferred to another life that is based on different processors. Furthermore, the hope of a resurrection does not rule out that God’s power of life, which has been manifested in Jesus Christ, does govern the universe in ways that are so far unknown. As such, “we are not prohibited from making surmises, even if we do so by means of physics,” according to Pannenberg (1995:314).

In contrast to Tipler, Dyson (1979: 103) speaks neither of resurrection nor of eternal life. By using quantitative arguments, he wishes to explain that life and intelligence can survive without limits, and that communicating information is possible despite constantly increasing intergalactic distances. Fortunately, Dyson is conscious, unlike Tipler who mixes “science” and “science fiction” in his reflections, but he does not consider this too problematic, as long as the science is precise and the fiction is probable. For example, if one links consciousness to molecule substances, then life will stop as soon as the necessary supply of free energy is consumed. If, on the other hand, as Dyson (1979:453) assumes, *consciousness* depends merely on the structure of the molecules, then life can seek all kinds of practical embodiments, such as an interstellar black cloud or a sentient computer, as in the model of Tipler. Indeed, Dyson sees the most probable form of future life in just such a cloud-type collection of dust particles, which, as carriers of positive and negative charges, organize themselves and communicate among themselves by using electromagnetic forces. The greatest problem with this model, according to Jackelén (2005:206), lies in the fact that the waste heat produced by the metabolism of life, cannot radiate away into space quickly enough. In defence, Dyson’s solution to this difficulty is hibernation: The metabolism occurs periodically, so during constant radiation of waste heat, active phases alternate with phases without metabolism. In this way, an unlimited survival is possible with finite energy, and subjective time is infinite.

In principle, Dyson (1979:459) says that even in an ever-expanding universe, infinite communication of information at finite expenditures of energy is possible. He further states that the amount of energy that the sun radiates in eight hours, is already enough to keep alive indefinitely a society with the degree of complexity that characterises current human development. Although Dyson stresses that, despite the many equations he lists, he is unable to present an ultimate mathematical proof for these claims, he is however, optimistically satisfied with his results. He states that, “I have found a universe growing without limit in richness and complexity, a universe of life surviving forever and making itself known to its neighbours across unimaginable gulfs of space and time.” Thus, in his later work, he confidently says that science offers a solid foundation for a philosophy of hope (Dyson 1990:117).

Although these models do sound probable scientifically, one could ask the question: In the face of the immensity of the universe, is eschatology not simply an anthropological particularism that has grown immeasurably overtime? From a purely cosmological perspective, Weinberg (1988:154) states that much in eschatology appears as an absurd exaggeration of how significant this earth is, which according to him “is just a tiny part of an overwhelmingly hostile universe.” Weinberg continues: “The effort to understand the universe is one of the few things that lifts human life a little above the level of farce, and gives it some of the grace of tragedy.” Monod’s (1972:172-180) words are even more disillusioning, he thinks that humans must finally awaken from their age-old

dreams and recognise their complete desolation and their radical alienation. Humanity, according to him, needs to recognise that it is alone in the unfeeling immensity of the universe out of which it emerged only by chance. Even though these conclusions drawn from cosmological theories are highly debatable scientifically and theologically, they nevertheless help one to understand how unnatural, and even how presumptuous, the postulate of a valid eschatology can seem from the cosmological perspective. In saying this, the author has proposed the hypothesis throughout this work that the only possible solution to the debate surrounding eschatology is to view it *Biblically* and *Theistically*.

### **6.3 A Theistic View of Eschatology**

As stated, the author's hypothesis is simply that a Biblically based theistic world-view is the most viable way that one can possibly and rightly come to terms with the many conflicting views that abound about creation, and humanity's end. In this light, Polkinghorne (1998:114) states that one of the important implications of a theistic view of reality is that it assigns total meaningfulness to the universe, and its history. The claim is that the world is truly a cosmos and not, in his view, "a tale told by an idiot". This is because God's will and purpose, and God's assurance of an eventual fulfilment, are behind all that is happening. The most obvious difficulty in establishing this claim is the fact of death. Indeed, not only do all human lives come to a mortal end with much personal business and spiritual growth still unfinished and incomplete, but modern cosmology also

assures that the universe has condemned itself to die over a timescale of tens of billions of years. The question is: How do these views from the natural sciences conflict or agree with the Biblical account of the end times.

