

Invoking the Ghosts in the Machine: Reassessing the Evolution of Science/Religion Phenomena—Alternative Perspectives

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This is dedicated to Andrew Adams

My knight in shining armour

And

To the memory of Dr. Angela Shalet and Charles Shalet, Esq.

A mother who soared to the heavens and a father who taught me how to reach for the stars

Disclaimer

This thesis started out as a very different project all together, but with the close guidance and a great deal of help and time from my supervisor Chris Deacy (to whom I am incredibly grateful) it was decided that, in light of the decision at my *viva*, that the old project was doing nothing more than holding my back from accomplishing what I wanted to achieve all along. I have therefore removed many of the distracting influences that were 'leftover' from my previous tract, and moved forward with what I feel to be a far more productive and contributory piece of work to this field of scholarship.

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ABSTRACT

This thesis is an in-depth critical analysis of the nature of the science/religion relationship. The purpose of this project is to expose the problems associated with the many fallacies related to these phenomena, and to evaluate the reasons behind certain perceptions. It outlines the damage done through years of misconceiving and misunderstanding the concepts of science and religion, and to address what led to such inadequacies in interpretation, emphasizing the use of insufficient and archaic methodologies. A number of the methodological problems that will be assessed are the following: Chapter One will focus primarily on the issues related to the definition of religion and will evaluate how this was/is a contributing factor in how 'religion' is received and recognised in the academic community as well as in more popular circles. The main emphasis here will be on the false conception that 'religion' is a stagnant concept rather than a dynamic one, and will be examined through an appraisal of its chromatic history. This will be followed by an examination of the primarily Christocentric and Western ideologies that are endemic to this field of study, and will demonstrate how these beliefs are related to the Western construction of 'religion' and are tied strongly to the spread of imperialism throughout the world. Chapter Two will build on these issues, through highlighting the Western conceptualisations of religion and science, especially the erroneous belief that these phenomena are universally shared. Similarly evaluated in this chapter will be a number of other factors: (1) The subjective approaches taken by some scholars who insist on making 'science' sound more like 'religion' through the use of clever machinations. (2) Related to this is the concept of inclusivism, which will call attention to the negative effects that Western biases (in academia) have on non-Western practices, mainly denuding them of their cultural uniqueness. (3) Furthermore, this chapter will examine the over simplification of complex cultural phenomena in academia and will evaluate the inefficacy of certain works in dealing with these phenomena. This will be garnished with a critical assessment of this scholarship and will gauge how years of misinformation and negligence (within the academy) has led to a troubling relationship between science and religion. This will be proceeded by a case-study of the 'scientific movement' known as transhumanism as a means to demonstrate the long lasting and problematic effects that years of misinterpretation has had on the popular understanding of the science/religion phenomena, from at least one perspective. This will be concluded with an examination of the future of this evolution. Evidenced here through the use of SF film, is how transhumanism, because of its relationship to science and religion and its communion with popular transcultural SF ideas, has the potential to become a site for a belief system that translates well cross-culturally and incorporates both of these phenomena.

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Riddles in the Dark: An Introduction

John Hedley Brooke writes that “there is no such thing as *the* relationship between science and religion” (Brooke 1991, 321). He puts one’s understanding of this ‘relationship’ down to the fact that what is believed is nothing more than “what different communities have made of it in a plethora of different contexts” (Ibid). Brooke’s premise is that the western understanding of this relationship is manufactured from a ‘warped’, and in many ways anachronistic, interpretations of what happened in the past (and therefore is not concrete in itself). In light of Brooke’s observations, one objective of this thesis is to set out to examine if this ‘relationship’ is indeed fabricated and whether or not the 21st century understanding of it is erroneous. This will be attempted through asking a few relevant questions like: what is the modern understanding of this relationship based on? Is it accurate? How are scholars dealing with it? Are there methods for doing so effectively and more exactingly? A further function of this thesis is to set out to evaluate the evolution of this relationship through Western history and to assess where the West has gone wrong in relating these two concepts. Also examined will be ways in which these phenomena can be better understood and what the future holds for the evolution of science and religion.

In order to properly come to terms with the science/religion debate and its many associated problems, it is imperative that one has some grounding in the deliberations that are currently circulating throughout the field of religious studies. As ‘religion’ is one of the key conceptual foci in the science/religion debate, one need only to refer to the Bill Nye and Kevin Ham debate to get an idea of the role that religion plays in this rather popular discourse, it is therefore essential that one have some understanding of what it is. ‘Science’ is of course the other, and the same should apply to it. This becomes especially relevant when the popular understanding of science and religion in the West is to see them as two distinct and separate spheres. For instance, this is played out in the works of Richard Dawkins, who although an extreme case, sees religion as an anathema in a logically-ordered-scientific world. That said, regardless as to the treated separation of science and religion they are subliminally lumped together in a field of study that analyses them both together. Furthermore, as the majority of religion/science scholars seem to deal with them both as separate *sui generis* concepts, two examples that come to mind are John Polkinghorne and Ian Barbour, it is important that one possesses a deep understanding of what is meant by ‘science’ and ‘religion’ to avoid problems of such generalisations. To elaborate, if one is to write about a subject such as science and religion one must have a clear idea as to what he/she is writing about, or at least a clear understanding that

the phenomenon known as 'religion' is what it is believed to be, rather than a contrived idea, as is suggested by Brooke.

All of these questions will be addressed throughout this thesis so that a better understanding of this relationship can be realised; especially in relation to Western culture. One of the reasons for this emphasis is that this debate, and questions related to science and religion are quite virulent in the West and are believed by some scholars like Talal Asad and Daniel Dubuisson (to name a few) to be products of Western culture. However, in order to do these assessments justice this thesis must first familiarise the reader with methodologies that take both science and religion as conjoined concepts into account, as well as those that deal primarily with them as separate and individual. This will be achieved throughout the course of this thesis which will be divided into three chapters.

The primary objective of Chapter One is to focus on 'religion' and come to terms with it as a concept. The popular understanding of religion will be closely examined, and religion as a *sui generis* category will be assessed. Furthermore, better methods for dealing with this phenomenon will be considered. This will primarily take the form of understanding religion as a 'cultural activity' rather than an exclusive and isolated concept with its own unique characteristics. This in turn will determine whether or not this latter approach is a better one to adopt when dealing with the science/religion relationship. To begin this journey however it is imperative that the many varying definitions of religion are evaluated. The reason for this is that a great deal of the misinterpretations associated with this relationship may be related to, not only a flawed understanding of these concepts, but the adoption and tacit acceptance of inaccurate definitions. As far as complications related to the definition of religion are concerned, this is something that scholars have been struggling with perennially, and it is still prominent in recent scholarship; one only needs to refer to texts written by credible scholars like Ian Barbour, John Polkinghorne, Paul Davies, and Arthur Peacocke to recognize the many difficulties associated with 'properly' defining religion, especially in relation to science. A theme that resonates throughout these texts is the idea that religion must be linked to a belief in a higher power, a distinctly substantive understanding of religion.

Chapter One will be evaluating the works of a number of scholars who have made their mark through dealing with the problems of definition. A few of the scholars that will be looked at are: Fitzgerald (2003); King (1999); Smith (1982; 1998); Dubuisson (2003). It must be noted that for the sake of this thesis much of the scholarship that will be focused on was produced over the last 20 years or so; one of the only exceptions to this rule is Cantwell Smith's *Meaning and End of Religion*, which was so ground-breaking in the field of Religious Studies that omitting it would do the field and this assessment a disservice. Moreover, covered quite

extensively in this chapter will be the correlation between the West and science/religion phenomena. The reason for this is that, as is stated above, it is the belief of many scholars (especially those mentioned in this thesis) that religion is a wholly western construction. Whether this is the case or not will be evaluated throughout this thesis. If it is found that this has affected how the west relates to religion it may illustrate why science/religion are seen as they are in the 21st century and provide hints as to how they may be viewed in the future. Additionally, this thesis will assess whether the science/religion relationship is unique to the West, and if so, how this has affected the way scholars perceive these phenomena in the rest of the world--mainly referring to works of authors like John Polkinghorne, Arthur Peacocke and others who insist on adopting inclusivity when dealing with other religious beliefs and practices. How this relates directly to the questions on the (science/religion) relationship is that if it were to come to light that 'religion' is primarily a western construct then it is more than plausible to assume that the science/religion relationship has also followed suit; and that this field, which is predominately loaded with middle-class-older-white-gentlemen, may be laden with particular--yet unconscious--Christian biases.

Chapter Two will focus on the dual relationship between science and religion. It must be noted however that in order to do this justice one must first get to the kernel of the definition of science. This chapter will document the changing understanding of science through the ages and how this may have affected its relationship with its ever changing partner in crime 'religion'. The first section of the chapter will give particular attention to the history of the science and religion relationship. It will mainly focus on the problems (as for example typified by Brooke) that may have been caused by many years of misinterpreting the definitions of science and religion, and the jumbling of personal views and opinions with hard core facts. Scholarship that will be examined in this chapter are the works of individuals like Brooke (1991), Harrison (2006), Osler (1997) as well as the other scholars that have been mentioned above. The importance of this relationship will be appraised, and the fact that one is not dealing with static concepts but fluid ones will be illustrated, giving further credence to Cantwell Smith's (1962) statement that 'religion' is in a constant state of flux.

Once the matters above have been assessed this thesis will move onto problems related to scholarship in the area of science and religion. Issues that will be raised are: western idealism--that is putting a Western slant--on how religion is defined and understood in the world; not fully understanding the complexity of both science and religion; problems that may have been caused by an unfamiliarity with the western influence on religion; scholars' inability to recognise their own short-comings, mainly their huge Christian bias (a problem that as we will see is prominent throughout this field of study); and whether or not the categorisation of 'religions' into specific criteria has led to a vast misinterpretation and also a plethora of failed

approaches in dealing with the science/religion relationship. This will be done by isolating specific authors and approaches that are relatively popular in this field. These elements will then be dissected and thoroughly examined, and problems relating to these methods will be raised and identified. Further assessed will be whether or not, and in spite of these difficulties, the approaches taken in this field are the right approaches. This will be done in light of all of the potential and grave issues that may have arisen from years of misunderstanding. This will be 'tailed' with an evaluation of procedures that may be more suitable to this form of scholarship, and a number of these methods will be acknowledged. For example, rather than the theological methodologies that still plague this field of study, using cultural, sociological, and historiographical ones may prove more proficient at illustrating how science and religion are dynamic and fluid cultural concepts rather than *sui generis* ones. A number of scholars that have adopted similar methodologies will be looked at including, Wertheim (1996), Harrison, and Bentley *et al* (2009) to name a few. What will be highlighted further are reasons for choosing these approaches as opposed to the more popular ones, and this will be explained fully.

Additionally, a further assessment on other potential ways of approaching this problem will be undertaken in Chapter Three with a focus on film as well as the cultural/intellectual movements known as transhumanism, as a way to demonstrate a cultural studies approach to the problem. This chapter will take on the above challenge through close evaluation of the problems associated with years of misinterpreting these phenomena, and will examine how these misunderstandings have manifested themselves within popular culture. This will primarily be demonstrating through transhumanism; which, as will be exhibited in this chapter, is an interesting microcosmic representation of the science/religion relationship. Moreover, this relationship will be further illustrated through the medium of film with a focus on popular science fiction. The reason for this is that science/religion is evolving to fit a more technological age, whether this will manifest itself in a new secular 'religion' that incorporates both science and religion, is yet to be seen; however this thesis will examine whether one such possible manifestation of this 'new religion' is transhumanism. The reason for this is that if it can be proven that transhumanism, a cultural movement, has both scientific and religious elements, this would strongly support the claim that religion and science are cultural activities with a dynamic evolution. Furthermore, it may provide us with one trajectory that science/religion phenomena have taken in the 21st century, one that offers a belief system that translates well cross-culturally, a concept that will also be closely examined in this chapter with special attention paid to Japanese popular culture. Finally, through establishing the science/religion connection to a cultural movement like transhumanism and also a popular medium like film, this further exemplifies the need for dealing with science and religion as complex phenomena, rather than reductionist concepts that are so easily definable.

Chapter One: An Unexpected Journey

Getting it Started

The focus of this thesis is to assess our modern relationship with science and religion and how our understanding of them both is reflected in popular cultural mediums like films and video games. However, it is important that we first understand the complexities associated with the terms science and religion as well as their histories. For, as will be demonstrated, it is not as simple as saying that a religion is “Christianity or Islam” or that science is “physics or maths” especially when examining their relationship as that would be suggesting that these are relatively simple and obviously straightforward terms, which is in many ways not only an unfair treatment of them but also an anachronistic one as it neglects to take into account their rather complex history as well as the evolution of the definitions and their meanings through the ages. For example Harrison points out a few of these issues:

Consideration of the historically conditioned nature of "Science" and of "religion" bring to light a number of unspoken assumptions in some mainstream science-and-religion discussions and highlights the need for serious revision of common approaches to this issues (Harrison 2006, 81)

Over the past few decades, however, many historians have expressed reservations about presumed continuities in the history of science. These reservations have been expressed in a variety of ways, but common to them all is a plea against the anachronistic assumption that the study of nature in earlier historical periods was prosecuted more or less along the same lines as those adopted by modern scientists (Ibid, 82).

The points reflected by Harrison above give us a few ideas as to the grave issues that have risen up because of these misconceptions or as is stated by Harrison “unspoken mainstream assumptions” primarily this idea that science and religion have always been how we understand them to be today. Harrison has found this such an issue that he dedicated a number of texts to this problem. It must however be noted that although we will be looking at both terms, one aspect being their relation to one another in the science vs. religion debate, this section will primarily be concentrating on the history and evolution of the term “religion” and the difficulties with defining it in general; and the extensive work that has gone on in the field to evaluate these things. I am merely suggesting that it is best to concentrate at the moment on “religion” as its meaning as well as our understanding of it, as we will see, is rather skewed and in many respects incorrect. In other words, as will be demonstrated we have a much clearer idea and more defined definition of a ‘science’ than we do a ‘religion’. Most notably our problem lies with not understanding the many difficulties associated with the term, most notably its history, evolution and definition. For instance it is unlikely that many individuals are aware of the fact that how we understand religion today only emerged during

the Enlightenment as is suggested by Harrison, “The concepts “religion” and “the religions”, as we presently understand them, emerged quite late in Western thought during the Enlightenment” (Harrison 1990, 1) and even though we use these terms on a daily basis as part of everyday language, and we are very familiar with the term religion and the “religions” we have very little idea as to the term’s complexity and virtual youth (as in it has only been used in its present form for a little over 200 years). It must be noted that finding a methodology that dealt primarily with these many unanswered questions was one of Wilfred Cantwell Smith’s reasons for writing his innovative work *The Meaning and End of Religion*; giving credence to the fact that these are problems shared by many members of the western populace. With that said, the way the general public view religion is of course of great importance to our study as it in many ways grounds us, the student of religion, from viewing religion in a rather ubiquitous and from a potentially problematic and sometimes over presumptuous vantage point. Yet with that said, ‘religion’ as we know it has influenced, in one way or another, the lives of individuals within western society and of course what was once the great Imperial East. Despite all of the knowledge of the academics in this area, what we are interested in is how the average individual or non-religious studies academic views religion in the 21st century. The reason for this is that these individuals are important actors in our study of religion, because examining how members of the general public view religion enables us, the student of religion, to gain a clearer understanding as to the role this phenomenon plays within western society. Furthermore, looking at this from a popular perspective enables us to understand how the lives and views of individuals have been/ and are shaped and effected by this phenomenon. This is of course supported by Cantwell Smith who writes that:

For what a man thinks about religion is central to what he thinks about life and the universe as a whole. The meanings that one ascribes to the term is a key to the meaning that one finds in existence...In the meantime I suggest that the inevitable particularism of any man’s conception of “religion” can in itself be turned to very profitable use. For what men think of “religion”, since they have begun to think about it, is as we have said highly illuminating as to their total orientation to life; it can become a major clue to their total thinking. If we can become self-conscious of our own limitations here, and aware of other peoples’ particular attitudes, we shall have enlarged the horizon of our understanding (Cantwell Smith 1962, 18)

After all it has been suggested by a number of scholars, but very animatedly by Richard King, that religious studies should be a cultural study (King 1999); and if we are going to accept his methodology we should not be afraid to look at how western society views and understands religion, but more importantly how these views have affected their lives. Though it can be argued that personal opinion, which is bound to come into play in any study that involves questioning the experiences of people, and is very difficult to test and quantify scientifically or tested for scientific purposes, these opinions cannot be ignored either, as they provide us with the at least some of the questions needed to better understand and also come to terms

with our western perceptions of religion. This gives us an insight into how “religion” has affected the mind-sets, lifestyles, and as is suggested by Smith (1962, 18) the orientations of many people. This approach becomes even more imperative if looking at the question of religion from a sociological and cultural studies perspective; because if we are truly going to suggest that religion is a cultural activity like all others, as this thesis will be demonstrating, then we need to understand how it is viewed within society. Regardless as to whether or not these views are proven to be incorrect or in the least inaccurate they are still relevant as they give us an insight into how people view religion within society but also, if inaccurate, will help us to engage with an examination as to why and how these rather reductionist views have come about or more importantly why we understand them in the way that we do.

This section will focus on only two or three very common conceptions of religion as understood and commented on by a number of religious studies scholars, including but not limited to David Chidester, Richard King, and Wilfred Cantwell Smith (who I will refer to a great deal in this thesis as Cantwell Smith). According to David Chidester “Religion is difficult to define, because everyone already ‘knows’ what religion is” (Chidester 2005, 13). Despite the fact that he is a bit vague as to whom everyone is (it can only be assumed that he is referring to the general ‘American’ public as his book is based primarily on an American demographic) his statement is a rather interesting one as it suggests a number of things about our (the west’s) understanding. The first is that the word ‘religion’ is so common place that everyone can comment on it and in essence are aware of its meaning. The second is that because ‘everyone’ is aware of its meaning and has an opinion on it, if asked the question ‘what is a religion’ or ‘what are religions’ it is likely that they would be more than capable of producing some form of an answer to that question. This answer would most likely take the form of some sort of label like Christianity, Islam or Buddhism and come with some general idea as to a style of personal/communal beliefs and practices associated with a said ‘religion’. Though Chidester makes a great deal of sense in what he proposed about the general public’s understanding of religion he is also quite quick to point out that the their very basic understanding of a ‘religion’ is not as clear cut or straightforward as may be believed. The complexities associated with the phenomenon “religion” is of course quite evident from an academic perspective; however from Chidester’s comments this appears to be the opposite within popular understanding. In other words “everyone” can answer the question ‘what is religion’ because from a general point of view religion is quite easy to define. Why the discrepancy?

Though it has been mentioned that the general public understands religion in a very generalist way, this may be somewhat of an unfair assessment because it is in many ways not their fault (as will be brought to light later within this chapter) to combat this Chidester provides us with examples of this understanding. He writes that “what passes as common knowledge about

religion tends to be organized according to binary opposition: people know their own religion (as opposed to other religions), true religion (as opposed to false religions), or real religion (as opposed to fake religion)...we need to develop a more complex sense of what we mean by the term *religion*" (Chidester 2005, 13). In other words he seems to be suggesting that although we as the general public view religion through a specifically binary lens, the term itself is too complex to be reduced to only these very 'black and white' characteristics like: 'god' and 'spirit'; 'supernatural' and 'transcendent'; 'good' and 'evil'.

His point is a very good one, and one that is shared by a number of contemporary scholars of religion as we will undoubtedly see. In many respects Chidester goes about illustrating these complexities successfully through introducing his "authentic fakes"; objects (primarily cultural icons) that take the place of religious institutions by creating religious experiences, two examples he uses are what he refers to as the "religions of Disney" and "McDonald's" (Chidester 2005, 1-5). He has this to say about his concept of 'authentic fakes':

American popular culture produces fakes, not only things that are made up or invented, but also people who are frauds and charlatans. Often these fakes are religious fakes, because they involve artificial or fraudulent religious claims about transcendence, the sacred, and ultimate human concerns...I argue that despite their fraudulence, these religious fakes do authentic religious work in and through the play of American popular culture (Chidester 2005, vii)

What this demonstrates is despite the fact that the general public views religion in a rather general way, the many varied definitions that we have of religion are so inadequate and skewed that they allow for such discrepancies. That is to say that, Disney and McDonald's can be regarded as religions because they perform the same functions as a 'proper religion' in this case they provide people with a 'community' 'creation myths' (to name only a few) which adhere to certain functionalist definitions. Though this is the case however, Chidester informs us that even though the general public view religion in such binary terms, and that institutions like Disney are filling the role of the 'church', individuals still separate a "true" religion from a "false" one (Chidester 2005, 3).

Even though it is relatively clear that the 'general' populace that Chidester is commenting on is the general American populace, we can gather another interesting point from his comments above especially in reference to the understanding that the general American public have about religion. That is that the 'common' individual does not only understand religion from a true or false perspective, or binary viewpoint as is proposed by Chidester, but that these very binary concepts are inadequate in illustrating the complexities associated with religion, because there is more to religion than what these 'black' and 'white' perspectives dictate, as shown in Chidester's examples of "authentic fakes". With that said it is fairly obvious that these

perspectives are not merely 'binary' but are quite reductionist (as will be further demonstrated). This raises a very interesting question, and that is how is it that the general public have this very odd view of religion? What is it about religion that makes us see it in such a simplistic way? We can gain some indication into the origin of these ideas if we delve a bit deeper into the words of Chidester and King; but first a few points involving this very binary outlook needs to be addressed.