Before one can answer this question, one needs to understand, according to Polkinghorne and Welker (2000:3), that both science and theology, speak about unseen realities during their rational discourse. However, it was stated in the beginning of this work that both science and theology view reality differently, e.g. theology recognises both an ordinary and an ultimate reality, with God being the architect of both - a *Biblical world-view*. Science on the other hand holds that there is a reality which lies beyond the physical space-time universe - a *Quantum Physics world-view*.

Thus in the author's view, whether as a physicist one speaks of unseen quarks and gluons, or as a theologian, one speaks of the unseen reality of God, both are dealing with an element of faith in their studies. It is this element of faith that one needs, in order to study the demanding topic of eschatology, from both a scientific and a theological belief. However, there is one more aspect of eschatology that needs discussion, if one hopes to understand eschatology's relation to reality, namely, its relationship to time and eternity.

## **6.4 Time and Eternity: It's Relationship to Eschatology**

In considering all that has been said up to this point, one realises that the idea of time and its relation to eschatology and eternity is a much-neglected subject.

Time - as one understands it - was created by God, it is part of the creation.

However, the created universe consists of a physical or material world, and a spiritual realm - the latter called in the New Testament "the heavenly places."

As a result, one would consider time in the heavenly realm, to have quite different properties than one would usually think of - seeing it is eternal - in regard to the physical, material world. Given this, humanity was created to live in both worlds - the material and the spiritual - at the same "time". Thus a study of time and eternity is necessary, if one desires a clearer understanding of eschatology, and the life to come.

### **6.4.1 The Complexities of Time**

Before one can study time from a religious and scientific perspective, one has to first admit that God is outside of time, i.e. time does not control God. He is an eternally self-existing, self-defining, living Being. Since He created time, one can think of past, present, and future as eternally present before His eyes. Craig (2001:217) puts it thus, "Since God never begins to exist nor ever ceases to

exist, it follows that God is *omni-temporal*. He exists at every time that ever exists; that is, He endures throughout all eternity”.

Consequently, God's actions in eternity can affect past, present, and future (as experienced by humankind) simultaneously. Thus, a certain action of God completed in the past can have continuing and lasting results. Indeed, other activities of God, such as His expressions of grace and mercy towards all, continue day after day. As a result, certain events, such as the "appointed" hour one dies or the Day of Judgment, are fixed in the future, predetermined by God. As a result, unlike God, humankind is - to a degree - controlled by time.

One might now ask the question: Is time eternal, since it was stated that this age would end? Scripture is clear that there will be a final consummation of all creation (see Is 2:2; Mic. 4:1; I Pet. 1:20 I John 2:18).

#### **6.4.2 Time, Death and Eternity**

Further to the above, one may also ask: What is death, and how is one to define it according to time? Various passages in Scripture speak of physical death; that is, cessation of life in one's physical body. Indeed, Ecclesiastes 12:7 refers to death as separating body and soul (or spirit). In the New Testament, James 2:26 also speaks of death as the separation of body and spirit: “As the body without the spirit is dead, so faith without works is dead”.

What one is dealing with here is the cessation of life in its familiar bodily state. However, this is not the end of existence. As such, one must not think of life-and-death as existence and non-existence, but rather as two different states of existence. Death is simply a transition to a different state of existence, and not, as some tend to think, extinction. But, if physical death is simply a transition from one mode of existence to another, how is time, as one understands it in this existence, related to the next existence? Or will time cease to exist, just as life in the physical body ceases to exist?

According to Craig (2001:218), , which implies, creation out of nothing (see also Barrow & Tipler 1986:442). As such, Hawking (1996:20), who was a proponent of infinite time, now acknowledges that, “almost everyone now believes the universe and *time itself* had a beginning at the big bang.” Seemingly, this consensus lends strong support to the view that neither events nor time, existed before creation. As Parks (1981:112-113) states “It is deceptively easy to imagine events before the big bang..., but in physics there is no way to make sense of these imaginings.” One might ask: What then is one to make of these findings as it relates to eschatology and the end of humanity?

Before one can successfully answer this question, one needs to ask: If time is finite and began at the big bang, what existed before time, or what state did God exist in before time began?