For a start although Chidester mentions that this 'common knowledge' is often dealing with the 'truth' and 'falsity' of religion, and stresses that this seems to be the general American populace understanding of religion he sadly does not go into any great depth as to what these 'truths' or 'falsities' are and this understandably causes difficulties with our assessment as a whole because we have no definitive definition as to what these truths and falsities are; and in the case of Chidester's binary points what he seems to be suggesting is that the general populace see a 'true' religion as one that is associated with a particular trait or characteristic like a belief in god(s) or one that has some form of sacred text (like Christianity and Islam). From perhaps a more cynical point of view however it may be as simple as assuming that many members of the general western public see religion as a any 'belief' that falls into the categories of world religions, and accepted religions. To elaborate examples of 'world religions' would be Christianity, Judaism, Islam, Buddhism, Hinduism, as opposed to something like "Jedi" which is seen as a, 'unaccepted' and 'false' religion to the extent that concerns were raised about the new Marriage and Civil Partnership Bill proposed by the Free Church of Scotland as it may allow members of a belief group like 'Jedi' to marry couples (19th of March 2013 <http://www.bbc.co.uk/news/uk-scotland-highlands-islands-21842269> accessed by author on May 1st 2013 at 16:20).

This is of course also another problem with Chidester's examples of binary concepts and that is he seems to be suggesting that the general public see religion as 'true' or 'false' and 'real' and "fake" whether this was his intention or not is open to interpretation, it does however seem as though he speaks of these as specific binary coupled terms, which is confusing in itself as they are synonymous with one another, that is to say that 'true' is in many ways 'real' and 'false' is in many ways 'fake'. That said, regardless of our interpretation or whether we see these as separate binary terms or just examples of what people may say when asked about religion, it still remains relevant to the point at hand, that is how do these 'views' and Chidester's understanding of them, apply to the question at hand? Moreover how can these be used to push our argument forward?

For a start, Chidester's examples of binary terms presents us with another illustration as to the difficulties associated with our understanding of religion, but that bound up with his examples

of “authentic fakes” supports the fact that the word ‘religion’ is a loaded term that is incredibly difficult to define and is governed by many misconceptions and misrepresentations; many that seem to be related in some way to this idea of ‘real’ and ‘fake’. So what is meant by ‘real’ and ‘fake’ and ‘true’ and ‘false’? It has already been noted that Chidester does not go into a great amount of detail as to what or why these reductionists terms have come about to form the basis of our understanding of religion, so to shed a bit more light on this idea of “real” and “fake” and what is meant by our comment that it is virtually synonymous with our understanding of “truth” and “falsity” we turn once again to Richard King.

The Truth is Out There

In his *Orientalism and Religion* (1999) King provides us with further insight into our understanding of what makes a religion ‘true’ or ‘false’. He starts his evaluation with the history of the word religion or more accurately with its Roman ‘pagan’ roots. What he uncovers is quite fascinating in the sense that it gives us an in-depth look at how religion was understood in the past but more importantly provides us with evidence as to how it has changed for us in the present. King starts his evaluation by suggesting that what we understand as the ‘truth’ and ‘falsity’ that is now associated with religion was not always a part of its ‘original’ meaning. ‘Original’ is placed here in quotes because as we will see the meanings of the word of varied considerably throughout history. This combined with the idea of ‘truth’ and ‘false’ raise a few points to consider when assessing our understanding of religion. The first is that through King’s observations we are left with a sense that like its definition the history of the word “religion” has a history that perhaps echoes the difficulty of its definition as it too is very complex; and as has been suggested above by Cantwell Smith in order to understand this complexity it is important that we come to grips with the history of the word itself. It was because of the consent discrepancy with the word religion that Smith thought it best to abandon the term completely. He writes that, “In this instance one might argue that the sustained inability to clarify what the word ‘religion’ signifies, in itself suggest that the term ought to be dropped” (Cantwell Smith 1962, 17). There are other questions that are raised from the observations we have made and will make, one such question is: if truth and falsity were not always associated with the term religion how is it that these terms came to be associated so intimately with it now; to the extent that they are crucial factors in how the general public understand religion? More importantly what makes them so important?

As for the first question asked, King provides us with a sufficient answer when he suggests that the concepts of true or false are not “applicable to pagan religion” (King 1999, 37), and this has

the potential to give rise to many more questions but we should answer this one effectively first. What we gain from this is the general idea that if religion was not always associated with ‘truth’ and ‘falsity’ that our understanding of it is inaccurate, or more to the point constructed in some way. I am suggesting this because it has become apparent that there must have been some shift within the history of the word and its meaning that transformed it into the ‘concept’ that we understand today. This problem is suggested by Cantwell Smith when he seeks out to examine why we understand religion as we do (Smith 1962), and this shift and construction is commented on by King’s above. What we gather further from King is that the habit of associating ‘truth’ and ‘falsity’ with religion, coupled with our very reductionist and simplistic understanding of what a ‘true religion’ is as opposed to a ‘false one’ did not gain prominence until the appropriation of the term by the Christians. They used it to define their unique relationship with a higher power as was dictated in a text that was ‘written’ by him. It was at this time that the term was transformed from a word that was more closely associated with beliefs and practices to one that was primarily linked to the Christian holy doctrine which dictated how Christian followers should live their lives; however and perhaps more problematically it set the bar as to what a ‘true’ religion is, as opposed to a ‘false’ one (King 1999); when no such delineation seemed to exist before then. In other words Christianity gave us (in the west) the formula that dictated what constitutes a ‘religion’ when they adopted the term to define their very special and unique relationship with a higher power. As is presented by King before Christianity, the word ‘religion’ had no such tie to ‘truth’ and ‘falsity’.

To support this claim King very adeptly suggests that before the adoption of the word ‘religion’ by the Christians that the terms *religio* and *traditio* (are related in many ways as we will see in what follows) were descriptive instead of prescriptive (Ibid); meaning that these words were used to describe what individuals adhered to during their ancestral practices, i.e. rituals and the like, and nothing more. This of course is different than the ‘prescriptive’ form of Christianity that ‘prescribed’ how a ‘religion’ should be practiced in order for it to be a ‘true’ religion. This semantic shift from descriptive to prescriptive shows a major deviation from the original meaning of the word. A further example of this shift is demonstrated in the fact that Christianity was based on formal teachings dictated by a specific doctrine (the holy bible) that was in accordance with the guidelines set out by a supernatural being like God; the dissimilarity that King shows us between our current ‘Christian’ understanding and the ancient Roman understanding is quite remarkable. He does this by tracing the word back to its ancient Roman roots illustrating that the term *religio*, which forms that basis for our word ‘religion’, was synonymous with the term *tradition* (in many respects and also quite tellingly not that dissimilar from our modern use of the word). This is backed up by Paden (1992, 1) who informs us that *religio* during the Roman period meant something like "sacred

observance" or "piety". With that said both *religio* and *traditio* had to do with particular forms of cultural practices shared throughout different communities. He writes that:

...*religio* involves the retracing of 'the lore of the ritual' of one's ancestors. This understanding of the term seems to have gained provenance in the 'pagan' Roman Empire and made *religio* virtually synonymous with *traditio*. As such it represented the teachings of one's ancestor's and was essentially not open to question. Primarily *religio* involved performing ancient ritual practices and paying homage to gods... (King 1999, 34)

On close scrutiny what King suggests above as a definition of *religio* may not seem all that different from our modern understanding of what a religion is, as we see it in many respects as worship and homage to the gods (or to the one god); however the question at hand relates to 'truth' and 'falsity' and how it is tied up with our understanding of religion. On closer inspection and with help from King (not to mention not looking at this through an anachronistic lens) we can see how the concepts of truth and falsity are tied up in our Christian understanding of religion rather than the Roman. Taking a closer look at the Roman meaning, they saw *religio* as the acknowledgment and acceptance of the gods of all peoples because these practices were respected cultural practice; in contrast the Romans saw Christians as atheists because they did not respect others worship, they merely believed that their god was the 'right' or 'true' god. King writes that "...the Christians were frequently described by Romans as atheists precisely because they did not acknowledge the gods of others, (including those of the Romans)" (King 1999, 35).

We can see the beginnings of this idea of the 'truth' of Christianity forming in these informative years, which is evidenced in the Christian rejection of other gods (It must however be noted that this idea of the 'true' Christian faith did not come to light until much later). How this ties into the concepts of 'truth and falsity', as uniquely related to a primarily Christian ethos, is in the synonymous definitions of the Roman *religio* and *traditio*; if these words that denote nothing more than ancestral cultural practices were linked with 'truth' and 'falsity' then as is suggested by King there would be a fundamental misunderstanding of the nature of what these words actually meant. To elaborate, the concepts of *religio* and *traditio* were concerned with the ancestral beliefs and practices of a specific group of people, in many ways these two words signify what amounts to specific cultural practices as performed by a specific group or groups of people; I would even go as far as to suggest that these practices whether ancestral or not are no different than say folk music and dance that is also a practice unique to a specific group of people. So that being the case, if we understand these ancestral practices as being fundamentally similar to music and dance that is unique to a specific culture, how can we place the binary 'true' and 'false' parameters on these practice? We cannot, as that would be as ridiculous as suggesting that one's form of dance was truer and purer than another's. This is also supported by King who states that, "how could traditions and practices be described as

either true or false” when they were “simply the ancestral practices of particular communities” (Ibid). He uses an excellent analogy to strengthen his point and also to demonstrate the dangers involved with this form of binary thinking by further suggesting that if we place the parameters of “true” and “false” on these practices then it would be as nonsensical as asking if “Spanish or Indian or Russian culture were true and false” (Ibid). The point that King is making here is that as these beliefs were understood as part of a cultural specific practice, there is no room for “true” and “false” because they are nothing more than the said beliefs and practices as understood by a specific group of people; that is to say ‘they just are’.

What can be gathered from this is that it was not until the appropriation of the term ‘religion’ by the Christians that a ‘religion’ was reduced to Chidester’s binary concepts of truth and falsity as it was the Christians that believed that in order for a religion to be ‘real’ or in this case ‘true’ it had to adhere to specific rules; or more accurately to a specific doctrine (in this case the holy bible) and because of this it placed a great deal of emphasis on the correct interpretation of these terms, like religion, and the written word. Therefore as is stated further by King “... ‘true religion’ becomes a matter of orthodoxy; and religion becomes a tradition precisely in so far as it can justify itself in terms of these ancient truths” (Ibid 38). In other words, religion is no longer seen as a cultural practice, like the ‘pagan’ ancestral worship, but becomes a term that defines a specific practice based on specific ‘ancient’ teachings, that in many respects can be shared by all individuals (regardless of nationality) as long as the rules are adhered to.

Though we have looked at the idea of the binary concepts that are understood as our common understanding of religion, and have found that these concepts only become associated with religion when Christianity adopted the term, this is merely the tip of the iceberg. In other words, when coming to terms with religion it is not as simple as dealing primarily with truth and falsity as is presented by both Chidester and King or “us” and “them” as is suggested by Chidester or for that matter J.Z. Smith who writes that “the most common form of classifying religions, found both in native categories and in scholarly literature, is dualistic and reduced, regardless of what *differentium* is employed, to ‘theirs’ and ‘ours’” (Smith 1998, 276); but that it is a matter of getting to grips with what we really mean and understand about religion. Even though we have gathered from the evidence above that the general understanding of religion is sadly limited; that is not to say that our understanding is wrong or irrelevant. I am merely suggesting, along with a number of the scholars that we have looked at thus far, that we should be aware of the complexities associated with religion, including our own limitations and misinterpretations brought about by our rather binary and reductionist understanding of it.

So what is ‘religion’ and how do we define it? How to define religion and the problems associated with its definition is something that scholars have been struggling with for years,

and it is finding its way more and more into recent scholarship. It has been pointed out by a number of scholars like Fitzgerald (2000), King (1999), Smith (1982; 1998), Asad, to name a few, that religion cannot be as easily defined as we may believe; because there are many factors wrapped up in its “creation” and our understanding of it; primarily that it is a western construct (which will be covered later in this chapter). Furthermore its definition is too wrapped up in an ideology of truth and falsity that it becomes an illegitimate and impossible category to define, because as is suggested by King, the idea of “truth” is very theological and therefore impossible to codify (1999). He demonstrates this in his anecdote about the German Interviewer and Balinese teacher:

The German interviewer understands the truth in terms of historical actuality. For the story to have been true it must have actually happened. His Indonesian teacher, however, seems to conceive of truth more in terms of whether or not the story has truthful insights within it. (King 1999, 40)

This is echoed by Asad who suggests that “my argument is that there cannot be a universal definition of religion not only because its constituent elements and relationships are historically specific, but because that definition is itself the historical product of discursive processes” (Asad 1993, 29). It seems apparent from the very few examples presented above that recent critical scholarship seems to be taking the stance that religion cannot be defined simply; because there are many other factors at play that have effected how we understand it, and in many ways, its creation. In other words, religion or what we understand of it has been influenced by events, interpretations, and motives through the course of history. Though much of the scholarship that I have referenced has been produced over the last 20 years or so; certain scholarship would suggest that this problem has plagued the area of religious studies for far longer, and it seems to have come to a head in the 1960s with the publication of a progressive piece of work written by William Cantwell Smith, *The Meaning and End of Religion*. Smith is quick to point out that although many have tried to define the term religion all have failed. He writes that:

Advances must be made, but we do well to remind ourselves that many brilliant and careful thinkers have set themselves the task of trying to define religion—both religions believes writing from within a given tradition, and outside observers or critics. Yet they have failed to satisfy each other, and none of their suggestions has commanded wide acceptance. It is perhaps not presumptuous to hold that no definition of religion so far proposed has proven compelling, no generalisation has come anywhere near to adequacy. (Cantwell Smith 1962, 11)

Defining the term was such a problem for Smith that he suggests that we should perhaps omit it entirely “[because] it is notoriously difficult to define...one might argue that...itself suggests that the term ought to be dropped” (Smith 1962, 17). Though the problem is not presented in the exact light of Cantwell Smith, we can see echoes of it in the works of Jonathan Z Smith who

suggests in his essay “Religion, Religions, Religious” (1998) that the present definition of religion is absurd for a number of reasons, primarily because the root of the word has a plethora of definitions and uses. For instance, according to Smith it can be said that one has a ‘religion’ that other people have ‘religions’ and that some people are ‘religious’ or do things ‘religiously’. He presents us with an example of this in the form of the word “religiously” where he points out that as it is the term used to denote repeating an action over and over again, or what Smith describes as a “consciously repetitive action” is similar to the Latin nouns *religious/religions* but more appropriately the “adjectival *religious* and the adverbial *religiose*” which were terms used to refer to the careful “performance of ritual obligations”, but although similar to the word ‘religion’ as we understand it from a functionalist point of view (at least in one way) it does not have the same meaning as the word we use to classify things like Christianity and Judaism (Ibid 269).

As we can see only briefly presented above there are a plethora of different meanings from the derivative of the root *religio* and this also applies to the definitions of the term ‘religion’. Though Cantwell Smith’s approach was rather ground-breaking, and led to an explosion that saw the study of religion emerge as a cultural field rather than just a theological one especially in terms of questioning ‘religion’, he was not the first to consider this methodology. It can be traced back to at least the 19th century, to the works of Friedrich Max Müller. In his *Natural Religion* Müller set out to demonstrate that the study of religion was a science no different than any other. He referred to it as the “Science of Religion” and viewed it “as one of the natural sciences”; however as a natural science it needed to adhere to a scientific methodology. This methodology in his opinion consisted of “a careful collection of facts, illustrating the origin, the growth, and the decay of religion” (Müller 1889, <http://www.giffordlectures.org/Browse.asp?PubID=TPNATR&Volume=0&Issue=0&ArticleID=4>). This puts one in mind of the scientific method. One can assume that Müller’s careful collection of facts is similar to a scientist’s collection of testable data; and his illustration of the origin, growth, and decay of religion is no different than a scientist’s illustration of findings and assimilated data. He was however aware of a major problem with this approach, and that was that if he [Müller] was going to treat the study of religion as a science then he would first have to define what a “religion” was. His thoughts on this are as follows:

If the science of Religion is to be treated as one of the natural science...we shall find it impossible to do so, unless we first enter on a preliminary and, I must add, a somewhat difficult inquiry, namely, what is meant by *religion*. Unless we can come to a clear understanding on that point, we shall find it impossible to determine what facts to include, and what facts to exclude in collecting our evidence for the study of religion. (Ibid, vol 1 1889)

He starts us off similarly by suggesting that religion in itself is difficult to define and that many of his contemporaries believed that “religion” was wrongfully viewed as having something to do with “God or the gods”. What it is interesting to note here is that this problem is still one that baffles as well as motivates scholars to this day. It must further be noted that from what we have looked at thus far, this view is not that different from our own contemporary perspective, and although these beliefs may not first appear to be rife in academia, that is that one may hold the belief that these opinions are isolated to popular opinion, this is not necessarily the case. *Ergo* most of the scholarship that we will be concerning ourselves with, in support of this thesis, is based around refuting many of these “false” claims in academia, especially in ‘religious studies’, as was possibly Müller’s agenda over 100 years ago. Though Müller presents three different types of definitions mainly *etymological*, *historical*, and *dogmatic* (which will be covered in greater detail in the section that follows) he found that the historical was perhaps the most important out of the definitions, and although somewhat outdated gives a very good summary as to why he decided to take this approach. He writes this of the Historical definition:

We now come to historical definitions. What I call an *historical* definition is an account of these very changes which take place in the meaning of a word, so long as it is left to the silent and unconscious influences which proceed from the vast community of the speakers of one and the same language. Thus an historical definition of *deus* would have to show the various changes which led from *deva*, bright, as applied to the sun, the dawn and other heavenly phenomena, to the *Devas*, as powers within or behind these heavenly bodies, and lastly to the beneficent agents in nature or above nature, whom the Hindus called *Devas*, and the Romans *dii*. As the biography of a man may be called his best definition, what I call biographies of words are perhaps the most useful definitions which it is in our power to give (Ibid, vol 1 1889)

That said a large part of his strategy seems to want to demonstrate that the word ‘religion’ itself also has a history, which he does quite effectively. This is illustrated by Müller when he suggests that not only does our understanding of religion have a history that has been coloured by many years of differing interpretations, but so does the word itself. This is as equally beneficial to our understanding of the definition, because the two are interlinked. That is to say, if we understand that the word has a history we can better locate it in time and study the events as well as thoughts that may have shaped it into what we know of it today; clearly demonstrating that the shaping of this phenomenon did not happen overnight but instead it took centuries to evolve into what it is today. Müller explains this complex history in the excerpts that follow:

We now come to what I called the *historical* definition, or what others might prefer to call an historical description of the fates of the word *religio*, while confined to its own nature soil. Most words, particularly those which form the subject of controversies, have had a history of their own. Their meaning has changed from century to century, often from generation to generation; nay, like the expression of the human face, the expression of a word also may change from moment to moment...(Ibid, vol 1 1889)

So long as the word *religio* remains on Roman soil, all changes of meaning seem perfectly intelligible, if only we take into account the influence of those forces which determine the growth of meaning in all words. Afterwards, when the word *religio* is transferred from a Roman to a Christian atmosphere, from classical to medieval Latin and the modern Roman dialects, from popular parlance to technical theology, the case becomes different. We then enter on purely *dogmatic* or self-willed definitions, the natural growth of language seems arrested, and all we can do is to register the various meanings which have been assigned to the word *religion* by philosophers and theologians of authority and influence. (Ibid, vol 1 1889)

In many ways Müller's approach is not that different than the methodologies used and adopted by many of the scholars that we have looked at thus far and those that we will be looking at. This becomes especially apparent by the recurring themes that seem to be prominent in this field, and that is the want and need of some scholars to move 'religious studies' away from the realm of humanities into the realm of the social sciences. One of the most advocated ways of doing this (as we have seen and will see) is by focusing more on religion as a part of a whole rather than the whole itself, in other words by demonstrating that religion is not an isolated phenomenon and many factors, like cultural activities and ideologies, played a role in its development. This is in many ways demonstrated by Müller when he makes a comparison of the differing definitions, but becomes more apparent when he suggests that "So long as the word *religio* remains on Roman soil, all changes of meaning seem perfectly intelligible, if only we take into account the influence of those forces which determine growth of meaning in all words" (Ibid).

What Was, Is, and Will Be: The Etymological and Historical Definitions of Religion

So far we have covered a great deal of ground concerning the complexities associated with religion, mainly the rather reductionist dichotomy that we seem to possess when it comes to categorising it into 'true' and 'false' types. It has also been pointed out that the problems we seem to have in regards to it are not in many ways our fault. In other words our understanding of it has been skewed by centuries of misinterpretation and misplaced knowledge. What I have not yet pointed out is why this is the case. This section will primarily be focused on this issue. However, in order to do this successfully we must first understand the historical as well as etymological definitions of religion as these are tied up as much in how we view and understand the word as it is in our misinterpretation of it. Knowing the history and etymology of the word provides us with a roadmap, so to speak, as to its movements through the centuries as well as the intellectual shift in our understanding of it. At first glance it might appear that the methodology that I have adopted is very similar to Müller's especially as we are looking at many different ways to define it; however as is demonstrated by a number of the scholars we

have looked at thus far, this is a popular approach because it is a good approach. It not only gave Müller a means to firmly place the study of religion into the natural sciences (as was his belief) but it gives the modern scholar a logical starting point in understanding the intellectual shift and movements of the word and how it has impacted our understanding of it. King sums up the importance of this approach quite succinctly, “the term clearly has a history that is bound up with the cultural and intellectual history of the West and deserves some attention in any discussion on the nature of ‘religious studies’ as a discipline” (King 1999, 34). Though this approach is followed by a number of different scholars, as we will see, they go into different relative degrees of definition, some more in-depth than others but all still relevant to our point.