As already stated, with the creation of the universe, time began. Subsequently, God entered time at the moment of creation in virtue of His real relations with the created order (see Craig 2001:233). As a result, one could speculate that not only is God *timeless* without the universe, but He is now also *temporal* with the universe. Indeed, theoretically, there seems to be two aspects of God's life, a timeless phase and a temporal phase. But, according to Craig (2001:233), logically this is confusing, since to stand in relation of *earlier than* is by all accounts to be temporal (see also Leftow 1991).

The question is: How is one to escape this seeming antinomy? One possibility is to look at time from the view of not being divisible, a sort of undifferentiated time. Craig (2001:233) refers to it as *Amorphous Time*. Thus, the argument would then be compatible with the existence of amorphous time, before creation. Indeed, one could say: God existing alone without the universe, would exist in an amorphous time before the beginning of divisible time as it is known (see also Lucas 1973:311-312; Padget 1992:122-146; Swinburne 1993:204-222).

Such an understanding of God's time before creation seems attractive, as it enables one to speak literally of God existing before creation. It also seemingly avoids the problematic claim that God has endured through infinite time prior to creating the universe. It also confirms the claim from Scripture that one will live forever, even though one dies physically in the natural realm. Thus, the fact of a

*new creation*, with a timeless state of being, means the Christian has a hope and a future that will doubtless be spent timelessly in the presence of God. One can say that this is the final consummation of death, leading to an eternal life resurrection.

Despite all said thus far, one is still left with the problem of reconciling the views of science and theology with regard to creation and the end-times. In the following section these views will be explored and consensus reached, where possible, on how each view interacts with the other.

## **6.5 Reconciling the Two Views**

Despite attempts by believing scientists, philosophers, and theologians to resolve the differences between the Christian faith, and the account that the natural sciences give of the evolutionary history and structure of the world and the universe, they have had only minimal success. Stoeger (2000:19) argues that science with its contemporary scientifically and technologically oriented culture, strongly challenges Christian and other religious beliefs when it comes to visions of the afterlife, resurrection, and *the new heaven and the new earth*. Many in the scientific world consider any meaning or hope in an eventual destiny tied to such Christian conceptions to be pure illusion, without any shred of real foundation in reality. Furthermore, they say that it has no support from anything in experience. Many in the scientific disciplines believe that these conceptions

are simply projections of one's own yearnings for meaning and significance, or symbols embedded in the universe of cultural meaning one has settled to live a happy and productive life. Thus, in their view, they have little or no bearing on what the eventual fate of humanity and that of the universe will be. From all the signs one can gather from the neurosciences, biology, physics, astronomy, and cosmology, death and dissolution are the final words. There is no scientifically supportable foundation for the immortality of the soul, bodily resurrection after death, or a transformed new heaven and earth – unless one accepts the models of Tipler and Dyson.

However, to balance this debate, Peters (2001:125) who has worked for nearly two decades in the science-theology dialogue, states: When theologians deal with loci such as creation or anthropology, it does seem that success between current science and doctrinal understanding is within reach. Seemingly, quantum physics does offer openings to a non-mechanistic understanding of the world as God's creation. Big Bang cosmology also seemingly reinforces the temporal and historical picture of creation drawn by theology. Furthermore, what one learns in genetics and the neurosciences also tends to add to the Christian understanding of the human person as an embodied being. Thus consonance appears to come easy in these areas. However, this is not the case when it comes to eschatology. Here one finds only dissonance, not consonance. Why? One could answer as follows: Because every scientifically projected scenario, leads to a future of the physical world that will destroy all known life. With no life

left in the cosmos, what sense does it make for theology to speak of resurrection to eternal life? Of all the Christian teachings, eschatology appears to be the most out of sync with the world as science knows it. Tanner (2000: 222) states “If the scientists are right, the world for which Christians hold out hope ultimately has no future.”

As a result of the above scenario, it appears that every aspect of scientific cosmology points to a negative future for life on planet earth or even for the cosmos as a whole. Today, the earth is threatened by an onslaught from asteroids and comets; and a major impact could destroy life, as it is known. In five billion years, according to Peters (2001:125), it is predicted that the sun will have exhausted its inner core of hydrogen, expand into a red giant, envelope the inner planets, and destroy planet earth. The universe itself will eventually evanesce due to the law of entropy or, less likely, collapse into a fiery crunch and final conflagration. Under every scientific scenario the life-generating capacity of the natural world will end. No scientific scenario looks like the Christian vision of a new heaven and a new earth.

As such, science accurately depicts the fate of the world when left to its own devices. However, what it leaves out according to Tanner (2000:222), is Divine influence to divert, or overcome, what one could legitimately expect to occur, if the world was left to its own principles of operation.

Thus, a theologian might argue that the world will not come to the expected end envisaged by scientists, because of the continuing influence of a good, life-affirming God in world processes. A theologian could also claim that the world will be led beyond the destruction to which it is heading of its own accord, by a God who, as Christians affirm, can bring something from nothing, and life from death. God might indeed use the old world's destruction, as the scientists describe it, as a purgative means to a new heaven and earth beyond the reach of the old world's own capacities. Destructing the world then, becomes in that case, a kind of world crucifixion that signals the death of death through Divine power.

Furthermore, Tanner (2000:221) states, that by taking this type of strategy of response, a future-orientated eschatology escapes any direct challenge from scientific end-time scenarios. These scenarios or the reasoning that leads to them is simply incorporated, with suitable theological modifications, within the same barely modified eschatological perspective from which the theologian started. The basic shape of the eschatological perspective remains the same. At most, scientific prediction of a dire future encourages the trend in contemporary Christian eschatology away from optimistic assessments of what one can expect from natural processes apart from God's help.

As such, the consummation of the world is not brought about by the world. One might say that a gap exists between the results of world processes

and the world's consummation. Thus, only God with the power to reverse those results can bridge this gap. Only God then has the power to bring what is otherwise unexpected into existence; for example, a world that knows neither loss nor suffering (see Moltmann 1996). One could even say a grace-motored continuity, rather than a continuity of purely natural processes, spans the world as one knows it and the world to come. Presently, the world moves without any great interruption to its consummation but it does so only in virtue of Divine powers, not its own (see Rahner 1973:273-289).

Despite the fact that the sciences of biology, physics, astronomy, and cosmology do give one an idea of humanity's fate, that is death and dissolution, it is not the final destination of humanity, or creation as a whole. Paul the Apostle clearly states in Romans 8: 18-23:

I consider that our present sufferings are not worth comparing with the glory that will be revealed in us.  
The creation waits in eager expectation for the sons of God to be revealed.

For the creation was subjected to frustration, not by its own choice, but by the will of the one who subjected it, in hope that the creation itself will be liberated from its bondage to decay and brought into the glorious freedom of the children of God.

We know that all creation has been groaning as in pains of childbirth right up to the present time.  
Not only so we ourselves, who have the first-fruits of the Spirit, groan inwardly as we wait eagerly for our adoption as sons the redemption of our bodies.

In these verses, Paul speaks of a twofold groaning of creation (v. 22) and of believers (v. 23). The *creation* i.e. animate and inanimate nature is subject to suffering and physical catastrophes, because of human sin (v. 20). As a result, God has purposed that nature itself will be redeemed and re-created. There will be a new heaven and a new earth, a restoration of all things according to God's will (cf. 2 Co 5:17; Gal 6:15; Rev 21:1, 5), when God's faithful children receive their full inheritance (vv. 14, 23).

The question one faces though is: On what basis can one construct a theology of the eventual future? According to Peters (2001:126), the answer is clear; one must root a theology of the future in the Easter Resurrection of Christ. Stoeger (2000:19) puts it this way:

There is no scientifically supportable foundation for the immortality of the soul, the resurrection of the body and the person after death, a transformed new heaven and new earth... For Christians these have their basis in the revelatory events of Jesus' life, death and resurrection, and all that flows from them...

One could state it thus; what science can do is give information about the nature of the world to be transformed. But one must then rely on independent theological resources for the promise that such a transformation lies in the future.

Polkinghorne (2000:30) speaks forcefully to this, he clearly puts forward the following:

Putting it bluntly, why did God not straightaway create a world free from death and suffering, if such a world is an eventual possibility? The Christian answer, it seems to me, is that the new creation is not due to God wiping the cosmic slate clean and starting again. Instead, what is brought about is the Divine redemptive transformation of the old creation. The new is not a second creation *ex nihilo*, but it is a resurrected world created *ex vetere*. Involved in its coming to be must be both continuity and discontinuity, just as the Lord's risen body bears the scars of the passion but is also transmuted and glorified.

In referring to the empty tomb, Polkinghorne (1994:164) as a hint of the total transformation of everything created says:

Hence the importance of the empty tomb, with its message that the Lord's risen and glorified body is the transmutation of his dead body. The resurrection of Jesus is the beginning within history of a process whose fulfilment lies beyond history, in which the destiny of humanity and the destiny of the universe are together to find their fulfilment in liberation from decay and futility.