Our first definition is Paden’s who informs us that “The term religion has been used quite differently throughout Western history” (Paden 1992, 1). There are a number of things to note here that are of importance. The first is that Paden informs us that the way in which we view religion in the “West” has changed throughout history. This is important because it reinforces to some degree what we point out above in regards to the shift in our understanding of the meaning of the word religion, how it has been influenced by outside as well as internal factors, and firmly identifies the fact that this evolution took a great deal of time to develop. The second is that this gives us an indication as to a recurring theme that is found throughout the scholarship; and that is how our idea of ‘religion’ is tied up with our primarily Western—Christian—understanding of it. It will become clearer as to why this is the case in the paragraphs that follow. Thirdly and closely linked to the first point, Paden provides us with the understanding that the word ‘religion’ in one way or another has not merely shifted but also “evolved” through the course of western history; we see this superficially demonstrated in the Müller example above where he points out that the dogmatic definition of the word has shifted with the conversion from a Roman to a Christian atmosphere in the West (although the intimate connection between ‘religion’ and western culture was not picked up on by Müller) and that it was also influenced by the change in the

Latin language itself (Müller 1889
<http://www.giffordlectures.org/Browse.asp?PubID=TPNATR&Volume=0&Issue=0&ArticleID=4>).

We get a very similar indication of this shift in Cantwell Smith’s *The Meaning and End of Religion* (Smith 1962) as his chapter “Religion in the West” focuses on these changes. It must however be noted that although Smith points out that the term ‘religion’ went through a shift from its Roman usage to its Christian, much like Müller, he takes it a step further by pointing out other words associated with the new Christian religious life that also came into focus:

As we have suggested, however, the concept of “religion” did not altogether keep pace with the new evolution. The Christian group, to verbalize the new life that they were experiencing and proclaiming, introduced in addition to *ecclesia* other elements of a new vocabulary. The most important was the new concept of “faith”. In addition, however, they of course took over also a great many terms from the older religious life, which survive honourably until today: piety, reverence, devotion, divinity, ritual, chapel, to name a few from the Latin side. Among these was *religio*, which appears richly in Christian writing in Latin from the beginning. (Cantwell Smith 1962, 24).

Of further note as is indicated by the title of Cantwell Smith’s chapter is that it also provides us with evidence to support my earlier point of the recurring theme (the “west”) found throughout this scholarship. This approach as well as western theme has been adapted and adopted to a greater or lesser extent by many other scholars of religion like J.Z. Smith, Paden, Asad, King to name a few. It is interesting to note that even the definitions of these said changes in the usage of the word, throughout the ages (which is quite well documented) still seems to vary from interpretation to interpretation, and scholar to scholar, demonstrating further the fluid and rather interpretive nature of ‘religion’. Though this can be a hindrance, it is something that must be expected throughout religious studies scholarship. In other words the research that we are engaging with is incredibly interpretive and because it will differ from scholar to scholar and person to person we must keep abreast of these differences and be cautious of them; this idea is also shared by Cantwell Smith who suggests that:

We must be alert also lest we fail to grasp how the ideas behind even the same words vary, in subtle or profound ways, from thinker to thinker, from century to century, from community to community--so that we read into other people's minds ideas out of ours. (Cantwell Smith 1962, 17)

A further arguable difference between Paden’s definition of religion and others (that we will be looking at) is that he informs us that ‘religion’ comes from the Latin word *religio* which during the Roman period meant something like ‘sacred observance’ or ‘piety’. He goes on to explain further that “the ancients themselves debated what true *religio* should be” but does not provide us with any details as to this debate or if this was actually the case (Paden 1992,1). He informs us further that Christianity appropriated the term and saw its own worship as the true form of *religio* (Ibid). However, this was short lived, as the Christian arguments over the concept of what is *religio* came to a head during the Reformation (Ibid). There is of course no mention of Cicero or more importantly Lactantius who according to Smith (1962, 27) was the first to present the idea of a true and false religion which was later adopted by church fathers; before Lactantius this concept was non-existent, there was no place in the cultural activity that was *religio*, for a “true” form of worship, only an appropriate form of practice (King 1999, 22).

Additionally, the above is basically all Paden has to say about the etymology and history of the term. The problem that arises from this definition is that it gives one the false impression that

the term “religion” and its history is rather simplistic, short, and straightforward. I would like to suggest that this is perhaps part of the reason for our stunted representation of religion. That is not to say that Paden is personally responsible for this misinterpretation; but rather to suggest that if scholars like Paden present the history of religion as this simplistic it becomes simple to the observer. It is then falsely presented as a relatively simple and easily definable phenomenon that is only influenced by one or two events in history; in the case of Paden the events are, it was influenced by the Romans, the rise of Christianity, and finally the Reformation. In many respects Paden’s view is a rather theological one because it focuses primarily on a rather Christo-centric philosophy of religion. This as well as exhibiting religion as a simple concept is what we want to avoid in religious studies; especially if we want to present as true a story as possible. However, with that said Paden also provides us with a rather helpful understanding of religion (or at least our modern understanding of it) by suggesting that it is primarily Christian in its construction and origin, and that the term was adopted by the Christians to define their unique way of practice. It must be noted that despite this however he does not go into a great amount of detail about this either, so we get no indication as to what this practice entailed nor do we get a real sense of engagement with the history of the word before its adoption by the Romans; the most that he shares is that it was a Roman word that meant “sacred observance” or “piety”, underrating the real dynamism that is associated with the word and its history. This is in contrast to Cantwell Smith, King, and to a lesser extent Müller where we get a much clearer idea of the fluidity of the term ‘religion’ as well as its dynamic and evolving history. For instance Müller informs us that the word *religion* was applied to a number of different concepts not just Paden’s ‘sacred observance’ and ‘piety’:

Tracing the history of *religio*, we find it used in Latin in its original and wider sense of regard or respect, in such expressions as *religio jurisjurandi*, reverence for an oath, as distinguished from *metus doerum*, fear of gods. (Müller *Natural Religion* 1889 vol 1, <http://www.giffordlectures.org/Browse.asp?PubID=TPNATR&Volume=0&Issue=0&ArticleID=4>).

Religio and *metus* occur frequently together, for instance, Cic. ii. In Verr. 4, 45, 101, *u team (cupiditatem) non metus, non, religio continteret*, where we can translate the two words *metus* and *religio* by fear and awe, fear expressing the fear of men or of consequences, awe the fear of the gods...such expressions also as *religio est facere aliquid* do not refer to religious scruples only, by to any qualms of conscience... (Ibid)

After a time, however, *religio* became more and more defined as the feeling of awe inspired by thoughts of divine powers. Thus Cicero states, *religio est quae superioris cujusdam natura quam divinam vocant curam caerimoniamque affert*, ‘Religion is what brings with it the care and cult of some higher power which they call divine.’ As we find here *religio* and *caerimonia* placed side by side, we find likewise *cultus* and *religio* joined, the form expressing the outward, the latter the inward worship of the gods. (Ibid)

As we can see Müller's interpretation is in sharp contrast to the oversimplification of the term presented by Paden. For a start Müller does not merely suggest that the word religion meant 'sacred observances' or 'piety' in fact there is no mention of this at all in Müller's description; indicating that *religio* had many different meanings to the Romans, some of which may, at first glance, seem similar to our own understanding. This is reflected by Cantwell Smith who informs us that *religio* was, "a term that eventually was used in a great variety of senses, even by a single writer, without precision" (Smith 1962, 19). Though this may be the case it is very important that we do not read our own interpretations into these definitions as we must also take into account the many different factors that may have influenced them, including different aspects of Roman culture and society which is quite different from our own.

King speaks of the importance in assessing its history and how it has been defined throughout history; he writes that, "What is required, therefore, is a genealogy of the "mystical"—that is a history of the idea that pays specific attention to the power dynamic involved in the way in which it has been defined in various historical circumstances" (King 1999, 8). Though this example applies directly to the definition of 'mystical' rather than 'religion' King later informs us that one should approach both in a similar vein and sets out to do just that (King 1999). As has been mentioned previously, there are however complications that can arise when adopting this methodology. The first is that we need to take into account as is demonstrated by all of the different definitions of *religio* presented above, that not only do these definitions vary considerably from scholar to scholar but their meaning has changed and shifted through the ages. King writes that "One can use working definitions in a heuristic and provisional manner but these remain the historical products of culturally specific and politically implicated discursive processes" (Ibid, 10). In other words if we are to approach this satisfactorily, not only do we have to take the ever changing definitions of the word as well as its multiple uses and meanings into account, but we must also be aware of the fact that these definitions do not exist in isolation. This is perhaps better explained by McCutcheon who states that, "...employ the term 'religion' as a theoretically useful heuristic for elaborating on the myriad of normative discursive practices that sanction forms of individual action and social interaction and organisation..." (McCutcheon 1997, 212). A problem that may arise if we neglect these warnings is that we may end up with an oversimplification of a term, much like the one presented by Paden; leaving us with a rather skewed or at least partial understanding of its history. For instance we can gather a number of points from Paden's example, the first is that the term *religio* is old and can be traced back to the "Romans"; and the second is that the meaning of the word changed at some random point in history, and lastly that it had to do with Christianity. How is any of this informative or helpful? Though it is fair to say that we have some idea from Paden's example that the word 'religion' has a history he does not provide us

with a chronology of these changes and how the word has been used throughout history; so it is like viewing the history of religion through a murky and fractured lens.

A Rose by Any Other Name...

This leads to a more pressing concern, and that is that with such a brief as well as incomplete historical description of the word it leaves us with gaps in our knowledge that can be filled with invented meaning. In other words, we may read a meaning anachronistically into a word like 'religion' even though that meaning may not have existed for the Romans at all, leading to more difficulties with interpretation and understanding down the line. Cantwell Smith warns us about this when he writes that "Finally, and most exacting, we must be alert lest the concept that either they or we have in our minds be taken as axiomatically valid, so that we read our ideas into the universe rather than vice versa" (Cantwell Smith 1962, 17). An example as to a common mistake that could be made if reading this anachronistically would be to suggest that a 'religion', a belief and worship of gods (as we understand it through a number of definitions), existed in classical antiquity; although in certain respects this was the case as far as 'ritual' and 'tradition' were concerned as was pointed out by Cantwell Smith (1962, 19) and King (1999, 34) their understanding of religion was not our understanding, they did not see religion as a 'thing' that was followed by specific people with specific beliefs in gods and doctrines in mind. With that said however, in truth this is not a modern phenomenon; theologians have been reading their own contemporary meanings into 'religions' for centuries adding to the difficulties that we face in its interpretation in the 21st century. For a more historical example of how theologians have been reading their own meanings into the word, we turn to Harrison who writes this of theologians in the sixteenth and seventeenth centuries:

The belief of primitive monotheism went virtually unchallenged for the sixteenth and seventeenth century and was an implication not only of sacred history, but also of such related and often unspoken assumptions as 'truth is more ancient than error'...Proponents of the ancient theology, while accepting primitive monotheism as an axiom, made the further claim that true religion had been preserved intact in many pagan countries for a considerable time--albeit by a sophisticated few...The textual evidence for this view came from such writings as the *Hermetica*, *Orphics*, and the *Sibylline Oracles* in which vestiges of true religion--God, immortality, *creatio ex nihilo*, the Trinity--were to be found. These writings were presumed to have drawn upon the wisdom of the Jewish patriarchs and to have predated Plato, who subsequently relied upon them for much of his theology...(Harrison 1990, 132).

Demonstrated primarily in the example above are the problems associated with centuries of reading anachronistic ideas into 'religions'. What we can gather from this example is that from at least the sixteenth century, theologians saw 'true' religions as being those that were based on texts and one god; an ideology that has its origins in Christianity with its focus on the one true God and the bible. However the major problem that arises is that because these

theologians regarded a true religion to be one that was based on texts and monotheism, they falsely interpreted ancient texts as well as ancient beliefs as being true indicators of the truth of the 'one God'; hence legitimising as well as reinforcing their own beliefs as the true beliefs.

In other words, by proposing these false claims, they have in essence rewritten a history that suggests that Christianity is *the one* true faith because even the ancients had practiced it; even if it was a more 'primitive' form of monotheism.

Cantwell Smith brings these problems into the present as he informs us that "...most of us today have become accustomed to a religious orientation that is quite different..." (Cantwell Smith 1962, 21). We also see this reflected in Müller's example where he mentions in his description that *religio* was used in phrases that represented not only the fear of god(s) which is perhaps more closely linked (but not exclusively) to our own modern understanding of the word (and as is mentioned by Müller this became associated with the word at a much later stage); where the other phrases translated by Müller represented a 'fear of men' and 'reverence of an oath' which have no real similarities to our modern understanding of the word religion. It must be noted however that although they may not bear a resemblance to our definition of religion, the 'reverence of an oath' may have closely similarity to our understanding of 'religiously', that is doing something religiously rather than 'religious', the true and faithful worshiper of a belief system. This is perhaps more clearly illustrated by Cantwell Smith who writes:

To return: the early phrase *religio mihi est* is illuminating. To say that such-and-such a thing was *religio* for me emna that it was mightily incumbent upon me to do it (alternatively, not to do it: both are found, as is not unusual with 'mana', 'tabu', the holy, the sacred). Oaths, family properties, cultic observances and the like were each *religio* to a man; or, showing the ambivalence, one could equally say that to break a solemn oath is *religio*, that is, is tabu-as we might say, is sacrilegious. (Cantwell Smith 1962, 20).

The definition of the words presented by both Smith and King are also quite different than Paden's as they go into much greater detail; and interestingly (but not surprisingly) all of these definitions vary somewhat from Müller as well. For instance we learn from Smith that modern scholars (well modern at the time that he wrote his book) were at the time, and as we can see still are, 'divided' as to what the 'actual' meaning of the term really is/was (Smith 1962, 20). This of course may relate back to the anachronistic problem that was mentioned earlier that is that perhaps some of the difficulty may lie with the fact that we are reading our own meanings onto the term. Cantwell Smith writes that:

Modern scholars are divided as to whether it first designated a power outside man obligating him to certain behaviour under pain of threatened awesome retribution [relates to Müller description of fear of men—added by author], a kind of tabu, or the feeling in man vis-à-vis

such powers (or, indeed, whether the religious connotations are secondary developments from an originally secular word). The difference between the former two can easily become blurred, since these powers, we as outsiders would hold, were conceived subjectively –though they were believed or felt, reside in some objective thing or practice. Thus that in which ‘mana’ was felt to dwell, and the person whose scrupulousness towards it was vivid, were each termed *religiosus*. There were *religiosae locae*, sacred places and *virii religiosi*, reverent or devout persons careful in the conscientious fulfilment of the corollary prescriptions.(Cantwell Smith 1962, 20)

As we can see by these examples there were many diverse meanings and also uses of *religio* which in many respects demonstrates its complexity or at least our inability to gain any real sense as to one meaning of it. We however get a further indication of its complexity in the works of King, which give us an indicator as to the meaning of the word from a ‘cultural’ point of view. He suggests that this form of *religio* was associated with tradition. He writes that:

The term religion, of course derives from the Latin *religio* In the pre-Christian era Cicero provides us with an etymology of the term relating it to *relegere*—to retrace or re-read. Thus *religio* involves the retracing of ‘the lore of the ritual’ of one’s ancestors...This understanding of the term seems to have gained provenance in the ‘pagan’ Roman Empire and made *religio* virtually synonymous with *tradio*. As such it represented the teaching of one’s ancestors and was essentially not open to question. Primarily *religio* involved performing practices and paying homage to the gods. (King 1999, 35)

This description varies somewhat from the definitions above as it provides us with a look at another associated term of religion, *tradio*. Interestingly enough we are not presented with *religios* connection to *tradio* in either Smith or Müller, the reason for this perhaps is due to the fact that King has a slightly different agenda. He is using this connection to demonstrate the cultural similarities between *religio* and *tradio* in antiquity in order to illustrate an important point; and that is through illustrating their cultural connection he is advocating a more ‘cultural studies’ approach to religion. He even goes as far as to suggest that religious scholars should think of religion in a very similar vein to the Romans, as a cultural phenomenon not as a *sui generis* concept (King 1999, 11). Though he has a slightly different agenda this does not make his definition less valid, as it further illustrates the many differing meanings and uses of the term, strengthening our point about its complexity. Furthermore and more importantly with a little help from Smith, it highlights what appears at first glance to be only very subtle differences between our understanding of *religio* and those of the Romans, most apparent is its connection to this idea of performing certain practices to give homage to gods (Ibid). On closer scrutiny however these subtle differences are revealed as being quite alien to our own understanding further illustrating how easy it is to slip into anachronistic readings of the definition. Smith looks at these differences a bit more closely and through him we can get a better idea as to King’s orientation:

Also the ritual ceremonies themselves were designated *religiones*. Throughout Latin usage right to the end of its development the sense of rite, the outward observances of a particular practice, is to be found. This is, perhaps, to be related to a Roman tendency to perceive what we would

call the divine or holy not so much, or not only, in the form of a figure or 'god' as in that or a series of standardized acts. Whenever one meets the word in the later writers, the possibility must be borne in mind that this is what is meant. The *religio* of a specific god could then designate the traditional cultic pattern at his shrine. This particular way of seeing and feeling the world has largely lapsed, and most of us today have become accustomed to a religious orientation that is quite different (whether we accept it or not) we therefore need considerable imagination to conceptualize the Roman situation wherein the cultic practice was in some significant ways more important, more holy, than the god. (Cantwell Smith 1962, 21).

To elaborate on what has been written above, it is very easy for us to see where these perceived connections may arise. For instance these observances and practices seem relatively similar to those that members of a religious community may adhere to; for example, when a Catholic goes to mass the mass normally consists of worship, prayer, homily and the Eucharist, practices that are very much a part of what it is to be Catholic; one cannot be blamed for thinking that there is very little difference between how a Catholic practices his/her 'religion' and the Roman *religiones*. However on closer inspection we can see where the difference lies and that is in the intent of the practitioner (and it must be noted that by using that term 'practitioner' I am placing an anachronistic and very westernized term onto the Roman) but more importantly in the activities that are stressed. From what we can gather from both King and Smith the ritual practices themselves were of the utmost importance to the Romans, not the gods or the 'divine' (if we can even call it that without putting a huge Christian slant onto it), whereas in our own modern experience the community and practice is very much secondary to the god that we are going there to praise and to worship (at least from a functionalist and also popular Western perspective). In other words the Romans were more concerned with the activity of adhering to specific cultural practices; whilst we are concerned with following a specific reverence and reflections on a specific deity, the practice is in many respects secondary to the worship. One gets the sense that the 'holy' or 'gods' did not really figure greatly into the Roman ritual; it was merely par for the course; engaging in the correct practice was what was of the utmost importance. One is of course very 'pagan' in nature as both King and Smith attest to, whilst the other with its reverence toward a God and his works, and reflection on oneself and his/her personal relationship with said deity, is very Christian.

So where did these ideas originate from? Though we have looked at the Roman term and have been given an indication that our understanding of it has changed throughout the course of history, we have not actually looked at this 'roadmap' in any great detail. Therefore it is important that we visualise where these changes occurred, especially pinpointing when the shift between the Roman understanding of *religio* and our modern more Christian understanding occurred. There is a bit more to the history however as is stated by Harrison who informs us that "It is Smith's contention that during the age of reason the name 'religion' was given to external aspects of the religious life, to systems of practices. Whereas in the Middle Ages the concern for the Christian West had been with faith--a 'dynamic' of the heart'-

-in the seventeenth--century attention shifted to the impersonal and objective 'religion' ” (Harrison 1990, 1). However both Smith and King give us a more precise idea as to where and when these ideas actually materialised.

Smith brings to our attention that although it was not our modern understanding of 'religion' the idea of what we know of *religio* today can trace its conceptual beginning to the 1st century BC in Cicero's *De Natural Deorum* (on the nature of gods) and Lucretius's poem *De Rerum Natura* (on the nature of things). King also suggests that it was from Cicero that we get an etymology of the term *religio* as he related it to *relegere* which means to re-trace or re-read. Illustrating further that “*religio*” involved the retracing of 'the lore of the ritual' of one's ancestors” further demonstrating the stress placed upon correct ritual and a correct understanding as to how a ritual is performed (King 1999, 34). It is however important to note that although King presents us with this meaning of the word Cantwell Smith informs us that this was not the only reading; that is that Cicero's *religio* was not only concerned with ritual and practices (although this was one of the more important aspects of *religio*) but that there was a second meaning that was concerned with *attitude*. An attitude that was not only carried by the practitioner but also felt through his practice. Smith writes that:

He has not only generalized but also very considerably softened the archaic meaning of *religio* as that awe that men felt in the presence of an uncanny and dreadful power of the unknown. Yet he preserves that orientation by thinking of it as a feeling, a quality of men's lives. That *religio* is something within men's hearts is once directly indicated. And in introducing what has remained ever since an important discrimination of 'religious' from 'superstitious persons, he bases the distinction between the two on the attitude with which as worshippers they perform their observances. (Cantwell Smith 23).

Though we can slowly begin to see how our modern idea of religion may have come about especially with Smith's suggestion that it was all about how one felt when performing their observances, we get hints as to how the word may have evolved into what it has become. That being the case, King does not inform us as well as Smith as to how we arrived at our current understanding. In order to get a clearer picture as to how this occurred we turn once again to Cantwell Smith, who informs us that although these ideas were not our modern understanding of religion they were the precursor to it; and the reason for this was because people began to question things that were outside their usual everyday experiences, in essence they began to associate the “gods” and “spirits” of their rituals with phenomena that they could not so easily explain away. For instance Smith suggests that whereas Lucretius “fortified the strand that used the term to refer to something 'out there' ...Cicero's designation was usually of something interior to persons” (Cantwell Smith 1962, 23). A rather simple example of this would be thunder and lightning. To us in the 21st century it seems like a rather common weather pattern, but it is not hard to imagine it as being something as equally fascinating as it is frightening,

especially to someone who did not have the knowledge to elucidate the phenomenon. Though this may of course seem somewhat anachronistic, as we cannot be entirely sure as to what our ancestors thought of thunder and lightning, it was ideas such as these that gave rise to one of the first theories of 'religion' known as the "fear theory" (Harrison 1990, 15).