Alternately, Peacocke (1993:343) inclines to keep eschatological speculation to a minimum. He stresses the utter faithfulness of God and the Christian hope of remaining eternally "in God". Barbour (1997:152) on the other hand, seems to incline more to a process view of eschatology, summarising thus the ultimate value of the created order:

Every entity is valuable for its continuing contribution to the life of God. The values achieved in this world are preserved in God's eternal life, and this is part of their enduring significance and permanence beyond the flux of time. In addition, some entities, such as human beings, have a (further) future value, if as conscious individuals we survive death.

Although the full hope of process eschatology seems unclear, there is at least the expectation that one's life is meaningful, because preservation is everlastingly in God's experience, according to Barbour (1997:241).

Polkinghorne (1994:163) takes this view much further in terms of the Biblical hope of resurrection. In his view, it is not simply the survival of an immortal soul, but resurrection of the human person, as a new embodied being.

The Christian hope is of death and resurrection. My understanding of the soul is that it is the almost infinitely complex, dynamic, information-bearing pattern, carried at any instant by the matter of my animated body and continuously developing throughout all the constituent changes of my bodily make-up during the course of my earthly life. That psychosomatic unity is dissolved at death by the decay of my body, but I believe it is a perfectly coherent hope that the pattern that is me will be remembered by God and its instantiation will be recreated by Him when He reconstitutes me in a new environment of his choosing. That will be his eschatological act of resurrection. Thus, death is a real end, but not the final end, for only God Himself is ultimate.

Ward (1998:215-216) adds to this picture:

It might even be that God's own nature, as love, is only fully realised by creating other conscious agents with whom God can share in fellowship, by giving, sharing and receiving a love that binds Creator and creatures together in a community of spiritual being. If that is so, it is natural to hope that such a community might make it possible for every created member of it to share in knowledge of its final fulfilment in God. In other words, the love of God might require that fulfilment of creation is not only experienced by the one consciousness of God, but shared in a communion of love that God brings to completion. In this way the existence of a resurrection world, however exactly it is envisaged, comes to seem a natural hope for a created cosmos.

In concluding this section, one realises that there are several reasons for the current attention paid to eschatology; one is the rapid development of knowledge. It seems that as technology increases and the scientist and theologian is able to know more, many of the issues surrounding eschatology become obscure and difficult to deal with. At times eschatology, according to Erickson (2001:1160), has become a topic of debate, resulting in accusations and acrimony among scholars. Yet the Bible is clear about what the end entails, whether it concerns the believer or the non-believer. Clearly, according to Barrett (2004:158-159), there is much in the eschatological picture that is speculative, but it is reasonable speculation in keeping with the axiom that the *Lord God perfects the creation with utmost love*. In saying this, Weder (2000:202) aptly sums up the views of eschatology as follows:

The coming of the kingdom of God, finally, is related by the parables of Jesus to the phenomenon of growth. This is perceived as another trace of creativity, which nourishes faith in the creative God. There is a family resemblance

between the creative process of growth and the creativity of the kingdom to come. The phenomenon of growth points to two fundamental conditions of the universe described by natural science: the process of building up higher complexity in open systems and the openness of the universe, which is protected from chaotic deliberacy or chaotic indefiniteness by strange attractors and the capacity to self-organisation. Although the world to come cannot be grasped as a prolongation of this universe, although this universe is bound to finitude, its openness, ordered by attractors, may be seen as a metaphor of a freedom so attractive that it allows hope for the final creation of a new and free world of everlasting peace.

This theological conclusion grounds ones hope that God will break the limits of the mind's dependence on the body - a dependence that is ubiquitous in the present experience of the world. The Christian hope is that, by His grace, God will enable the continued existence of the self, with a non-physical body after the death of physical bodies. It also leads to hope that, although the universe shall surely be uninhabitable for human subjects at some point in the finite future, God will create "a new heaven and a new earth" in which human subjects can remain eternally in the Divine presence.

In the following section, the author will sum up and conclude, what has been put forth throughout this thesis regarding reality, world-views and their relationship to science and theology.

## 6.6 Summary of Argumentation

Firstly, the argument in the beginning of this study was clear that for many decades, science and theology have accused each other of arrogance in their claims to know the truth. However, there is now a growing realism and humility about the limits of the two disciplines. Because of this, often, many see both disciplines as complementary ways of seeking to understand the world. Thus, each one's mental models of reality are inevitably incomplete in their respective disciplines. Therefore, in the author's view, there is justification to combine science and theology to further the general understanding of what makes up reality.

Furthermore, for one to have a correct understanding of reality, a study of creation is to be the starting point, regardless of whether it is from an evolutionary or Biblical point of view. The author was confident that by engaging the different viewpoints proposed by namely, science, philosophy and theology, one would be in a much better position to argue and propose a theistic belief on reality.

To do this, the author set up a framework within each chapter to deal with specific views related to both disciplines. To do this successfully, the common frame of reference between each was presented and researched. Furthermore,

the differing world-views of each were also introduced, and where fitting, commonality sought and explored. It was put forth that one can only come to a reasonably clear understanding of what makes up reality, if one understands the beliefs and views of each on this.

It was also clearly stated that doubtless, the relation between science and faith is complex, and unfortunately, there is a tendency among scientists to deny faith as a way of solving issues. However, agreement was reached in consultation with the respective scholars in their chosen fields, that in recent years, there has been a growing interest in exploring how science and theology relate. Indeed, many are openly speaking about “a new convergence” in the disciplines, opening the way to new insights and understandings about reality. It was put forward that what distinguishes these world-views is their acknowledgement or denial of an intelligence and purpose beyond all expressions of sensed reality.

From this view, the author argued that theism is a most viable world-view, when interpreting metaphysical ideas of the world. Furthermore, a presentation was made that creation from a theistic world-view, must thus naturally follow from this argument. Also, it was put forth that for many centuries, the accepted norms on the idea of creation were taken from the Christian world-view. However, as science has progressed in its studies of creation, it has no doubt encroached many of its findings on the Biblical world-view of creation. As such,

this has now started throwing doubts on the validity of the Biblical idea of creation as a viable world-view. Following this, the author showed that pressure is put on modern theologians to produce counter argument to scientific findings from Scripture, which doubtless, has caused the relationship between science and theology to be marked by increasing mutual alienation. Positively, it was established that many scientists who study nature and its impact on humanity, are rethinking many of their proposed evolutionary views, and are expressing these views in academic journals around the world. Also, during this century alone, there has emerged a series of efforts to bridge the gulf that has developed between the two disciplines in this area.

Furthermore, it was determined that any view that contradicts itself or destroys itself in the process or act of affirming itself, is self-defeating and false and only theism is actually undeniable. As such, the author also established throughout this thesis that theism offers an argument with the undeniable premise that leads one to recognise the existence of an infinitely perfect and powerful Being. Indeed, any world-view that cannot prove to be true simply based on the premise that it is non-contradictory, must be false. On this basis one could then confidently state that by implication, this would mean that theism, the only remaining non-contradictory view, would be true by the process of falsification.

To further expand on this, the author undertook a case study of Darwinism, to start the process of showing that theism is a most Biblically legitimate view on creation. Darwin, it was argued, was aware that his theory of evolution had some problems, but in all fairness to Darwin, he did base his theory on three reasonable assumptions, namely: Hyper productivity, Variability, and Natural Selection.

As a result, evolution does inevitably matter to theology. Thus, Darwin's theory of evolution by natural selection is important and one should study it from a Biblical perspective, as some of Darwin's theories do not, as such, oppose Scripture. It was furthermore shown, that if one interprets evolution theistically, it could even strengthen one's understanding of the extent of Divine creation. Based on this the author established that many in the science-theology dialogue have turned their attention precisely to these kinds of issues.

As a result of these statements, the author of this thesis did place on record that the work presented throughout, was prone to subjectivity, as the author wrote from a strong Christian viewpoint. Although the author did dialogue with views that were in conflict with theism, the author did compliment each scholar's view, especially where they contributed to an overall understanding of reality.