Harrison explains this theory as, "the oldest known 'theory of religion'...Sextus Empiricus credits the atomist Democritus with the authorship of this hypothesis. Democritus is said to have suggested that men became frightened when the sky thundered, imagining gods to be the cause of such phenomena" (Ibid). Though Smith does not attribute this intellectual shift to the "fear theory", as it is not mentioned in his work at all, it is not hard to believe that this may have been a factor in man's reliance on his/her gods to explain the unexplainable. However with that said Smith informs us that these ideas were more significant than that. That is to say that when men began to question external factors and forces this in many ways marked an epoch, a moment of clarity and a change in our intellectual processing, which began the shift from a concept like *religio*, which is quite alien to us, to the ever so familiar word 'religion'. He describes this shift as a time of "philosophic Enlightenment":

The important matter here one gets only incipiently. It does not come to fruition in Roman times, but is here adumbrated before lapsing again with the Augustan revival of the earlier Roman religious tradition and presently with the great sweep of the Church. Yet though it remains but a suggestions, one does get something of that philosophic 'Enlightenment' in which the intellect stands aside from all behaviour and contemplates it as an outsider, reflective or critical (Cantwell Smith 1962, 21-22)

Though we have not even begun to scrape the surface of our modern concept of religion, in the examples above we can begin to see where and how this shift occurred, one thing is certain however and that is that it was a relatively slow process. This is commented on by Cantwell Smith who states that "the next great development in the religious situation, reflected slowly and very partially in the development of an idea of religion, was a radical one..."(Ibid, 23). He suggests that it was in the creation of an organized Christian community in the Mediterranean that gave rise to the creation of a "new kind of religion" (Ibid). Smith further informs us that this "new kind of religion" also introduced what would become a significant feature of this new religion at this time and in generations to follow, the *ecclesia*. He writes that:

The idea that the Christian community introduced, a quite new notion covering a quite new phenomenon, was that of 'Church' (Greek and Latin *ecclesia*), for the structured—and dynamic—community that was injected into the previously rather amorphous religious life of the Greco-Roman world. Men who previously had known (and a handful of whom had just begun to speculate a little about) a multitudinous congeries of religious practices relating...to a diversity of gods, places, and occasions, now found themselves confronted or challenged by or living triumphantly within a new and large-scale order of systemized and coherent religious life (Cantwell Smith, 24).

In regards to the word *religio* what we gather from King is that the meaning of the word *religio* that we have adopted for our use tends to come from the writing of Lactantius, writing that focused primarily on *theistic beliefs* and also the dualism between the “human world” and the “transcendent” writes:

The shift in the meaning of the term *religio* in a Hellenistic Christian context remains highly significant in our attempt to understand the way in which the concept of 'religion' is understood in modern Western culture. Modern discussions of the meaning and denotation of the term *religio* tend to follow Lactantius' etymology, thereby constructing a Christianized model of religion that strongly emphasizes *theistic belief* (whether mono-, poly-, heno-, or pantheistic in nature), exclusivity and an fundamental dualism between the human world and the transcendent world of the divine to which one 'binds' (*religare*) oneself...Even when Lactantius is not appealed to directly, 'religion; in a Christian (and post-Christian) context now becomes a matter of adherence to particular doctrines or beliefs rather than allegiance to ancient ritual practices...The semantic shift, represented by Lactantius' discussion, transforms one's entire conception of the nature of religion. In the early Christian context, one consequence of this shift, or course, was the construction of a plethora of heretical movements inculcating what could now be seen as various forms of heterodox belief systems. (King 1990, 37)

Lactantius had a massive impact on our Western understanding of religion. We can in many respects credit him as the progenitor of our very binary understanding of religion, after all if it wasn't for him we would perhaps not see religion in quite the same way that we do in the west, as “ours” and “theirs” and “true” and “false”(Smith 1998, 276). It was Lactantius that can be credited with the semantic shift that would occur in our understanding of the word, as he was the first to associate *religio* with the concepts of *true* and *false*. This came about because of his need to demonstrate that in the light of cultish pagan practices (*religio*) that he found incorrect and in many respects “heretical”, Christianity was the correct path to follow.

The next step taken by Lactantius, is still more arresting. To express his conviction that the worship of God in the Christian Church's way is right, whereas observing the practices and ceremonies of the traditional cults is wicked, vain, and wrong, he introduces the terms *vera religio* and *falsa religio*. (Smith 1962, 27).

Unravelling the Complex Lattice of the Definitions of 'Religion'

It is apparent from what we have looked at thus far that religion is a very difficult word as well as concept to define accurately. That being the case how is it at all possible to appropriate what a religion is or is not? The answer to this question is a relatively simple one, we cannot. Hinnells uses the following analogy to describe the difficulty in defining religion, “Religions might be compared to diamonds; they have many facets; they can be seen from many angles,

but the pictures are too complex for any writer to see the whole” (Hinnells 2005, 6). However in order to understand religion we must first understand its complex history, which in many ways was presented above, at least etymologically. There is however more than one definition of ‘religion’ and in order to understanding and come to grips with our modern understandings of the term (regardless of how accurate or inaccurate) it is imperative that we are familiar with these varying definitions. In order to understand a few of these definitions let us return to Müller who categorised the definition of religion into three distinctive categories, one of which, the etymological we looked at extensively. The other two are historical and dogmatic, examples of these are as follows:

Etymological Definitions of Religio—The etymological definition of religion has attracted considerable interest among theologians, owing to that kind of tacit persuasion that the etymology of the word must somehow or other help to disclose its real meaning...so much for the etymology of *religio*, which in its first concepts can only have meant respect, care, reverence. (Müller 1889, *Lecture* 2, <http://www.giffordlectures.org/Browse.asp?PubID=TPNATR&Volume=0&Issue=0&ArticleID=4>)

Historical Definition of Religio—We now come to what I called the *historical* definition, or what others might prefer to call an historical description of the fates of the word *religio*, while confined to its own native soil. Most words, particularly those which form the subject of controversies, have a history of their own. (Ibid)

Dogmatic Definition—We have now to consider the third class of definitions, which I called *dogmatic*. They differ from the etymological and historical definitions in that they give us the opinions of individuals, whether theologians or philosophers, who take upon themselves to say, not so much what religion *does* mean or *did* mean, but what it *shall* mean. There is generally something dictatorial in such definitions. (Ibid)

Though the scholarship I have looked at thus far has sprung up mainly in the last 15 years or so, defining religion has always been a problem. To emphasise the difficulty in defining religion as is illustrated by William Cantwell Smith and J.Z. Smith we need only to look above, as although Müller has categorised these definitions into three types they are in no way complete or for that matter definitive, as they only reveal three possible definitions types. The problem with defining ‘religion’ is emphasized by Müller who suggests in his *Natural Religion* that “Practical people object to such questions, and consider any attempt to answer them as mere waste of time” (Ibid). It also becomes rather obvious in looking at his *Natural Religion* that although he attempts to answer the question what is religion for the sake of scholarship, he still finds defining the term ‘religion’ incredibly difficult. This is represented in the excerpt below:

If the Science of Religion is to be treated as one of the natural sciences, it is clear that we must begin with a careful collection of facts, illustrating the origin, the growth, and the decay of religion. But we shall find it impossible to do so, unless we first enter on a preliminary and, I must add, a somewhat difficult inquiry, namely, what is meant by *religion*. Unless we can come to a clear understanding on that point, we shall find it impossible to determine what facts to include, and what facts to exclude in collecting our evidence for the study of religion (Ibid).

If scholars have struggled since the 19th century to define the term religion and an entire discipline sprung up that deals primarily with the question of its definition, how is it that we are still quite confident that we know its definition? More importantly and perhaps more alarmingly how is it that despite the fact that scholars have difficulty defining the term it has been possible to conceive of and accept hundreds of possible definitions of religion? I will only be focusing on 4 definitional categories. It is suggested by Olson that not only can religion be defined but that the definitions fall into four general categories. These are: **experiential**, **substantive**, **functionalist**, and **family resemblance** (Olson 2003, 4) ; Olson identifies these classifications of definitions as follows: the first **experiential** tries to identify experiences and feelings associated with religious practice; the **substantive** definition examines the beliefs associated with various religions and seeks a common denominator (i.e. the belief in spiritual beings); **functionalist** theory presupposes that everyone possesses certain individual and social needs that must be met, and religion becomes identified with a system of beliefs and practices, and **family resemblance** which states that religions are bound together in a family by a network of overlapping similarities and not by any strict identity (Ibid 3, 4, 55, 123).

The first that will be covered is the experiential; we see this represented by Ninian Smart in his 6-7 dimensional model where he writes that:

And it is obvious that the *emotions* and *experiences* of men and women are the food on which the other dimensions of religions feed: rituals without feeling are cold, doctrines without awe and compassion are dry, and myths which do not move hearers are feeble. So it is important in understanding a tradition to try to enter into the feeling which it generates...(Smart 1989, 11)

Smart reminds us that the importance of experience was central to Rudolf Otto's methodology, and that it was he [Otto] who coined the word 'numinous' to refer to the feelings that were aroused during a ritual or a 'religious' practice. Though Otto was the first to coin this phrase the concept of experiential religion is reflected in the work of William James (1902) in his *Varieties of Religious Experience* which according to Steven Stanley author of "Intimate Distances: William James' Introspection, Buddhist Mindfulness, Experiential Inquiry" is still "considered a classic in the Psychology of Religion and Spirituality" (Stanley 2012, 203). King

suggests that it was because of James that “one dominant trajectory in the contemporary study of mysticism since James has been the study of ‘altered states of consciousness’ and the phenomenon connected with their attainment” (King 1999, 22). This ‘altered state of consciousness’ is brought on from what James describes as experiences where “the religious spirit is unmistakable and extreme” and is “...a complex...tender...submissive...and graceful state of mind” (James 1902), which he further defines as “on the whole a religious state of mind...” (James 1902). Though this example does not directly parallel Otto’s phrase *mysterium tremendum et fascinans* (Otto, 1950) and even at first glance contradicts it at least from a psychological perspective, James suggests that ‘the religious mind’ is a peaceful mind that results in positive experiences (especially if one is a devout religious follower). This is suggested by the fact that the examples James’ uses to describe these experiences include anecdotes featuring what he regards as good people with devout minds (1902). Otto’s adjectival phrase seems to indicate that the feelings brought on from ritual practice are feelings of terrible fear inspired awe that come about through ritual practice, worship and communion with a higher power.

Both James and Otto are defining religion as a personal experience; and although at first these experiential definitions may appear culturally inclusive, they only remain so if you are of the opinion that all ‘world religions’ consist of a form of holy being that inspires a ‘religious state of mind’ or ‘fearful awe’. It is because of these gross over generalisations that the experiential definitions of religion are highly criticized. That said, a greater reason for rejecting these forms of definitions are due to the fact that they include some sort of experience, emotion, altered state of mind, or feelings some type of unquantifiable state of being. Additionally these definitions seem to be suggesting that these ‘states’ apply to everyone that practices a religion. For instance you may be an individual who is a devout {insert title here} attends a community gathering religiously but never experiences any feeling of awe when practicing his/her ‘faith’; does that mean that he/she is not practicing a religion or is irreligious because they do not feel inspired by an ultimate being or feeling of awesomeness? No, but this definition seems to assume that everyone has this experience nonetheless. More importantly I agree with King when he criticizes the definition for never dealing with “highly rarefied and non-sensory experiences” (King 1999, 20), as how can western scholars promote an experiential definition of religion that is so highly dependent on personal, and non-quantifiable experiences, when it is invested in providing testable, quantifiable and objective hypotheses? This is an impossibility; and in any other laudable field of study would be rejected on the grounds that it is based on highly questionable, nontestable, and interpretative subjectivity.

In order to deal with the problems raised by non-testable hypotheses proposed by definitions like the experiential, scholars of religion and theology have attempted to put religion into more

testable, definable and tidy definitional categories. Two of these categories are the substantive and functionalist definitions. Though Olson provides us with a general idea of their functions and differences they are described in much greater detail in Gordon Lynch's introductory text book *Understanding Theology and Popular Culture*. Lynch describes the **substantive** definitions (at least his) as understanding religions as characterized by certain core elements, e.g., belief in deity/deities or other supernatural force, people who have special religious roles such as priests or shamans, sacred scriptures or traditions, rituals, and sacred space (Lynch 2005, 27) Olson suggests that substantive definitions of religion "examine[s] the beliefs associated with various religions and seeks a common denominator" (Olson 2003, 54). He further suggests that this core element is the belief in a transcendental being, as was suggested by E.B. Tylor in 1871. This of course has been followed by other substantive definitions like Ross (1901, 197) which defined religion as a belief in the unseen; Parson's (1937, 665) and more recently Swatos and Gustafson (1992) who identify that substantive definitions may also question the social relationship that are built around beliefs in the supernatural having the potential of creating ethical consequences; all of which regardless of methodology and area of study represent the substantive definition as being related in some way to a supernatural entity or transcendent being.

Although there are many arguments against this definition mainly presented by critics of religious studies like Cantwell Smith, J Z Smith, King, Fitzgerald, due to its very obvious monotheistic undertones which fall short on the consideration of non-western religions like Theravada Buddhism, it is regarded as a decent approach by some scholars because it reflects and also "encompass[es] what ordinary people mean when they talk about religion" (Bruce 1995, ix). One such scholar is sociologist of religion Steve Bruce. He writes that a definition of religion should "fit with broad common-sense reflections" (Ibid). In other words he is suggesting that our definitions of religion should reflect the beliefs and understanding that "ordinary people" undoubtedly have about what a religion is. Bruce writes that:

Religion, then, consist of beliefs, actions, and institutions which assume the existence of supernatural entities with powers of action, or impersonal powers or processes possessed of moral purpose (Ibid)

Though his intentions seems admirable especially as he is putting a specific emphasis on the 'ordinary person' and how they understand religion; I would suggest there are a number of problems with his definitions. The first is what is meant by 'ordinary people'. This is such a broad term with a plethora of interpretations. That is to say that in a credible academic field of study if a generalisation such as this is made it must be backed up with sufficient data and strong evidence, which Bruce does not do. Furthermore, how can one deem someone ordinary? On what grounds is this hypothesis tested? Does he mean 'ordinary people' in China,

‘ordinary people’ in Europe or in the Middle East, as these people are going to have their own ideas of what a ‘religion’ is and more importantly what they may deem as ordinary? As is proposed by Smith and strengthens my point, “the student; [or in this case scholar of religion] must be able to articulate clearly why ‘this’ rather than ‘that’ was chosen as an *exemplum*” (Smith 1982, xi). Bruce’s ‘this’ being the ‘ordinary person’ and his proverbial ‘that’ being something more definable and concrete like ‘the ordinary Italian’ or ‘American’ or ‘Japanese’. However, with that said even if he chose these examples the term ‘ordinary’ is such a loaded term that there is no real discernible definition of ‘ordinary’ unless he means the general norm, but by using that word we are moving into murky and rather disputed territory as the sociologist’s understanding of norm is not the same as the psychologist’s and we have not even added the ordinary persons understanding. Even if we give Bruce the benefit of the doubt and say that he is writing for a primarily European audience by basing his definition on the term ‘ordinary’ he is falling foul of the same plight that plagues the experiential definitions of religion, subjectivity.

Furthermore, the definition is assuming that *all* individuals coming from *all* different cultural backgrounds including the Theravada Buddhist tradition believe in a supernatural entity (a very western idea as we will see in the scholarship of Smith and Dubiosson that follows) which is not the case for this branch of Buddhism. Though he seems to get past this difficulty with reference to “impersonal powers or processes *possessed of moral purpose*” (Bruce 1995, ix) it is however a struggle to come to terms with what he actually means by this very vague statement. What are “impersonal powers or processes possessed of moral purposes” (Ibid)? It seems to suggest that even if the ‘ordinary person’ does not believe in “supernatural’ entities with powers of action” (Ibid) this definition will still apply as long as that person is driven by some power, practice, beliefs, and code of conduct that governs his/her life, well-being, and actions. If this were the case then Theravada Buddhism and all other branches of Buddhism would easily fit this definition because they rely heavily on following a code of practice. However in avoiding the narrowness that is presented by other substantive definitions (i.e. eliminating the reliance on “core elements”) he has created a definition that is too general and incredibly broad. In other words if a religion is defined by “impersonal powers or processes possessed of moral purpose” (Ibid) how does one draw a line between Buddhism and Vegetarianism, especially if the vegetarian is vegetarian because he/she believes that they have a moral obligation to protect all creature from harm; further demonstrating the many problems associated with the substantive definition of religion. Those are that regardless of how broad or narrow these definitions may appear to be they are too open to interpretation and impossible to quantify.

In contrast the **functionalist** definition “does not assume that religion is characterised by certain core elements, but by its ability to perform certain functions for individuals or wider society” (Lynch 2005, 28). In his definition of the functionalist approach he states that it “has been identified with three different functions within society that religions potentially serve. The first is *social*; the second *existential/hermeneutical*; and the third is the *transcendent*” (Ibid 28); the social, being, what Emile Durkheim proposed as one of the major functions of religion. That is that through shared religious experiences it provides people with a community or group that they feel a part of. Furthermore, it binds people into a social order of shared beliefs and values that provides a structure for their everyday lives (Durkheim 1915). In other words it segregates people into separate groups and influences as well as dictates how they are to live their lives. It must be noted that Ninian Smart’s methodologies were meant to move comparative religion away from the Durkheimian association of religion with society so that the concept of religion could become more cross culturally-orientated (Smart 1978). This is a gross oversimplification of Smart’s methodology but it illustrates the point that this definition has its own difficulties, even though they try to encompass a broader scope of definition.

To illustrate this point I turn to Yinger who states that the functional definition is “a system of beliefs and practices by means of which a group of people struggle with the ultimate problems of human life” (Yinger 1970, 7). As is demonstrated by Yinger the functionalist definitions are concerned with the role religion plays within our lives, whether this is societal, psychological or purposeful. These definitions are not concerned with beliefs and structures but what religions do for groups as a whole. This is of course clearly defined in the Durkheimian approach that concerns itself with the function that religion plays in society (1915). The second function proposed by this definition is the *Existential/hermeneutical* as suggested by Geertz, which is that religion provides people with a set of resources (e.g. myths, rituals, symbols, beliefs, values, narratives) that may help them to live with a sense of identity, meaning, and purpose (Geertz 1973). And finally the transcendent, as proposed by Hick who suggests that, religion provides a medium through which people are able to experience "God" the *numinous* or the *transcendent* (Hick 1990). The main problem with these definitions is that they are prone to reductionism. In other words we may reduce religion to nothing more than an institution that has a specific effect on society.

When presented with the evidence above how do the substantive definitions vary from their functionalist counterparts? The definitions of these approaches, as presented above (Lynch 2005, 28) do not seem to vary all that much from their substantive counterparts. For instance Olson tells us that the substantive definitions of religion include the examination of beliefs in spiritual beings. This being the case, how is this any different than what is proposed by Hick (1990) as the transcendent? In other words in order for religion to fill the third functionalist

category as is identified by Lynch (2005), that is the *existential/hermeneutical* function, does it not assume that one has to have a god or supernatural being to communicate with in the first place? The point being addressed is that regardless of how broad or narrow we may think that substantive and functionalist definitions are and whether we prefer one to the other we cannot ignore the fact that some of the definitions at one point or another include a God or communion with something beyond our understanding.

One of Fitzgerald's major criticisms of this scholarship is that it relies primarily on this concept that in order for a religion to be a religion it must possess some relation with a transcendent being; this is further illustrated by both Fitzgerald (2000) and Sharpe (1986) in regards to Müller's work; that is to say that regardless as to how this 'being' is understood or represented, whether as the Infinite, God, or transcendent being it seems difficult to conceive of a religion without some form of transcendent being. Even though Fitzgerald freely admits that Ninian Smart tried his best to come up with a methodology (phenomenology) that would combat the traditional Eliade idealism, that concerns itself with this understanding that in order for a 'world religion' to fit the definition of a 'religion' it must be dependent on an ontology of a transcendent being (Fitzgerald 2000, Smart 1978); Smart does not escape from this ideology entirely as this is in certain respects one of the core catalysts for his *experiential and emotional dimension*; although he does not refer to the transcendent directly, in mentioning the awe inspiring experiences of Buddha and Muhammad, and the spiritual visions that drive shamans onto their spiritual quests, he is inadvertently referencing the transcendent (Smart 1989, 11-12)

Fitzgerald strongly believes that for all of Smart's good intentions most notably in regards to formulating a means to compare world religions as equally as possible, and further as a means to break free from traditional ideologies that are ensconced in our understanding of religion he still believes that Smart's concept of religion is based primarily on a "metaphysical reification typical of ecumenical theology" (Fitzgerald 2000; 58, Smart 1978) He bases this on Smart's six or seven dimensional concept that was understood by Fitzgerald to be an analytical model and not a definitional one even though in his opinion "a definition is implied in the model" as it "presupposes that the defining characteristic of a religion is a belief in gods or a transcendent" (Fitzgerald 2000, 58). In principle Smart is doing his best to break away from the perceived norms that make up a definition of religion, primarily the belief in the transcendent and he does this by stating that "there are plenty of people with deep spiritual concerns...who may not themselves recognize anything as transcendent" (Smart 1989, 10), but by mentioning that this is how we understand religion is he not effectively supporting the point? In other words he does not deny that it does exist merely that not all people experience it.

Fitzgerald suggests in his *Religious Studies as an Ideology* that this idea of the transcendent found its route in the eighteenth century around the time of the Enlightenment. He suggests that this ideology was a specifically theological projection that “stretched the meaning of God and related biblical Judaeo-Christian notions such as...a vast range of notions about unseen powers” (Fitzgerald 5, 2000). He applies this more formally to the concepts of a supernatural being as is proposed by one of the substantive definitions above. Fitzgerald states that when relating the belief of a divine being as one of the core natures of religion that it gives rise to “intractable problems of marginality” (Ibid). He uses examples of ghosts, witches, emperors, ancestor gods and even film stars to support his point. In other words he is demonstrating that what makes up a ‘divine being’ is in many ways interpretative and therefore unsupportable (Ibid). Though the concept of an infinite or transcendent being seems to make up the majority of definitions related to religion that we have seen, and will see, Fitzgerald suggests that the more comparative assumptions related to religion are made up of other primarily monotheistic categories such as: worship, sacrifice, ‘god’, religious texts and so on and so forth. Fitzgerald informs us that these are based primarily on a classification system that he suggests are “...dominated by Judeo-Christian concept...” (Ibid 54).

So what is religion? From what we have seen so far our understanding of it seems to be based primarily on the fact that we only understand it through these marginalised definitions; and furthermore that these definitions or ideologies are often based on a very Western and Christian model as to how we understand religion. In other words they possess characteristics of Christian ideology, most notably the concept of a god-head of some description or another, religious texts, ritual, religious ceremonies and the like; although these are not the only characteristics that make up our definition. These as well as other aspects or essences of religion are believed to represent what makes up the ‘true’ definitions of religion as opposed to the ‘false’. It also provides us with common characteristics that represent religions and allow us to better compare them cross culturally (Smart 1978). Although this form of categorization is under some dispute by religious scholars like Cantwell Smith and J.Z. Smith as well as many others that followed in their footsteps, many of which have been mentioned above, these definitions still hold sway and prominence in the ‘what is a religion’ debate. This way of looking at religion as a mirror of Christian values is more clearly emphasised by Fitzgerald (2000) who believe that the reason for this is that these definitions have a strong tendency towards monotheism by focusing primarily on monotheistic themes. There have been attempts in the past to remove theological aspects from the study of religion (Smart’s work being an example of such an attempt) but both Sharpe (1986) and Fitzgerald (2000) believe they have failed because they have always been instilled with theological undertones as they were “heavily loaded” with western Christian assumptions about God and creation (Fitzgerald 2000, 22). This suggests that although it is true that the work of Max Müller was moving away from a

primarily Christian framework by adopting a more natural religion motif (as was demonstrated in a previous section) in hindsight it is rife with monotheistic assumptions (Fitzgerald 2000, 34). Primarily the assumption that all humans are born with some need or another to have a relationship with a universal 'infinite' (Sharpe 1986, 44).

God Has No Religion: Religion as a Western Construct

Above we have traced the history of the etymology, we have learned that the meaning of the term has had a very fluid history and that it has shifted with, as well as through, time. It has seen many changes from its use in the Roman era--as a means to define the practices of rituals of a given group of peoples--to its representation by the early church fathers as a means to set Christianity apart from other beliefs as the 'true' belief. Finally, we have seen its shift to what we know of it today in its many guises as a child of the Enlightenment, adopted in this way as a means to nurture the intellect and to fit the new 'scientific method'. We get a better idea of this from Harrison who writes that, "It would be expected that 'religion' and the strategies for its elucidation would develop in tandem. For this reason 'religion' was constructed along essentially rationalist lines, for it was created in the image of the prevailing rationalist methods of investigation: 'religion' was cut to fit the new and much-vaunted scientific method" (Harrison 1990, 2). Though from the examples above its transformation through time is rather obvious, what we have not yet covered is how we in the 21st century understand religion.

There are a number of questions that we must address in order to assess this sufficiently. The first is how did these changes affect our modern understanding of religion; and lastly and most importantly how do we understand religion in the 21st century? Though the answers to these questions are very dependent upon varying objective and subjective interpretations, it is worth asking them, especially if we are to truly understand the concept 'religion'. More importantly in order to provide a thorough investigation into the word 'religion' it is important that we know not only how the use of the word changed and differed through time, but also how these ideas differ from our modern understanding of it. It goes without saying that in order to do this efficiently we must first familiarise ourselves with our present understanding of the term. The term 'present' is used, because as we have seen and will see the concept 'religion' is a rather fluid concept that has shifted through time and in many ways is still shifting. Therefore, this state of constant flux must be taken into account when coming to terms with our modern understanding of the phenomena 'religion'. This is supported by Cantwell Smith who states that:

Next may be noted the sheer fact of change. The world is in flux, and we know it. Like other aspects of human life, the religions aspect too is seen to be historical, evolving, in process. Any modern endeavour to clarify what religions is, must now include a question as to what at various

stages of development religion has been. And it does not venture on some speculation as to what it may become in the future, at least there is recognition that, like everything else that we know on earth, religion may be expected to continue to change (Cantwell Smith 1962, 2).

This concept of the ever changing and evolving nature of religion is also commented on by King who writes that, “definitions shift over time, of course, and modern notions of mysticism [which we are applying to ‘religion’ as he does] differ significantly” (King, 1999, 10). Though we may have varying ideas of how we regard religion, and this is made apparent by the many differing substantive, functionalist and experiential definitions (naming only the most common known categories of definitions), it is safe to assume that a popular understanding of religion is that it has some form of a ‘belief in god/gods/ or some ‘divine being’, as was touched upon in the previous section. However, changing definitions are not all there is to our understanding of ‘religion’ as a concept. This is illustrated in our categorisations of ‘major’ and ‘minor’ religions. The major being ‘religions’ like: Christianity, Islam, Buddhism. Though the definition(s) of religion have something to do with how we define as well as differentiate between a ‘major’ and ‘minor’ religion, yes this is based on the followers of said beliefs, but also on the set definitions (although highly varying) that we base our understanding of religion on; thus illustrating a crucial problem with our understanding of religion even at the most basic of levels.

As soon as we define religions as ‘major’ and ‘minor’ we are in effect implying that one ‘religion’ is in essence more superior than another; reflecting in many ways an imperialistic attitude; an attitude that has been a part of our Western mind-set and understanding of religion since at least the nineteenth century. This is supported by Asad who informs us that:

Nineteenth century evolutionary theorists, including those we today call Anthropologists, insisted on a single distinction between rationality (which they identified essentially with European civilization) and irrationality (which they ascribed to varieties of primitivism, psychological or social)...These theorists were not always fully aware that their concept of a single substantive rationality was one of the faces of power. On the contrary, they tended to believe that power was a means for instituting rationality throughout the less civilized world for that world's benefit. In the twentieth century, this belief took a more explicit political form: translating the liberal conception and practice of "the good society" into every corner of the non-western world (Asad 1993, 232)

This forced and in many ways unfair and also manufactured distinction that we possess in the 21st century in regards to ‘major’ and ‘minor’ religions is illustrated quite plainly above. Those beliefs that Asad refers to as ‘irrational’ were known as ‘natural religions’ and in many ways were followed by less ‘civilized’ cultures, and those that were paired with ‘rationality’ and ‘logic’ were associated with the West which was regarded as a ‘high’ and ‘civilized’ culture. These Enlightenment attitudes are reflected even in the terms rational and irrational as is stated by Harrison “...‘religions’ was constructed along essentially rationalist lines...in this manner, ‘religion’ entered the realm of the intelligible” (Harrison 1990, 2). We can find a later example

of this general approach reflected in the works of A.M. Fairbairn in his *Studies in the Philosophy of Religion and History* (1876) where he divides religion into those practiced by 'primitives' and peoples in 'antiquity' and those practiced by the more civilized and modern races. He refers to these as the 'high religions' and the 'natural religions'. J.Z. Smith also comments on this division when he writes that "Nineteenth-century anthropological approaches focused on increasing the number of 'natural' religious categories, especially for 'primitive' peoples, those held to be 'nature peoples'...Often misnamed evolutionary, these theories conceded no historical dimensions to those being classified but rather froze each ethnic unit at a particular 'stage of development' of the totality of human religious thought and activity" (Smith 1998, 277). He does however inform us that Fairburn adjusted this rather antiquated as well as limiting categorisation of religion to one that was less 'dualistic' and slightly more varying; although it still reflected a rather imperialistic nineteenth century attitude, the separation between 'us' and 'them' the primitive vs the civilized (Smith 1998, 276). J.Z Smith describes Fairbairn's change as thus:

...such that the ultimate duality was between "spontaneous and natural religions" and "instituted religions," with the latter having two classes, each characterized by the same powerfully positive Protestant term: "Reformed Natural" (including the archaic religion of Israel ["Mosaism"] Zoroastrianism, Confucianism, Taoism), and "reformed spiritual" limited only to the triad (Buddhism, "Mohammedanism," and Christianity). All other "religions" fell into one of three classes of "natural", the replacement term for the older category, "idolatry" (Ibid, 278).

Harrison informs that this attitude was also prominent in the philosophies and elucidations of the Cambridge Platonists in the Enlightenment, who were in effect influenced by the earlier Renaissance Platonists as well as the Reformers; Harrison writes that:

'Animal Religion', or 'low religion'...if neglected, category in the theology of the Cambridge Platonists. It forms the basis of some of the more negative evaluations of the other religions. While the Cambridge school extolled the virtues of natural religion...It has to be borne in mind that the Platonists developed natural religion in response to a crisis of authority which had been precipitated by the Reformation...'Animal religion' must be understood in the context of Platonic interpretation of the Fall. For the Platonists, the Fall meant primarily a fall into the material world of sensuality. Reason, which was essentially spiritual in nature, could survive the Fall intact only to the extent that it was not subjugated to lower material desires. When that spiritual, religions faculty was overcome by the material, animal religion was the result...(Harrison 1990, 44).

As one can see the idea of 'animal religions' to the Platonists had a connection to the 'fall' of man so to speak, in many ways this was the start of the concepts of 'lesser' religions being those that were followed by 'lesser' individuals, 'lesser' to the extent that they did not have any knowledge of the 'Grace of the Christian God'. Not to mention 'lesser' because of their more

primitive natures and their connection to more material and animalistic desires. This also proved to be a good justification to members of the Reformation as to the presence of 'religious diversity' in the world (Ibid). What is interesting to note is that, in the excerpt above the overlap between Fairbairn's work and those of the Cambridge Platonists is readily apparent. We can see the Platonists' ideas of 'animal religion' as well as their concept of 'natural religion' reflected in Fairbairn's categorisation of religion above.

Illustrated very clearly by this example are the influencing and contributing attitudes to our own modern understanding of religion, especially the concept of 'ours' as opposed to 'theirs' that we keep returning to. A better example of our modern representation of this phenomenon is reflected by Cantwell Smith when he writes about his 20th century contemporaries. He states that "Normally persons talk about other people's religions as they are, and about their own as it ought to be" (Cantwell Smith 1962, 49); strengthening our argument that this imperialistic ideology is still a major part of our understanding of religion. In the 21st century it is very easy for us to believe that our attitude towards religion has changed, especially when we live in an age that propagates open-mindedness; innovation; and progressiveness; we would like to believe that we perceive religion in a very similar open-minded and inclusive way. I am not suggesting that we do not do this, I am merely pointing out that we, in the West, cannot escape from centuries and centuries of Christian and imperialistic ideological influences. We can see this inescapable ideology illustrated in a recent article written on the 1st of February 2013, in the *Telegraph*, on the subject of the importance of religion.

In this article Lord Rowan Williams stated that "Religion has always been a matter of community building, a matter of building relations of compassion, fellow-feeling and, dare I say it, inclusion" (<http://www.telegraph.co.uk/news/religion/9841063/Richard-Dawkinshttp://www.telegraph.co.uk/news/religion/9841063/Richard-Dawkins-attacks-irrelevant-religion-in-Rowan-Williams-debate.html> attacks-irrelevant-religion-in-Rowan-Williams-debate.html), accessed on June 17th 2013 by author at 9:16 AM). It must be further added that despite the fact that Lord Williams describes religion as "all inclusive" we cannot deny the fact that he is looking at religion through a very Christianized lens (also note the rather functionalist slant of this understanding), this is not purely based on his background but is apparent by the 'us' and 'them' attitude presented in the article. For instance, both Dawkins and Williams agreed on the fact that our idea of human rights was influenced by religion. "He added [Williams] that modern attitudes towards human rights had their foundations in religious traditions" (Ibid). It is interesting to note however that the beliefs of both Dawkins and Williams are in a sense rather misguided, through perhaps no fault of their own. That is to say that many westerners have been led to believe that all 'religious traditions' have similar ideas of morality because Christianity is grounded in certain concepts of morality;

ergo because Christianity is grounded in certain moral beliefs and practices all religions must have similar qualities. As we have seen these beliefs are in many ways quite inaccurate and also antiquated to the point that they are no longer accepted as valid arguments in certain academic fields, as they reflect a rather biased, reductionistic, and imperialistic attitude. Asad states that:

In much nineteenth century evolutionary thought, religion was considered to be an early human condition from which modern law, science, and politics emerged and became detached (1). In the century that followed most anthropologists have abandoned Victorian evolutionary ideas, and many have challenged the rationalist notion that religion is simply a primitive and therefore outmoded form of the institutions we now encounter in truer form (law ,politics, science) in modern life (Asad 1993, 27).

In reference to the above Dawkins hinted that these same human rights were not reflected in Islam, when he makes the comment that "If I were a cultural Muslim, I would have something to say about that faith's appalling attitude to women and various other moral points" (Ibid); suggesting that the "faith" has something to do with this attitude not the culture in which these attitudes are prevalent. What is further suggested by this comment is not only a religious divide between Christianity and Islam, but a cultural divide. Worth noting is that this divide seems to be understood by Dawkins as well as Williams to have its primary roots in religion. This is made even more apparent by the comments made by Dawkins who views himself as a "cultural Anglican" and mentions how he would view human rights if he were a "cultural Muslim" (though it is unclear what he means by this). This demonstrates the imperialistic concept of 'ours' and 'theirs' quite clearly. It must be noted however that it is likely that these opinions were not meant in this way, yet they reflect a dogma that has been created through centuries and centuries of ideological building blocks.

More importantly what this indicates is that this attitude is still prevalent in the 21st century and has even influenced those individuals that we would describe as being the educated elite, yet they cannot escape past influences. That said the ideals expressed by these two individuals although echoing much of the imperialistic attitude represented by J.Z. Smith are by no means solely created by shifting attitudes in the past. That is to say that these ideas do not only reflect a history of ideas but the religious climate of the 21st century coloured by world changing events like 9/11; the war on terror; and most recently the Boston bombings. However, if we were to listen to the media and how people speak about these events (as we so often do) one would get a rather jumbled picture that religion is the main cause of these travesties. Though it may have some influence on the way we in the west perceive certain things McCutcheon warns us about believing that things are as simple as this. He writes that "...examine carefully, media, government, and scholarly interpretations of other specific historical episodes and

demonstrate the way in which it may have been economically, socially, or politically beneficial for a specified group to portray events as essentially and exclusively religious rather than say, political or military” (McCutcheon 1997, 176).

Though it may be the case that we cannot ignore the fact that other factors may also be involved in how we view ‘religion’ especially in the 21st century, reflected in Dawkins’ comment on the ‘cultural Muslim’ and their breach of human rights; this does not necessarily mean that we should totally disregard the fact that concepts in the past have coloured our views at present, as this attitude of ‘us’ and ‘them’ is a real phenomenon that is often adopted by the West when dealing with other ‘world religions’. This is not only made apparent by the comments stated by Dawkins and Williams above, but is also illustrated by the author of this said article who writes that “Early in his address, Prof Dawkins made a provocative comparison between Christian and Islamic traditions, describing himself as a “cultural Anglican’ (Ibid). Dubuisson author of *The Western Construction of Religion* supports this point when he writes that “it is through its categories that we conceive of others, and that these others, who are most often subject to our influence, conceive of themselves” (Dubuisson 2003, 10); demonstrating that this attitude is still quite prevalent in the 21st century. In illustrating these attitudes J.Z. Smith, Asad, Harrison and Dubuisson are educating us as to why we carry these misconceptions, and where our judgements regarding religion have originated from, illustrating an even greater complexity associated with our understanding of ‘religion’.

Its complexity becomes more obvious the closer we scrutinise the word ‘religion’ in its present incarnation; and what becomes quite apparent, through this scrutiny, is that in the modern era we have many different definitions but also interpretations of it. Not merely in terms of ‘ours’ and ‘theirs’, or ‘what makes what a religion’, or even by means of suggesting that one belief is better or ‘truer’ than another and therefore a more acceptable belief (even though these ideas are never far from certain definitions of religion); but we use the term ‘religion’ in a myriad of different ways to mean a myriad of different things, even though in the west we seem to share the understanding that all religions follow a set criteria. For instance Cantwell Smith believes that in additions to the myriad of different definitions of it (though this is not mentioned by him) there are at least four distinct ways in which we use and understand the word ‘religion’. He writes that:

First, there is the sense of a personal piety. It is with this meaning that we are thinking today when we use such phrases as, ‘He is more religious than he was ten years ago’...Secondly and thirdly, there is the usage that refers to an overt system, whether of beliefs, practices, values, or whatever. Such a system has an extension in time, some relation to an area, and is related to a particular community; and is specific. In this sense, the word has a plural and in English the singular has an article. In each case, however, there are two contrasting meanings: one, of the system as an ideal, the other, of it as an empirical phenomenon, historical and sociological.

Normally persons talk about other people's religions as they are, and about their own as it ought to be. (This is a basic reason why 'religion' in the plural has maintained from the beginning a different meaning from the singular.) Those without a faith of their own think of all 'religions' as observably practised. Hence insiders and outsiders use the same words while talking of different things. Finally, there is 'religion' as a generic summation, 'religion in general'. Its meaning is inevitably derived in part, for anyone using it, from his sense of the other three. Is so far as it is historical, it is as complex as all 'the religions' taken together. Is as far as it is personal, it is as diverse as the men whose piety it synthesizes.(Cantwell Smith 1962, 48-49)

It is interesting that Smith should pick out these four distinctive ways in which we understand religion however with that said Smith has categorised it in such a way that makes it much easier for the student of religion to interpret and to also engage with, and keeping in mind that Smith writes for his audience over 50 years ago these ideas still apply to our modern understanding of religion. This is apparent by the fact that a great deal of our present scholarship on 'religion' still deals with many of the aspects that Smith presents above. For instance much of the phenomena mentioned in Smith's first and second examples apply to many functionalist as well as substantive definitions of religion that we hold today. That is the ideas that religion provides us with a set of resources like some form of symbology, belief, values etc. which Lynch lumps into his *Existential/hermeneutical* function. With that said, leaving the more functionalist approach behind and opting for a more substantive definition it commonly known that religion consists of specific or 'core' elements (Lynch 2005, 27-28).

In accordance with the above these elements would be what are mentioned by Cantwell Smith as "a system of beliefs, practices, values or whatever" (Smith 1962, 48). Furthermore, we can see how these ideas are still reflected in our modern era when we break them down into more precise and more contemporary terms. For instance, many individuals today still view religion as a sense of personal piety; as a way of explaining set beliefs (these core ideas) of a set group of people; and also as a means to distinguishing between "us" and "them" which is a very common classification of religion as we have seen; as was eloquently supported by J.Z. Smith and mentioned in an earlier section (Smith 276, 1998). That is not to mention that (in reference to Cantwell Smith's final point) religion is still seen as a separate sphere from the secular. In terms of its separation from the secular, it must be noted that this has not always been the case. The separation between the religious and the secular came about during the sixteenth and seventeenth century, "The great revolutions in science and religion which took place in the sixteenth and seventeenth centuries thus paved the way for the development of a secular study of the religions..."(Harrison 1990, 2), and was later solidified in the eighteenth century as is stated by Asad, "It was in "Europe's eighteenth century that the older, Christian

attitudes toward historical time (salvation expectations) were combined with the newer, secular practices (rational prediction) to give our modern idea of progress" (Asad 1993, 19).

The points above are backed up by Cantwell Smith himself who writes that, "The first sense discriminates religion in a man's life from indifference (or rebellion). The second and third (possibly intermingled) discriminates one religion from another; the fourth discriminates from other aspects of human life, such as art or economics" (Cantwell Smith 1962, 48). Apart from getting the sense that individuals hold certain ideas of religion and the rather 'precise' roles that it plays in an individual's life, what appears to be apparent in Cantwell Smith's example is that there is a great deal of 'discrimination' taking place here. This is however not unsurprising given its history as well as how it has been interpreted or in many respects misinterpreted through the ages. It is important to remember that a great deal of the scholarship that we are focusing on in this thesis deals with such misinterpretations and misrepresentations. What makes this even more interesting is that on closer inspection it seems as though our 21st century understanding of it is merely reflective of the changing relationship that we have had with it throughout the ages. In other words our modern use of the word 'religion' is in many ways an amalgamation and a minor reflection of our past understanding of it, as well (as we have seen) our changing attitudes towards it. Though this may seem somewhat obvious the point being made is that although we cannot say that our modern understanding of religion is the same as it once was in the Roman era, or for that matter in the medieval, we cannot ignore the fact that we can see remnants of its coloured past reflected in our present understanding of the phenomenon.