The study then turned to the deterministic view in the light of evolution, and evaluated it specifically from the post-modern mindset. The author then presented ideas of some scholars who suggest ways in which traditional ideas of God's role can be reformulated to recognise both law and change concerning reality. The result of this study showed that arguments for determinism as a methodological assumption of science is unconvincing. There is no concrete support yet from the specific sciences concerning determinism; as impressive as it might seem on the outside. The progress of physics, clearly the most advanced science so far, has led it in the opposite direction

A challenge to the Open-Theism argument for determinism was presented, as this was one of the more controversial post-modern views being proposed today about reality. As a result of this case study of open theism and its deterministic view of reality, it was established that it fails as a viable theistic world-view. As such, it was shown that God knows in advance every word that one speaks before it is even spoken. Also, God predicts naming certain individuals long before they're born, including the places in specific kingdoms that are yet in the future.

Further to this, a study of God's providence and its relationship to miracles, prayer, personhood and sin was also examined. In the process the question was asked: If God has settled His plans, and He will do what He is going to do, then does it really matter whether one prays or not? The answer

given was that God does require people to work in partnership with Him. As a result, God does require His people to pray for things to come to pass.

The issue of healing was also addressed and the conclusion reached was that no empirical data, in the author's view, exists, to counter the claims of the scientific world that healings are not common today. Their test cases showed no significant healings in people that prayed or were prayed for. As a result, a case was made for divine healing from Scripture, but the question remained unanswered as to whether God heals when people pray. Because of this question, it was put forth that it is the believer's conviction that he or she is in the hands of a wise and powerful God, who will accomplish His purposes in the world - whether it be through the answering or not answering of the prayer for healing or for any other need. Based on this, it was put forth though that what Christians do receive when they pray is always God's best for them long-term, even when it is a short-term disappointment.

Regarding aspects of creation, it was put forth that the new physics of creation leave no place for the traditional metaphysics of creation, because new cosmological models ultimately explain how the universe *created itself* emerging from nothing at a certain moment. Based on this view, it was shown that many theologians and Biblical scholars, unfortunately, share the view that the Bible should be taken seriously, but not literally, and claim that Genesis really only witnesses to a fundamental and enduring relationship between God and the

world. It was then argued that this view is false, as Scripture conveys religious ideas that one can still accept independent of any cosmology, ancient or modern. It was then put forth, that if the world is in a state of decay, one would need to ask why? The only logical answer to this is the Biblical account of the fall of Adam in the Garden of Eden according to Genesis chapter 3. It was then shown that a correct understanding of the fall of Adam and Eve would lead one to understand better the fallen state of the world and why it is in decay, rather than moving towards perfection as proposed by evolutionists.

The subtleness of the humanistic view of sin argued by some who claim to be Christians was also explored, and it was shown that although their arguments sound very stable, and they might even have a scriptural base to argue from, it is unfortunately a veiled denial of original sin inherited by the disobedience of Adam in the Garden of Eden.

It was argued that any view which dilutes the impact of sin in a fallen world was not an option, and the fallen condition of humanity is very literal. It was put forth that humanity cannot take care of itself, and God had to intervene through the coming of Christ. It was also shown that evolution makes God unnecessary and ineffective, which is very different from the sovereign God described in Genesis.

Research into God's providence and its relation to human freedom and sin was also undertaken, and it was argued that evil in this present world must not be thought of as something God willingly planned, as an instrument of human punishment and education, but rather as something He allows because of human freedom. It was shown that all evil must be seen as a possible consequence of the kind of world God willed to create. Although God certainly knew from eternity the kind of world which would result, because of humanity's wilful rebellion, He also knew from eternity that He would be able to bring all of His plans to pass in His own time. It was also put forth, that God is effectively able to use evil, to bring many of His purposes to pass. Although evil is a product of human freedom and rebellion; from the Biblical point of view it is never presented as something which is frustrating God's plans, and preventing Him from carrying out His purposes in the world. It was shown that God is always in control, despite the present reign of evil, both moral and natural. Although there are still many unanswered questions, clearly, God is in control of creation through His providential plans, and His eventual will for humanity will be realised in the end.

This led to the question of: "What is the Ultimate End of Humanity?" - A question that science and theology have been trying to answer ever since humanity became aware of its own existence. It was established that as technology has increased, many of the issues surrounding eschatology have become obscure, and difficult to deal with. It was shown that at times,

eschatology has become a topic of debate, resulting in accusations and acrimony among scholars. Yet it was also established that the Bible is clear as to what the end entails; whether that is towards the believer or non-believer. Furthermore, it was reasoned that much in the eschatological picture was shown to be speculative, but it is reasonable speculation in keeping with the axiom that *the Lord God perfects the creation with utmost love.*