Not only have these ideas been a conscious part of our understanding of religion but they are also subconscious; that is to say that the shift did not only affect the definition of the word but it has also affected how we interact with the phenomenon that is 'religion'. After all is that not one of the reasons for tracing its history so thoroughly? That said, we can see an example of this if we return to the Roman definition of *religio*. Was it not the name for the cultural practices of a particular group of people? Therefore, if we were to strip the activities associated with our modern understanding of religious ritual down to its bare bones, that means in many ways to divest it of its Christian influence (as it has coloured as well as in many ways dictated how we view a 'religion' and practice it) we would see that these activities are not that dissimilar from one another. After all when we go to church or temple are we not engaging in some form of ritual that pays homage to a supernatural being (at least in one interpretation)? If we can think back to King's definition of the Roman *religio*, was it not defined as something that "involved performing ancient ritual practices and paying homage to the gods" (King 1999, 35-36)?

The major problem does not come with suggesting that these two “activities” are different, that is to say that the Romans as well as the modern Christian or Muslim is engaging in a cultural activity when he/she attends church or the mosque. The problems arise when we put a name to that activity and set it apart from other similar cultural activities, as is stated by King “what is required however, is an approach to the study of religions that takes seriously both the material and the political on the one hand and the cultural and religious on the other as mutually imbricated dimensions of human existence” (King 199, 61). That is to say that we should not separate religion from other ‘dimensions of human existence’. Returning to a question proposed in the last section, what makes the activity performed during a religious ceremony any different than a spiritual dance or bowing to *shinzen* before Kendo practice? Though one is in effect paying homage to a shrine when bowing to *shinzen* this practice is not set apart from the Martial Arts training, it is all a part of the same ritual practice.

Though we can see the logic in this, accepting this stance is easier said than done as what has been made apparent and will only be reinforced in the paragraphs that follow, is that we have (for lack of a better word) been programmed over two thousand years to view religion in a very particular way, and this way includes very particular criteria that we measure all other religions by, including hijacking the word ‘ritual’ to mean religious practice of some kind. Furthermore, to see our religion as the same as the Romans would be doing a huge disservice in many ways to the two thousand years of history that has patterned as well as shaped our western consciousness. Though viewing these things in the way that King and others suggest is in many ways hugely beneficial to the study of religion, as it offers a rather new and more systematic approach to it, it is perhaps too idealistic for us as researchers (and we can see this stance supported in much of the material we have used for this thesis) to accept that everyone will so easily abandon their understanding of religion regardless as to how inaccurate these beliefs may be. After all, the way that we understand religion today is a reflection of a long and colourful history of complex ideas, which is not easy to escape from.

That said, if we were to even slightly alter our very skewed idea of religion (that is understanding it as something it is not and this of course comes through the help of theses such as this) we can see that in many ways Cantwell Smith’s second and third category of religion do echo the Roman *religio* in the sense that these categories reflect cultural beliefs and practices regardless of whether or not we call these practices ‘religion’. It must also be noted that not only can we see in these categories centuries and centuries of intellectual programming, but Christianity has been a part of western consciousness for so long that we can see a fluid shift, in our understanding of religion, caused by this influence. For instance, in reference to his first category this understanding that is in many ways a reflection of one’s personal relationship with the divine, and also as a means to encourage and guide others along

a Christian path, had to come from somewhere; much like our rather imperialistic views towards religion. In other words this idea did not merely materialise from the ether into what it is today. According to Harrison this idea of a close personal relationship with God came about during the Middle Ages he writes that “...in the Middle Ages the concern for the Christian West had been with faith—a ‘dynamic’ of the heart...” (Harrison 1990, 1) This concept was later built upon one’s personal relationship with god, which was based not only on one’s faith but on one’s familiarity with God’s written word, King informs us of this, “the Reformation promoted an individualistic approach to religion and the ideal that all Christians should be able to read the Bible for themselves” (King 1999, 42). This is reinforced by Harrison who writes:

Of course within the tradition of reformed theology, at some ideal level, the fundamental principle of salvation was always 'by grace', through faith'. But at a more practical level, the gift of faith was seen to be accompanied by, or to reside in, knowledge of a special kind, to which those unfamiliar with the truths of 'revealed religion' could not be privy...Knowledge unto salvation' was not, originally at least, a set of propositions the acceptance of which conferred automatic membership of the elect. The 'knowledge' to which the Calvinists referred was knowledge of God's *will*, the assurance of salvation, the 'resting on Christ and his righteousness', made possible by the gift of faith (Harrison 1990, 21 and 22).

This Calvinist idea in many respects set the groundwork for the modern understanding of religion presented by Smith above, especially in respects to this idea that the criteria of a religion from functionalist and substantive perspective includes some form of written word. We can see this demonstrated in Lynch’s definitions, “A substantive definition understands religions as characterized by...sacred scriptures or traditions...” (Lynch 2005, 27), and from a functionalist perspective “...religion provides people with a set of resources...narratives...” (Ibid 28). In other words from a Calvinist perspective if one possesses this knowledge (that which could only be presented by the true faith) than he/she is more pious and religious than one that does not; and therefore has a better and closer relationship with God. Finally ‘our generic’ understanding of it as is presented by Smith above is a product of the Enlightenment and in many ways reflects this idea that religion is a separate sphere of influence from other activities that can be compared and contrasted to other forms of ‘religion’ in order to in many ways prove its legitimacy. This is demonstrated by Smith as being “as complex as all ‘the religions’ taken together” (Cantwell Smith 1962, 49) and is backed up by Harrison who writes that:

The great revolutions in science and religion which took place in the sixteenth and seventeenth centuries thus paved the way for the development of a secular study of the religions, and equally importantly, of a concept 'religion' which could link together and relate the apparently disparate religious beliefs and practices found in the empirical 'religions' (Harrison 1990, 2)

That is not to say that I am suggesting that we think about religion in the same way that we did in the past; but the examples above are being used merely to illustrate the origins of these ideological echoes in our modern understanding of religion; and to point out that our general idea of religion may not be as modern as we may believe.

In many ways the evidence that we have looked at thus far, seems to point to the contrary, that is that our understanding of religion is actually quite imperialistic and 'old fashioned'. After all many scholars are trying these new approaches to save us from our archaic and Eurocentric ideas even though it was in many ways western scholars that strongly contributed to this view. King states that "Somewhat inevitably, given the culturally pluralistic nature of the subject matter of religious studies, Western scholars have often been guilty of contributing to the colonial process of the non-Western world in their analysis of other cultures" (King 1999, 43). More notably these examples illustrate the fact that we cannot, even though we may try, escape the effect that Christianity has had on how we (in the West) view religion, let alone ignore the fact that Christianity has set the standard for how we understand religion and how we judge the religions of others. In truth we can see Christian ideology at work in Cantwell Smith's definition, and this is in spite of the fact that he is trying his best to be as objective as possible. This is apparent by the fact that most of the terminology he uses as well as the cultural undertones associated with it are Christian in context. Though Cantwell Smith informs us that he is presenting others' views of religion, this in many ways strengthens our argument as it demonstrates how encompassing this ideology is in shaping our modern understanding of religion. Taking a second look at Smith's four 'senses' model of religion we can see this ideology at work. For instance we can isolate terminology in this model that seem to have very set Christian undertones:

a personal piety...He is more religious than he was ten years ago...Secondly and thirdly...beliefs, practices, values... persons talk about other people's religions as they are, and about their own as it ought to be. ...Those without a faith...'religion' as a generic summation, 'religion in general'... it is as complex as all 'the religions' taken together...as it is personal, it is as diverse as the men whose piety it synthesizes...(Cantwell Smith 48-49).

As is seen above the term that is recurring throughout this is the idea of 'faith' and 'piety' two terms of which are intimately connected to Christianity and the beliefs and practices associated with it. Dubuisson informs us of this connection when suggesting that a word such as 'faith' goes hand and hand with Christianity to the extent that when we use the term 'religion' this concept is invoked. He writes that "For the modern French or English speaker, the word 'religion' evokes, for example, the terms 'God', 'church', 'faith', 'prayer'...'communion' 'sin' and so on. But these very terms, far from being isolated one from another in our mental dictionaries, on the contrary weave a very tight but flexible fabric, but one that is relevant only within the context of Christian civilization" (Dubuisson 2003, 30). Dubuisson's point is that

we are so tied up in this ideology that it in many ways is the building block of our western civilisation, and as such we cannot escape its 'spindly grasp'. He writes in reference to this, "Around this privileged notion, the Christian West, spiderlike, has continued to spin its web of concepts, to wind the successive variations of its learned discourse, to superimpose its palimpsests of speculation, in brief, to affirm its own identity" (Ibid 11). Dubuisson poses a question dealing specifically with these problems when he asks, "Should we not, moreover, go somewhat farther and ask whether religion is not effectively the West's most characteristic concept, around which it has established and developed its identity, while at the same time defining its way of conceiving humankind and the world?"(Ibid 9) His answer is that the concept of religion, but most notably Christianity, has influenced and contributed to all walks of western civilisation. He describes its influence as such:

Its reflection on the organisation of the world, on the nature of reality, its conceptions of humanity, of life, its political theories, its most admirable or most derisory artistic triumphs, its loftiest spiritual accomplishments, as well as its most sordid crimes--all have been conceived or committed one way or another with reference to this dominant concern...no order of things has ever escaped its diffuse, constant influence.(Ibid, 11)

He goes as far as to say that this is even true in how we as westerners define ourselves in the absence of 'faith' in God, as sceptics and atheists. We can even see the Christian influence propagated in the phrase 'those without faith'. As Dubuisson informs us that faith is intimately connected to Christianity, that is our faith in a higher power (i.e. God), then by inference one without faith or an *a-theist* does not believe in god. However in order for one to be an atheist then some form of theism has to exist in the West; and the concept of theism is in many respects a Christian construct. This is backed up by Dubuisson who states that:

Atheism, scepticism, and the modern scientific spirit have scarcely enjoyed greater autonomy, for they define themselves only by reference to religion and its claims. An atheist who denies the existence of the soul and of God, and who believes in so doing that he or she possesses sovereign independence of judgement, accepts, often unknowingly, the spirit and terms of a debate (the soul/body dichotomy; a universal governed, or not, by divine providence) that religion has chosen (Ibid 12).

In truth Dubuisson makes a very good case as to how Christianity has in many respects influenced over 2000 years of our history, and presents us with more evidence to back up this idea that Christianity is not only a part of how we view other religions but is in many respects part of our intellectual cultural heritage. He writes further that "In reality, has not the greater part of our intellectual culture, our common language, and our conceptual apparatus been shaped by two millennia of Christian civilization--simple because they were intimately intertwined with this history?" (Ibid). He goes on to explain this phenomenon in more depth where he writes that:

Religion was intimately linked to the principal events and to the major orientations of our intellectual history...because it has impregnated and often guided most of our ways of thinking, because it has defined the sense and the disposition of a great number of our conceptual networks, because it has continuously occupied our language and nourished our vocabulary, because it has contributed for centuries to the discipline of our bodies and our minds, because it has lent a particular orientation to our sensibilities, because it has nourished and organized our memory, because it has given our intelligence an unprecedented form, because it has been present for centuries in each of our arts, because it has influenced the design and patterning of our cities, because it has cultivated our manner of looking at the world, because it has doubtless also contributed to modelling our mental activities, and because it has been put at the heart of the principal debates and controversies affecting the definition of humanity as well as the destiny of the world (Dubuisson 2003, 36-37).

The Manufacturing of 'Religion'

To support this further we turn to Asad who writes that "What links them all together is the assumption that Western history has had an overriding importance--for good or ill--in the making of the modern world, and that explorations of that history should be a major ...concern" (Asad 1993, 1). What has been gathered from the previous example is that when defining or coming to terms with religion we cannot ignore the history of the West and its effect on the modern world, taking into account not only the positive effects it may have had on the rest of the world, but also the negative; and to understand that many of our perceptions in the West have been influenced and coloured by Western ideologies like Christianity, is the key to formulating a more objective approach to the study of the "world religions". To some this may seem like an impossibility especially as it can be argued that if as westerners who live within western society and grow up subjected to western views and ideals, we forfeit our rights as objective observers when dealing with non-western cultures. The answer to this is that it is impossible even with the best intentions to remain completely objective when dealing with the study of 'religion'. However this issue becomes less of a problem as long as we understand that we are working within particular cultural confines and as such it is important for us to monitor ourselves very closely when dealing with questions related to religion and culture.

This in many ways is what King is proposing in his rather systematic approach to the study of religion. In reference to this approach he writes "It is important, therefore, to maintain a commitment to cross-cultural and comparative analysis as well as a refusal to be limited by secular and Eurocentric categories" (King 1999, 60). Though he is fully aware that these biases exist he is presenting us with helpful parameters to work within, these include being aware of our restrictions as westerners, and making us aware of the fact that the biggest problem we face as westerners is falling victim to our own Eurocentric and somewhat isolationist views. Unsurprisingly, this approach is also taken up by Asad who states a similar methodology for the non-westerner as the westerner. He writes that "Non-westerners who seek to understand

their local history must also inquire into Europe's past because it is through the latter that universal history has been constructed" (Asad 1993, 200). Not only does this reinforce King's point as well as our own but Asad's words also signify an important and also rather significant fact, and that is that the 21st century world is a construct of 500 years of western dominance and manipulation.

This brings us to the next step on our journey; the concept of power and its connection to Christianity. This is in many respects the crowning example of our very imperialistic influence on the world, and a darker and more sinister product and cause of our internal and very Eurocentric views. This is evidenced quite adequately by Asad who writes about the dominating powers of the West thusly: "To secure its unity--to make its own history-dominant power has worked best through differentiating and classifying practices. India's colonial history furnishes ample evidence of this...its ability to select (or construct) the differences that serve its purposes has depended on its exploiting the dangers and opportunities contained in ambiguous situations" (Asad 1993, 12). Though Asad's comment may paint a relatively harsh picture of the reality of the West's influence on the rest of the world and our concept of religion, it is a factual reality, and its nature becomes more evident the more texts and scholars that we engage with. For instance we see a similar story presented in the works of Smith, Asad, King, Dubuisson, and Fitzgerald to name a few, who have dedicated a great deal of their works to this very subject. Though their points are presented in quite different ways they are all concerned with questions of the West's influence on the 'world religions'. Furthermore, what is also important about the rather harsh reality posed by Asad is that it sets us up with strict parameters to adhere to when studying religion; 'parameters' that can't be so easily ignored; arguably the most important of these being Christianity's influence over the rest of the world, and how it has coloured the West's perception of other religions and cultures.

To elaborate, this view is quite clearly represented in our categorisation of 'minor' and 'major' religions; which in many respects provide us with a microcosmic glimpse at the inner workings of this mind-set. In other words the terms imply an unequal relationship between an inferior and more superior force (i.e. major and minor); this is regarded as an even more complex issue when we take into account the many examples that we have looked at previously and the fact that these examples strongly suggest that we have labelled religions as such; and to our shame still refer to them, from time to time, in this way. For instance if you were to type 'major religions' in Google Search you would get numerous results dedicated specifically to these 'major' religions. Though you do not get the same abundance of results for typing in 'minor' religions, it is interesting to note that both of these searches lead to sites dedicated specifically to 'world religions', suggesting that the terms 'major' and 'minor' are still in popular use in the

21st century not only as a means to differentiate between religions but is one of the core elements of our understanding of religion in the 21st century.

Though it can be argued that these parameters are based primarily on the number of members within the religious community (suggesting popularity and size rather than superiority or inferiority) the differential in terms suggests that some form of inequality still exists in our understanding of these religions, even if this inequality is based primarily on popularity and number of followers, rather than supremacy; though it could be easily argued that the classification of major and minor religions of today still bare remnants of our imperialistic attitude, not only in their taxonomy but in the fact that the religions most often referred to today as ‘major’ and ‘minor’ are very similar to what we may have found in a 19th century list of the ‘world religions’. With examples of the major religions ranging from 12 to 20 however those on the top of many lists are Christianity, Islam, Hinduism Buddhism, and Chinese Folk religions (including Taoism and Confucinaism). At least this is what Wikipedia would like us to believe, and as it is one of the most popular referencing sites it gives us a good idea as to what the general public is being ‘fed’ in regards to ‘world religions’ (http://en.wikipedia.org/wiki/Major_religious_groups accessed June 29th 2013 by author).¹ I refer back to Fairbairn’s lists of ‘high’ and ‘low’ religions as used in the first chapter as a case in point.

This is also presented to us by Cantwell Smith who runs off a list of what was regarded as the ‘world religions’ of the 19th century. “In other cases, I have not found any formulation of a named religion earlier than the nineteenth century: ‘Boudhism’ (1801), ‘Hindooism’ (1829), ‘Taousim’ (1839), ‘Zoroasterianism’ (1854), ‘Confucianism’ (1862), and so on” (Cantwell Smith 1962, 61). In contrast to how we see the major religions of today, there is not a great deal of difference. Though Smith is more concerned with presenting his reader with the years in which particular names of ‘world religions’ were recorded, rather than with whether or not these religions were ‘major’ or ‘minor’ we can in many ways get an indication of their importance and popularity merely by the fact that they were recorded and in effect named by outsiders. In other words, in order for these religions to have been named they must have been known about by the westerners, suggesting that these ‘religions’ were practiced openly and regularly.

Though it appears from the evidence provided that the West has had a great deal of influence on the naming of ‘world religions’, it was not only the West that influenced this type of labelling. In other words, a great deal of these naming conventions came out of western pressure on non-westerners to conform to western Christian values, as were presented by

¹ The reason for choosing Wikipedia for this illustration is because of its popularity as an information site.

missionaries. So in order to prove that their “beliefs” were similar in some fashion to Christianity they invented “religions” out of indigenous belief. Fitzgerald informs us that:

...and so on emerged the notion that the non-western societies attempted philosophically and juridically to invent religions and to coin from indigenous concepts and appropriate word (In India it was dharma, in Japan shuyko). They also came up with religions, such as Hinduism, Buddhism, Shintoism, Confucianism, and Taoism, newly invented entities imagines as soteriological systems of an equivalent type as Christianity, different species of the same genus. (Fitzgerald 2000, 30).

In doing this the western missionaries could in many respects breathe a ‘sigh of relief’ as their one true God appeared to them, even in the primitive religions of indigenous folk proving not only his ubiquitous and undying love for his flock but also reinforcing the ‘fact’ that Christianity was the truest of all faiths as *the word of God* could be found in many belief systems. Fitzgerald writes that “...the view emerged that at least some non-Christian forms of life are rational soterologies, formulated in doctrines, and designated for the salvation of individual souls. The one true God revealed through Jesus Christ was detected in shadowy forms in the mythical figures of indigenous cultures” (Ibid 31)².

Despite the fact that the west seems to have had an indirect effect on the naming of many of the world religions, or at least an influence on them, there is an exception to this rule, Islam. It in many ways managed to escape this fate and Cantwell Smith examines how in his chapter aptly titled “the special case of Islam”.

The first observation is that of all the world’s religious traditions the Islamic would seem to be the one with a built-in name. The word ‘Islam’ occurs in the Qur’an itself and Muslims are insistent on using this term to designate the system of their faith. In contrast to what has happened with other religious communities, as we have partly seen, this is not a name devised by outsiders...this name for their religious system, moreover, has the sanction not only of the Muslims and their tradition but, they aver, of God Himself. (Cantwell Smith 1962, 81).

That is not to say that the West did not try to. Many Westerners referred to this Middle Eastern system as Mahumetanism, Muhammedrie, Islamism, Musulmanisme, with the earliest recorded name being Mahumetisme (Ibid, 60). This mirrored in many ways the West’s understanding as to the naming of their own unique set of beliefs, which was named for their prophet Jesus Christ. This is backed up by Malise Ruthven who writes that:

Muslims did not normally refer to themselves as Muhammadans (except as a descriptive term when addressing Europeans), because to do so would seem to imply that they worshipped Muhammad as Christians worshiped Christ. For orthodox Muslims such an implication was

² It is interesting to note that this belief still holds sway to this day in a number of Christian sects, most notably the Jehovah Witnesses’ whose *Mankind’s search for God* reads like a 19th century missionaries pamphlet on ‘world religions’ and their connection to Christianity.

highly offensive. Muslims worship God, not Muhammad. The Messenger was a prophet, not a deity or divine avatar (Ruthven 2000, 20).

What is also quite apparent in this listing is the imperialistic sentiment that gave rise to these naming conventions, that is this idea that others' traditional beliefs were labelled as well as measured and analysed by outsiders (the west) as part of an expansionist movement. Though I am focused primarily on the west it must be noted that it is not entirely at fault here as other 'outsiders' have also contributed to the naming of world religions, as we have seen above this also fell to non-western elites as proposed by Fitzgerald (2000, 30). One such example is Shinto which is supported by Cantwell Smith who writes:

The term itself [Shinto] does not go back far enough, in those early days, what modernity has called the indigenous religion of Japan had no name. In fact, the word 'Shinto' is not itself Japanese. The modern Japanese equivalent (*kami no michi*) is a translation of this term, which comes from China. It was a phrase that foreigners introduced, to designate the traditions of the natives and to discriminate these from their own cultural norms. (Cantwell Smith 1962, 70)

Harrison has a bit more to say about outsiders and their influence on indigenous belief but more importantly how it is tied to the creation of the phenomenon 'religion' and 'religions'. He writes that "Increasingly this term [religion] came to be an outsider's description of a dubious theological enterprise. Along with 'religion' came the plural 'religions—the Protestant Religion', the 'Catholic Religion', 'Mahometanism', 'heathen religion', and so on" (Harrison 1990, 1). In other words without the understanding of Christianity as a 'religion' we could not have other religions as there was no concept of 'religion' or at least the 'religion' that we know of today before the birth of Christianity, this is of course covered quite extensively by Dubuisson who in his *The Western Construction of Religion* has dedicated a great deal of time to this very concept. He poses three questions related to this very topic in his first chapter.

--Is Christianity the special form taken in the West by something that has always existed and that similarly exists elsewhere, if not everywhere, namely religion or the religious phenomenon? (Dubuisson 2003, 9)

--As the legitimate daughter of Christianity, is religion not rather an element wholly unique to Western civilization, one of its most original creations? (Ibid)

--Should we not, moreover, go somewhat farther and ask whether religion is not effectively the West's most characteristic concept, around which it has established and developed its identity, while at the same time defining its way of conceiving humankind and the world?(Ibid)

One may ask the question as to why these beliefs as well as naming conventions have been primarily influenced by 'outsiders'? Keeping the above in mind can give us some indication as to at least one of the multifaceted answers to this question. If what Dubuisson suggests is true,

and religion did not exist before Christianity it is not surprising that the creators of this phenomenon would label other beliefs and practices that they deemed similar to their own, 'religions'. After all the view emerged that the all loving God revealed himself in some nonChristian forms of life, practice, myth, and ritual (Fitzgerald 2000, 31). That is not to say that the existence of other religions was just accepted, nor was the term 'religions' easily adopted by the Christian west as there was a great deal of debate surrounding these issues, primarily caused by the fact that in the eyes of the imperialists some civilizations were more civilized than others. This was in many ways reflected in their religious practices. The crisis of faith came with the question of how can some religions be more advanced than others? In other words how was it that some foreign religions reflected similar beliefs and practices to Christianity while others did not?

It is easier for us in the 21st century to see things as they may have been rather than as they were, but with that said, we also have hundreds of years of research into the subject of the history of religion to fall back on, and this can also help us to put the pieces together; so from our vantage point we can more easily see that there are many reasons as to why foreign religions may have appeared to the West in this way. For instance, many foreign elites patterned their religions to appear more like Christianity perhaps to preserve customs that may have otherwise been made obsolete, or to appeal to the west so that they would be more accepting of their religion (Fitzgerald 2000, 30). There is also the possibility that they were merely trying to please their new conquerors, as is further suggested by Fitzgerald (Ibid). The truth of the matter is that all of these reasons could have been possible, however for the sake of keeping with the researchers' golden rule, and that is not reading into this anachronistically (by not basing this purely on our assumptions) it is safe to say that many of these ideas are possible. It also helps our case that Fitzgerald has commented on the fact that foreign elites did have something to say about how their religion was perceived and the possible reasons for this, he writes that:

Such confrontation [within missionaries] led to mutual self-definition, a dialectical process, though dominated by the West. From this increasingly tense confrontation in countries such as India, Sri Lanka, Japan and so on emerged the notion that non-western societies must have (or must invent) some indigenous equivalent to Christianity, as it was itself being defined within the evolving context of western society. The literate elites of non-western societies attempted philosophically and juridically to invent religions and to coin from indigenous concepts an appropriate word (in India it was dharma; in Japan shukyo).(Ibid)

Though he does not go into a great amount of detail as to all of the reasons for this one can gather from the example presented that there was perhaps an element of religious preservation involved in this process; after all Dubuisson informs us of the fate that befall those civilizations that were unable to stand up to the western invaders; "this was a rude blow to fragile cultures that had scarcely come onto the stage of universal history" (Dubuisson 2003, 115). In light of

Dubuisson's comment this is also proven by the fact that some 'religions' exist where others no longer do.³ Furthermore, Harrison provides us with evidence to suggest that the West's 'discovery of religion' raised many theological and philosophical questions. That is to say that although many Christians believed that knowledge of God was universal the fact that there were so many discrepancies as well as disparities in these newly discovered religions (that is that some did not express knowledge of God) to a civilization like the West, that based a great deal of its identity on Christianity and therefore the existence of God, this was unprecedented and unfathomable; the problem it raised was if God was omnipotent and ubiquitous (as he was known to be) how was it that not all cultures had an understanding of him?

To many of us in the 21st century this is not a major issue, but for those in the 16th to 18th century this was verging on a mini-crisis at least in the theological circles, because the fact that not everyone had knowledge of God's goodness and grace, especially in those religions labelled "animal religions" (Harrison 1990, 44-45), contradicted if not the existence of God then his omnipresent and omnibeneficent nature. That being the case, primarily English erudites found a way around this; they blamed this disparity on the "Platonic interpretation of the Fall" Harrison explains it in this way:

'Animal religion' must be understood in the context of the Platonic interpretation of the Fall. For the Platonists, the Fall meant primarily a fall into the material world of sensuality. Reason, which was essentially spiritual in nature, could survive the Fall intact only to the extent that it was not subjugated to lower material desires. When that spiritual, religious faculty was overcome by the material, animal religion was the result. The Cambridge groups or at least some of them, could therefore agree with the reformers that the Fall had been the ultimate cause of religious diversity, without being committed to the view that fallen *reason*, and natural theology based on that reason, were at the heart of false religion. (Harrison 1990, 44).

We get a general idea from the excerpt that the *fall* was an explanation for many of the questions raised above; especially those concerned with the omnipresent nature of God. It also provided the Western mind with the logic needed to justify God's existence in a world that was so diverse and filled with 'foreigners' who were unaware of God's omnipotence and benevolent nature. With that said, we must be advised that this can potentially take us into some murky waters where anachronistic readings are concerned, that is to say that it is easy to read our interpretation into what these Platonists may have thought rather than what they did; however

³ The full quote is as follows: "At a single stroke, imperialism and colonialism were equally justified and even, with the impetus of missionary activity, received an unanticipated moral guarantee. Under the cover of bringing progress and civilization, it was the vast process of universalization and would be completed by giving it good measure, along with religion, its highest expression or form. This was a rude blow to fragile cultures that had scarcely come onto the sates of universal history. Most of them died of it; other have been subjugated and deformed" (Dubuisson 2003, 115).

the fact remains that all of these concepts had some influence on how the West constructed the 'world religions'.

With that said, there are a few points that need to be highlighted from the evidence presented above. The first is that we are no longer presented with a mere term to denote inferiority, like 'animal' and 'low' (used to refer to religion) but are presented with a concept that enforces this inferiority. In other words, those that "fell" the furthest were those that completely forgot about their creator God. Furthermore, it provides us with some more evidence as to another possible motivation for the spreading of Christianity, as it may have been seen as a means, by some, to save these souls from complete darkness, by refamiliarising them with knowledge of their creator's true nature, love, and benevolence. This is suggested by Asad who writes that, "...the European wish to make the world in its own image is not necessarily to be disparaged as ungenerous. If one believes oneself to be the source of salvation, the wish to make others reflect oneself is not unbenign..." (Asad 1993, 12). That is not to say that all of their motives for spreading their beliefs were benevolent. It is likely that they also found foreigners' lack of knowledge as an excuse to influence and conquer indigenous peoples who they deemed inferior and primitive. Using a memorable quote from Eddie Izzard we in the west "...stole countries with the cunning use of flags" (*Eddie Izzard's: Dress to Kill*, 1999). Though this may seem like a quote from 'left field' it has some significance as it points out a rather satirical example of our very imperialistic and superior attitude in dealing with countries that we deemed primitive; and we were able to do so through our technological superiority, as well as Christianity which we saw to be a cultural advantage. Dubuisson is strongly in favour of this idea as we have seen above where he writes that:

At a single stroke, imperialism and colonialism were equally justified and even, with the impetus of missionary activity, received an unanticipated moral guarantee. Under the cover of bringing progress and civilization, it was the vast process of universalisation that would be completed by giving it for good measure, along with religion, its highest expression or [of] form... (Dubuisson 2003, 115)

That is not to say that religion is the only reason for expansion, or for that matter the only strategy used for it, as both Fitzgerald and Asad provide us with other reasons. Fitzgerald states that "There were many different levels of European expansionism...imperialist often justified their intentions in non-European societies by representing themselves as liberating peoples from the control of undemocratic local elites and from superstition" (Fitzgerald 2000, 30). With that said we cannot deny the fact that the spread of Christianity was a popular strategy and in many ways a decent justification for our actions; which is still evident in the modern world; especially if we are to believe the evidence so far presented that points to 'religion' as a primarily Christian construct. However despite the abundance of strategies and

justifications for global expansion it is crucial that we remain aware of the major role that Christianity played in the West's world domination; a domination that coloured how we would see other civilisations to come, and how they would inevitably see themselves. This is supported by Asad who writes that:

To secure its unity--to make its own history--dominant power has worked best through differentiating and classifying practices. India's colonial history furnishes ample evidence of this. In this context power is constructive, not repressive. Furthermore, its ability to select (or construct) the differences that serve its purposes has depended on its exploiting the dangers and opportunities contained in ambiguous situations (Asad 2003, 12)

That is not to suggest that the West has as much power presently over the rest of the world as it did during the Renaissance and early modern period, but the influences that it has had can still be felt to this day. We can see this reflected in our modern attitudes towards different cultures but also in our understanding of the world religions, we need merely to return back to the Dawkins' example presented earlier where he comments on the fact that he may see certain moral obligations differently if he were a 'cultural Muslim'. This idea of the West gaining power through religion is better explained in the writings Asad who writes that:

From the point of view of power, mobility is a convenient feature of the act subsumed, but a necessary one of the subsuming act. For it is by means of geographical and psychological movement that modern power inserts itself into preexisting structures...meanings are thus not only created, they are also redirected or subverted--as so many novels about indigenous life in the colonies have poignantly depicted (Asad 1993, 11)

The point he is trying to make is that the west has for hundreds of years used religion as a means to subjugate, and also classify peoples, as well as in many respects make the world in its image, and in many ways it does this through manipulative methods, by 'inserting itself into pre-existing cultures' as well as 'subverting' and 'changing' cultures to fit with its own (Ibid). We can see the influence of imperialistic attitudes expressed not only in the Fairbarin example presented earlier in this section, but also in Cantwell Smith's opinions on the common understanding of religion, or at least the common understanding of religion in the West (see his four sense model). Asad presents us with additional evidence of the West's attitude toward the foreigner or what was often referred to as the 'savage', he writes that "It is often said that the Renaissance 'discovered man' but that discovery was in effect a psychological reconstruction of European individuality...The accounts of savages by explorers returning from a man whose kinship to Christian Europeans, was highly problematic. Some writers even held that he was not quite human" (Ibid 20). That is to say that it was through a very European attitude that emerged quite strongly during the European Enlightenment that resulted in how we in the West would approach, understand, measure, and evaluated non-Western traditions to come (Ibid 200).

We have looked at many reasons, both good and bad, behind imperialism and its connection to religion; however, the question that seems appropriate to ask here is what made Christianity so unique in this respect? More to the point, what was it about Christianity that made it such an intrinsic tool for global domination? The answer to these questions lie in its earliest doctrines; and it is fair to say that this attitude was perhaps driven by the unique ideologies that can be found there; primarily the unquenchable desire to share with others the everlasting and unconditional love of an omnipotent being, God. Of this Dubuisson states:

Because Christianity is characterized by its strict monotheism and by the privilege relationship that it sought to establish between humanity and its unique God, theology has always occupied a central place in it. The step from a universalist goal to the spirit of conquest is probably no longer that which leads from doctrinal rigor to intolerance. Thus we see in the West these dogmatic, conquest-orientated tendencies taking form both on the intellectual level and on the institutional level, in a Church whose power and hegemony they reinforced. (Dubuisson 2003, 104)

In analysing the history of Christianity in the West we can in many ways see how this sect of Judaism managed to spread throughout the world and drive the west in its global domination. That is that it was a belief that was not limited to only a select cultural group of people, which had been the case before its birth, but rather one that accepted individuals of all walks of life and ethnicities; and as followers of this doctrine it was their duty to spread this 'word' to the world, especially to those who would not have the opportunity to hear it otherwise. Dubuisson attributes the origins of this message to Saint Paul. He writes that:

Saint Paul's choice, reaffirmed without any reservation or the least doubt at the very beginning of the Letter to the Romans, was tantamount, as we all know, to proclaiming the objective and asserting universal claims of Christianity, summoned by this incomparable ideological stroke to transcend the boundaries of differences, ethnic as well as cultural, that until then had always limited the diffusion of ideas. Saint Paul was obliged, as he himself said, to propagate the message of Christ to all men, whoever they were, to the very ends of the earth. (Dubuisson 103)⁴

Though the need and desire to help others establish a decent relationship with an all loving god, was a major part of the Christian doctrine, using it as a means to control and conquer indigenous peoples was not always a part of its *modus operandi*. That is to say that, as our attitudes and understanding (which we know to be in constant flux) has shifted through the ages so too has the institution itself and its 'configurations of power'. Not only could we see remnants of this reflected in the opinion of the Reformers and Platonists that were presented above but this is also addressed by Asad below:

⁴ The excerpt from Romans referred to by Dubuisson is the following: Paul, a servant of Jesus Christ, called to be an apostle, separated unto the gospel of God, **2**(Which he had promised afore by his prophets in the holy scriptures,) **3**Concerning his Son Jesus Christ our Lord, which was made of the seed of David according to the

The configurations of power in this sense have, of course, varied profoundly in Christendom from one epoch to another--from Augustine's time, through the Middle Ages, to the industrial capitalist west today. The patterns of religious mood and motivations, the possibilities for religious moods and motivations, the possibilities for religious knowledge and truth, have all varied with them and been conditioned by them. Even Augustine held that although religious truth was eternal, the means for securing human access to it were not (Asad 1993, 35)

We begin to see a transformation take place in the West's relationship with religion when a shift occurs from a focus on the church to a focus on one's life, and one's personal relationship with god and his works. On this Smith writes that, "...in the modern period...it [religion] has as we know become a question of very major importance. This begins with the Renaissance and expands with the Reformation, changes with the Enlightenment and develops in the nineteenth century" (Cantwell Smith 1962, 32). It was during the reformation that we began to see more of the concept that we recognise as religion coming into its own, so to speak.

However, it was not until the seventeenth century where we see a glimmer of the more recognizable concept of 'religion'. Asad states that... "a more important reason lies in the shift in attention that occurred in the seventeenth century from God's word to God's works. 'Nature' became the real space of divine writing, and eventually the indisputable authority for the truth of all sacred texts written in merely human language (the Old Testament and the New)". Harrison tells us that the seventeenth century saw the rise of impersonal and objective religion rather than personal and subjective as we see in the later Middle Ages (check reference here) (Harrison 1990, 1). This is quite different than the 'religion' presented during the Reformation that focused on one's personal relationship with god, the

flesh; **4**And declared *to be* the Son of God with power, according to the spirit of holiness, by the resurrection from the dead: **5**By whom we have received grace and apostleship, for obedience to the faith among all nations, for his name: **6**Among whom are ye also the called of Jesus Christ: **7**To all that be in Rome, beloved of God, called *to be* saints: Grace to you and peace from God our Father, and the Lord Jesus Christ (*King James Version* <http://biblehub.com/romans/1-5.htm> accessed at 13:25 on the 26th of June 2013).

Enlightenment saw our relationship with god changing from the realm of the intangible to that of the tangible. It was becoming an object of study, rather than contemplation, fitting more with the scientific mind-set of the age. This is most clearly reflected in the works of Harrison who informs us that it was during the sixteenth and seventeenth centuries where we see an interesting shift in our the West's understanding of religion, as religion opened itself up to the intelligible rather than the unintelligible. That is that it became a subject of study and adhered to 'rationalist methods of investigation' (Harrison 1990, 2) rather than primarily relying on belief and faith. He informs us that this change resulted in three distinct ways of

understanding nature which gave rise to three “discrete interpretations of religion and the religions” in the seventeenth century (Harrison 1990, 6). The first being natural order as opposed to the supernatural, that is “natural religion is the result of human sin and stands in opposition to “revealed” or supernaturally based religion” (Ibid, 6). That “nature is another mode of divine operation...here the natural is not opposed to the supernatural, but rather complements it”; and finally the third notion that appeared later in the Enlightenment the concept of the “laws of heaven and earth” which “ultimately came to admit investigation without any reference to the divine” (Ibid). It is here where we begin to see a complex relationship forming between ‘religion’ and the phenomenon that we will come to know of as science.

What the above demonstrates is that the concept of religion is a contested category because of the different factors that influenced it. It is not as simple as understanding religion as an isolated concept with set criteria or definitions, as we have discovered there were not only imperialist and political motivations behind the spread of Christian ideals throughout the world, but many other factors as well. As has also been pointed out, much of how we understand ‘religion’ is also manufactured by the academy to create a legitimate *sui generis* subject of study when in fact ‘religion’ does not ‘standalone’ and therefore cannot be understood effectively without drawing attention to its complex and ever evolving history as well as its fluidity. This is further supported by J. Z. Smith who writes that, “Religion is solely the creation of the scholar’s study. It is created for the scholar's analytical purposes by his imaginative acts of comparison and generalization. Religion has no independent existence apart from the academy. (Smith 1982, xi). However, it is not only ‘religion’ that suffers from gross misinterpretation. Science is often at the ‘receiving end’ of this misunderstanding; and like ‘religion’ it too is a complex phenomenon whose changing dynamic through history is often ignored. As an extension of the problems with the interpretation of both ‘religion’ and ‘science’, our understanding of the science/religion relationship is also flawed. This is illustrated by Brooke who writes that “[the relationship] is what different individuals and communities have made of it in a plethora of different contexts” (Brooke 1991, 321). We will look at this rather complex association in the section that follows.

Chapter Two: The Gathering of the Clouds

The History of the Science/Religion Liaison (the Crux of the Matter)

We have in many ways spent an entire chapter looking at the complicated discourse and phenomenon that is religion and it is important that if we are to look at the relationship between both science and religion in the 21st century then we should spend some time on religion's 'rational and qualitative' partner within this pairing, science. I say rational and qualitative not to degrade religion but to emphasise a point. That is the rather unfair assumption that often accompanies our thoughts on this relationship. Science is very often seen as the more factual, practical, rational, and testable pair of the two and can from time to time be regarded as the more reasonable and sensible younger sibling of religion; whereas religion is often regarded as irrational, quantitative, and based on non-testable hypotheses, thoughts and emotions. Because of this, religion is often looked down upon by many individuals as an unintellectual and often naïve way of dealing with life events and the universe. This is supported by Harrison who states that "it is common to hear its chief advocates claiming that science and religion represent mutually incompatible worldviews, science the form is the embodiment of reason and the latter of dubious and credulous faith" (Harrison 2010, 2).

It appears that this way of thinking has been cultivated from the Post-Enlightenment. As is illustrated by Asad who writes that "...the human condition is full of ignorance, pain and injustice, and religious symbols are a means of coming positively to terms with this condition...[religion is] a more primitive, a less adult mode of coming to terms with the human condition" (Asad 45-46). This view is still held by many in the 21st century. An example of this can be found in the work of American economist Bryan Caplan who states his reasons for finding insult in non-religious practices (economic trends in this instance) being called religious:

Why is it an insult? There isn't any nice way to answer, so I'll be blunt. It is an insult because the way that people form religious beliefs is so intellectually irresponsible that their conclusions are almost guaranteed to be false. People accept their religious beliefs with little or no evidence; accept religious beliefs that are contrary to the evidence; accept religious beliefs without studying competing views; are certain about religious beliefs that are dubious at best, and accept their religious beliefs not because they are intellectually compelling, but because they are emotionally comforting; Forming nonreligious beliefs in a religious way is *irrational* because forming *any* beliefs in a religious way is irrational. (Caplan, Bryan <http://econfaculty.gmu.edu/bcaplan/ldebate.htm> accessed by author July 27th 2013)

Though he is arguing primarily from an economists' perspective, and states that he himself is not religious, his attitude is a rather good example of the effect that the false notions and separation of 'science' and 'religion' has had on certain individuals mentality towards science

and religion, with religion often paying the ultimate price because of its perceived irrational nature. This is in many ways made clear in Caplan's end statement where he suggests that religion in itself is nothing more than a fantasy, has no basis in reality, and that having a belief in something as disprovable as God is in fact an engagement in a delusional and irrational fantasy. One cannot help but to sense the hostility in his comment, "I'm right, it's not hard. Yes, religious beliefs are irrational, but they are so divorced from reality ...but the overwhelming majority of the faithful open their eyes and face the fact that it's crazy to bet your life on fairy tales" (Ibid). We can see this same mentality reflected in the work of Dawkins who uses what he refers to as the "Binker phenomenon" as a means to illustrate the relationship that one has with an imaginary friend, in this case that imaginary friend is God. He writes that:

...it brings me as close as I shall probably come to understanding the consoling and counselling role of the imaginary gods in people's lives. A being may exist only in the imagination, yet still seem completely real to the child, and still give real comfort and good advice. Perhaps even better: imaginary friends—and imaginary gods—have the time and patience to devote all of their attention to the sufferer... (Dawkins 2006, 391)

Though both Caplan's and Dawkins' tones are harsh (Caplan more than Dawkins which is surprising) and frankly patronising, their arguments are in many ways erroneously subjective, as they are not based in fact. However there is a reason for illustrating all of these points. For a start, it provides us with a number of helpful hints and provisos when treading the waters of the science and religion debate. The first is that it points out the fact that there are many critics within this debate who are in fact incredibly scornful of religion. It must be noted however that this is not a modern quandary; individuals like Ludwig Feuerbach and also Friedrich Nietzsche held critical views of 'religion'. For instance Nietzsche in his "death of God" conceptualisation questioned the significance of the human relation with the Judaeo-Christian God in the wake of a secularist society. Stanley Rosen has this to say about Nietzsche's concept, "...Nietzsche transfers to mankind the power assigned by the Judaeo-Christian God [creation]" (Rosen 1995, 11). In other words it is man that created God not the other way around, and Nietzsche in many ways questions man's deification in light of this, and in a world that appeared to 'no longer need' God. Ludwig Feuerbach in many ways also saw God and religious phenomenon not only to be of anthropological significance but also of human design and creation:

We have shown that the substance and object of religion is altogether human; we have shown that divine wisdom is human wisdom; that the secret of theology is anthropology; that the absolute mind is the so-called finite subjective mind. But religion is not conscious that its elements are human; on the contrary it places itself in opposition to the human, or at least it does not admit that its elements are human. The necessary turning-point of history is therefore the open confession, that the consciousness of God is nothing else than the consciousness of the species; that man can and should raise himself only above the limits of his individuality, and not above the laws, the positive essential conditions of his species; that there is no other essence

which many can think...love and adore as The *absolute*, than the essence of human nature itself (Feuerbach 1957, 270)

What all of the examples above provide us with is evidence that suggests, despite the harshness, danger, and subjectivity of these views, that this type of criticism does exist and that it has existed for some time; and that it is held by many individuals, even those (like scholars) who we would expect to be more open-minded and objective. This intolerance is evidenced by Michael Shermer who states that “I wince when I hear religious people referred to as ‘faith-heads’ and ‘clowns’, as being less intelligent or poorly reasoned, or worse, deluded” (Shermer 2008, 49). It goes without saying that Caplan and Dawkins, are not the only critics of religion who see it in this way, need I draw attention to Daniel Dennett, Sam Harris, Victor J. Stenger and Christopher Hitchens to name only a few of the most evangelical critics of our time (pun intended). Furthermore, and perhaps more importantly what these criticisms of religion illustrate, is a specific ideology and mind-set that can in many ways be assumed to be a lingering concept from a much earlier age that still threads its way dangerously through our modern understanding of religion. This forces a wedge between science and religion, clearly demonstrating that in order to truly understand where we stand in regards to science and religion today we are aware of where we stood in the past.

Regardless of our leanings here we must be aware of the fact that these beliefs exist and that they are unfortunate obstacles that must be navigated carefully when assessing science and religion systematically, and objectively. Though there is no one reason or cause that resulted in us thinking this way about religion, Asad mentions one of the many possible causes of our thoughts on science as ‘rationally superior’ to religion. He believes that it is down to the fact that ‘religious beliefs’ are more ‘rigid’ than secular practices (Asad 1993, 235). With that said however, he follows up this suggestion with a significant point. He suggests that despite his ruminations, there is no real evidence to support this, as one of the key reasons for our belittling thoughts towards religion suggests in many ways that there are many factors; and this becomes increasingly more obvious the more we look at the history of the relationship between science and religion. I tend to agree with him here, as limiting our reasons for believing science is more superior to religion by only one or two factors, risks reducing science and our thoughts on it to a simplistic and reductionist ideology (as we have with religion). In pursuing this line of thinking we would potentially be holding to the misconception that science is not a complex concept and therefore is not entitled to a fair and objective investigation into its changing history and changing definition, which would be a false and extremely problematic approach.

The examples above already illustrates the importance of understanding the history of science in relation to religion, especially as the evidence seems to suggest that the negative view of religion at present has been influenced by an older ideology. That said I am not suggesting that other factors have not given rise to these set of modern beliefs as a great deal of ‘new atheism’ has emerged out of a reaction towards Christian values that have sprung up in America during the early ‘noughties’. An example of this ‘new atheism’ so to speak is presented to us by Harrison who suggests that in recent years there has also been an upsurge of what he refers to as “aggressive, scientifically motivated atheism” (Ibid). One example of a “new atheist” would be Richard Dawkins’ (who is mentioned above) who in 2006 wrote *The God Delusion* which discredits the existence of a universal creator. Harrison believes that this phenomena has been brought on to counteract the conservative religious movements in the United States that reject evolution and other scientific theories, but more significantly he believes that this has been caused by the historical thesis that surrounds the relationship between science and religion, one that he says “saw them at “loggerheads” (Harrison 2010, 2).

What he is referring to here, it seems, is the Draper-White hypothesis that has been a dominant factor in our misunderstanding of the relationship between science and religion. Not to mention it may have been one of the causes as to why religion and science are viewed in the ways presented above. So what is the Draper White opinion that so coloured the way we see science and religion? Harrison sums it up as a strategy for promoting the politics of “science” over that of religion. He writes that:

Largely as a consequence of the efforts of those who sought to promote the political fortunes of “science,” there emerged the historical thesis of an ongoing science religion conflict—a view epitomized in the now unfashionable histories of Andrew Dickson White and John Draper. A good sense of the general tenor of these works can be gleaned from their titles, respectively, *A History of the Warfare of Science with Theology in Christendom* (1896) and *History of the Conflict between Religion and Science* (1875). The enduring legacy of this group, however, has been the perpetuation of the myth of a perennial warfare between science and religion (Harrison 87, 2006).

Additionally, this is supported by Lindberg who informs us further that a great deal of damage was caused by scholars like Draper and White who coloured the history of science and religion with a rather militant brush, by presenting a rather fractured as well as aggressive, and frankly false, relationship between science and religion; painting religion as the proverbial ‘comic villain’ of the ‘crusading’ science. He believes that their view is in many ways to blame for the rather negative ‘worldview’ (although this is somewhat of a problematic argument in itself as it is important that we do not base other world views on our own Western view) of religion to this day. He further points out that this opinion still holds sway with the general public, to

this day, commenting that “in popular opinion the Draper-White view still prevails” (Lindberg 1986, 20). He is of the opinion that “Draper shaped what has become a widespread (probably the dominant) interpretation of the relationship between science and the early church: that the church, if it did not entirely stamp out science, surely retarded its progress” (Ibid 19).

Of greater concern to Lindberg is the fact that this opinion has also held a great deal of influence in the study of the history of science and religion, to the point that it has only been in the last 20 years or so that this hypothesis as well as the scholarship that it encouraged, has been recognised as a danger to and as a part of scholarship over the last 20 years (Ibid 20). This is also supported by Harrison (2006) who notes that this misinterpretation is presenting scholars with a great deal of uncertainty when approaching or at least evaluating the past relationship between science and religion; as they have to be even more careful in their interpretation of the past. Despite what Harrison and Lindberg say in regards to how this idea is now taken as problematic within the history of science and religion, this mind-set still prevails in modern scholarship. For instance, the historian Charles Freeman bases a whole body of work on blaming Christianity for the suppression as well as burying of Greek natural philosophical works for over one thousand years, what he describes in the very colourful phrase “the closing of the Western mind”, he writes that:

One finds combination of factors behind “the closing of the western mind”: the attack on Greek philosophy by [the apostle] Paul, the adoption of Platonism by Christian theologians and the enforcement of orthodoxy by emperors desperate to keep good order. The imposition of orthodoxy went hand in hand with a stifling of any form of independent reasoning. By the fifth century, not only has rational thought been suppressed, but there has been a substitution for it of ‘mystery, magic, and authority’ (Freeman 2003, xviii).

Not only was this view responsible for pitting religion in many ways against science but it was also potentially responsible for influencing the belief that “religion” detested “science” as it was not only a hinderer of innovative progress but suppressed freedom of thought and the spreading of ideas; whereas science was the ‘golden child’ and deemed as not only being the more rational of the two, but it was given the mantle as a concept that encouraged freedom of thought, expression, and as we saw in the previous chapter, truth.

Though this theory is perhaps one of the more prevailing reasons for the false impression that we have of this relationship that emanates to this day, Harrison also suggests that there were a number of other developments that also fed into this myth of conflict between science and religion. One such development is what Harrison attributes to the “emergence of the scientific profession” which he believes “meshed neatly with progressivist conceptions of history” (Harrison, 2006, 88-89). In other words a belief was held in the nineteenth century that it was

an age of progression, and a movement from the more primitive state of being that dealt with the unprovable (like religion and the supernatural) to one that was of a higher level of development 'the scientific' (Ibid, 89), once again portraying religion as a harmful ideology, in many ways religion become the 'yin' to science's 'yang'.

Harrison suggests that this form of thinking also came with other unforeseen consequences, but all leading to the same outcome, the denigration of religion and the rise of the 'scientist-cum-super hero', or what he describes as "the great man theory of history"(Harrison 2006, 88). That is that it was the scientist that stood for 'truth, justice and the [insert country here] way' and fought against the evil suppression of the church. An example of such a person is Galileo who at one time or another represented the 'pin up boy', so to speak, for this 'great man' theory; as he was seen as fighting against a Church that was stunting the 'light of truth', which was granted through science not religion. Harrison has this to say about "the great man theory":

Moreover, with the growth in popularity of the "great man" theory of history, there arose a tendency to identify heroic figures in the past, credit them with great achievements, and pit them against unyielding institutions and dogmatic traditions. The demise of natural philosophy and the emergence of science...'was marked by the reification of heroic discoverers and prized techniques'...'Galileo versus the Inquisition' is the stock example here. This mode of presenting the history of science is still today the one that most excites the popular imagination, and indeed not all scholarly historians are immune to its attractions (Harrison 2006 88-89)

However, as with so many things in history this is only one interpretation of the past and in many ways not one of the truer interpretations of what is referred to as the 'Galileo Affair', as Galileo's relationship with the church was far more complicated than this one interpretation allows. Wisan gives us a glimpse into Galileo's rather fiery relationship with the church:

Immediately after his discoveries Galileo began a campaign to convert the Church to the Copernican system. This soon gained him the enmity of a number of clergy, especially at the lower level of the hierarchy, who found his behaviour intolerable (Wisan 1986, 477)

With all of this said, it is however safe to assume that despite the many possible reasons and influences as to why we come to think of the relationship of science and religion in this rather problematic way, it comes with the unfortunate side effect that religion is often taken less seriously than science, as is clearly demonstrated above. Therefore, we cannot escape from the fact that it is an unfortunate and rather dangerous artefact of not only a more antiquated time, but of a 'reimagining' of the past that still permeates, influences, and colours our thoughts and in many ways our methods of dealing with science and religion. This is apparent to the extent

that fields of study have sprung up to tackle many of the questions associated with this problem. Alexander writes that:

I think that it would be fair to say that academic science-religion studies have undergone a renaissance over the past few decades...Today there are a plethora of books, conferences, chairs on subject in major universities, degrees offered, plus research centres such as the Faraday Institute for Science and Religion in Cambridge...An important consequence has been a complete reassessment of historical literature on the relationship between science and religion (Alexander 17, 2008).

There are a number of reasons to mention that our way of thinking about science and religion (as a debate) is primarily a recent construction. The first is because it is important that we are aware that this is only a recent development, suggesting that like religion, science too has a history and has changed through the ages. It is all well and good to suggest that science is in many ways more rational and objective but it is also important that when engaging with this debate that we are aware of all of these factors, not only the history of science and religion as separate concepts, but also how the science and religion relationship has changed as well as has been reinterpreted as well as misinterpreted through the ages; ever emphasising the fact that when looking at this relationship we are dealing with something that is relatively complex.

To elaborate, not only is it important that we understand their interaction and their changing dynamic, but also the transformation of terms and concepts through the ages. There are a number of reasons for doing this. The first is that in many ways this rather systematic approach offers a fair and objective understanding of science; as it is important that we understand the history of a concept and its changing modes in order to understand its present incarnation. For instance, if we are to argue that chemistry is the same as it was 400 years ago, then we would be greatly mistaken, as we would be ignoring the fact that alchemy was in many ways a precursor to chemistry. Therefore, if we make this mistake and presume that chemistry is the same as it was in the Middle Ages or even as late as the 18th century we risk anachronistic readings and assumptions of chemistry in the past. Additionally we also run into many complications if we were to assume that chemistry and alchemy are the same because we may harbour the wrongful view that alchemy is nothing more than an earlier version of chemistry rather than a phenomenon with a real past and evolution.

Harrison points to the fact that this is often a problem with studying the history of the relationship between science and religion, he writes that “Consideration of the historically conditioned nature of ‘science’ and of ‘religion’ bring to light a number of unspoken assumptions in some mainstream science-and-religion discussions and highlights the need for serious revision of common approaches to this issues” (Harrison 2006, 81). Mainly problems associated with what has been pointed out above in regards to our understanding of ‘science’ in the past, that is to come to terms with the fact that science, like religion, is not a static concept and it that it has not always been as we understand it in the 21st century.

This is further supported by Margaret Osler who writes about the problems that arise from following such assumptions and standing by the idea that the “disciplinary boundaries [between science and religion] have remained static throughout history” (Osler 1997, 91). This is supported further by Brooke who writes that:

...problems arise as soon as one enquires about the relationship between ‘science’ and ‘religion’ in the past. Not only have the boundaries between them shifted with time, but to abstract them from their historical context can lead to artificiality as well as anachronism (Brooke 1991, 16)

In order to avoid problems such as these and deal with these issues effectively, we need to be aware of the fact that like religion our understanding of what science was and is (which is often and wrongfully brought up in this debate as a means of justification for showing why religion and science should “get along” today) takes many factors for granted. That is not to mention that sadly this thought process is often coupled with a rather anachronistic reading of the past which distorts our perspective of the relationship between science and religion. An example of such anachronistic and rather problematic thinking can be found in the works of Heninger who refers to the 18th century as a time when both ‘science’ and ‘religion’ were at odds. He writes that “Science and religion were by then at odds and any *modus vivendi* which attempted to encompass them both was bound to seem laughable” (Heninger 1974, 33).

There are a number of obvious problems that arise from this comment. The first is that by referring to ‘science’ and ‘religion’ as being at odds Heninger is assuming and also implying that there was some sort of relationship between science and religion in the 18th century as there is today. There are a number of difficulties associated with this hypothesis; the first is that by suggesting this, Heninger is assuming that religion and science were the same in the 18th century as they are today. As we know from our study on religion in the previous chapter, this is not the case for religion. ‘Religion’ was only coming into its own in the 18th century, and it still had a century or so to go before it took its recognisable modern form. So, with this said how could ‘religion’ and ‘science’ be at odds with one another in the 18th century when at least one of these concepts did not exist as we know it today? He makes a similar blunder with ‘science’, by assuming that ‘science’ was also in its recognisable form in the 18th century. By proposing such a notion he is in danger of doing what was warned about above, and that is reducing ‘science’ to a simplistic concept that has no history or modal shift. This cannot be answered sufficiently without some idea as to what ‘science’ (if it can even be called this) existed in the 18th century. Therefore, in order for Heninger’s hypothesis to be remotely correct the ‘science’ that he was referring to as being at odds with religion in the 18th century has to be very similar to our present understanding of it, or it is not ‘science’.

So, how does Heninger’s idea stand up to this fact? Unfortunately for Heninger, in light of current research, his idea falls very short of the mark. Both Simon Schaffer and Andrew

Cunningham agree that the 'birth' of the modern discipline that we know of as science took place in the nineteenth century between 1780-1850; and according to Cunningham the term was coined by William Whewell in 1833 (Schaffer 1986, 413; Cunningham 1988, 385). Long after Heninger's estimation of the 18th century; suggesting that science did not even exist at the time that both 'science' and 'religion' were presumably at odds. Providing more evidence to the fact is Harrison who informs his readers that the term "scientist" was not coined until 1833 (Harrison 2006, 21), suggesting that before that date the concept of science and the "scientist" that did not exist, well at least in the way that Heninger suggests. Before that date the study of nature and the universe (what Heninger seems in many ways to be referring to as a 'pre-science' so to speak) fell into a number of different disciplines that dealt with these questions quite differently. Harrison informs us of this fact when he states that the study of nature in the Early modern period "took place in a number of disciplines" (Harrison 2006, 84). That 'natural history', 'natural philosophy' and 'natural science' for that matter were quite different enterprises in the nineteenth century.

From Harrison's comments there is no inference that there was a separate relationship between science and religion as Heninger seems to suggest. The only indication of a slight relationship between these proposed disciplines is that Harrison presents us with the notion that unlike 'natural science', 'natural philosophy' and 'natural history' had more religious undertones to them. To support this he writes:

Neither were natural history and natural philosophy synonyms for what we now call natural science. Rather, they entail a different understanding of knowledge of nature: they were motivated by different concerns and were integrated into other forms of knowledge and belief in a way quite alien to the modern sciences. The provinces of these enterprises were not coextensive with that of "science" as it was understood then or now...Nowhere is the difference between these disciplines and modern science more apparent than in those religious elements that were integral to the practice of the early modern study of nature. Natural history and natural philosophy were frequently pursued from religious motives, they were based on religious presuppositions, and, insofar as they were regarded as legitimate forms of knowledge, they drew their social sanctions from religion (Harrison 2006, 84-85)

Of importance here is the fact that both natural history and natural philosophy had a close working relationship with theology, but there is no indication, at least from the evidence presented by Harrison that it was the type of relationship that seems to be specified by Heninger. Further highlighting Heninger's supposition, we are presented with even more problems that are raised from his rather anachronistic readings. The most troublesome of which is that through his assumption that both science and religion were at odds with one another in the 18th century, the presumption arises that they must have had some type of relationship beforehand. Whether congenial, harmonious, or co-dependent is entirely irrelevant because in light of the evidence thus provided all of these assumptions would be based on an erroneous reading of the history of 'science' and 'religion'. Further problems that

arise from these misreading is that due to the fact that there are so many uncertainties regarding this relationship, it identifies Heninger's approach as the incorrect approach, because it is based primarily on assumption, interpretation, and lack of sufficient information gathering.

The point that is being addressed here is that in light of the evidence provided many potential difficulties can arise when trudging through the deep dark recesses of the science v religion debates as there are many suppositions, erroneous, and anachronistic readings and interpretations of the relationship between science and religion. That is to say that Heninger is not the only individual that reads anachronistically into the relationship between science and religion. We get a very similar responses from individuals like Barbour, Shaw, Voss, and Joost-Gaugier, to name a few. Another example of this discrepancy is presented by the acclaimed scholar within the field of science and religion Ian Barbour. He writes in reference to science and religion that:

When religion first met modern science in the seventeenth century, the encounter was a friendly one. Most of the founders of the scientific revolution were devout Christians who held that in their scientific work they were studying the handiwork of the Creator. By the eighteenth century many scientists believed in a God who had designed the universe, but they no longer believed in a personal God actively involved in the world and human life. By the nineteenth century some scientists were hostile to religion—though Darwin still maintained that the process of evolution (but not the details of particular species) was designed by God. (Barbour 2000, xi)

We see a great deal of Heninger's methodology echoed within the works of Ian Barbour, and without rehashing points that have already been addressed, the errors in the statement above should be quite obvious to us; ranging from the assumption that science was in fact modern in the seventeenth century and was friendly with 'religion', which we can only assume to be Christianity. As this is the only 'religion' he seems comfortable with addressing fully in his religion and science texts; to the point that it seems to be the only 'religion' in existence; which from Dubuisson's (2003) point of view it inevitably is, although Barbour seems oblivious to this type of critical evaluation of 'religion'. Furthermore the fact that he refers to 'modern science' as having existed in the 17th century is also highly problematic especially as Harrison assures us (as we have seen above) that the "invention of science as a historical event" did not take place until somewhere between 1780-1850 (Harrison 2006, 86). The evidence provided above, or the lack thereof, is an indication that Barbour is unaware of the vast and complex history of both 'religion' and 'science'; this is assumed by his very reductionist as well as popularist take on the 17th century as not only being the birth of modern science because of its 'Enlightenment connotations' but that it was also the time that religion 'met' modern science. That is to say that in the excerpt above there is an assumption being made that 'science' and

'religion' are concepts that his audience should be familiar with and therefore should take the popular understanding of it at face value.

Another example of a rather anachronistic and subjective reading which can occur within this form of scholarship can be found in and an article written by Angela Voss that looks very loosely at how our acceptance of science has in many ways destroyed the Platonic and therefore very magical imagination that we once had; in many ways demonstrating the opposite ideological form from the ones that we have been dealing with above, that is that Voss sees science and rationalism as the antithesis of imagination and spirituality. That said, this imagining is also as erroneous as the others because of its subjective nature (demonstrating the problems can arise from either camps):

We must surely all agree that the general movement of Western intellectual life since Descartes has been towards increasing detachment of observation, compartmentalised thinking and rational explanation...Modern positivist thought now takes the shadows of Plato's cave to be the 'real' world and reduces his Ideas to mere abstractions. The world beyond the literal becomes shadowy, superstitious mumbo-jumbo, inevitably, as it cannot reveal its meaning in the harsh light of scientific experiment or rational analysis. If we are to teach astrology in Universities, we will have to reclaim our ground, the middle ground in which we delight in mystery with the 'divine enthusiasm' of the neoplatonic *magi*. (Voss, Angela www.skyscript.co.uk/allegory.html accessed by author at 16:00 on July 19th 2013)

There are of course a number of problems with this. The first is that it assumes that Platonism was in fact 'magical' or that it had a magical element to it (whatever that means); this is wrongfully assumed without any evidence or in fact any explanation as to what is meant by this. 2) This statement is made with no evidence to suggest that Voss looked deeply into the changing modes of thought in both science and philosophy or for that matter the life, politics, and events taking place in ancient Greece that may have influenced and coloured Plato's view of the world. Furthermore there is no indication that Voss examined how this 'Platonic' and 'Neoplatonic' image has inevitably shifted through the ages. Therefore it comes across more as wishful thinking rather than something supported by substantial evidence. Furthermore, Voss suggests that we should 'truly delight' in the mysteries of the 'neoplatonic *magi*' but in order to do that surely we would have to be aware that he/she existed and if so what it meant to be a 'neoplatonic *magi*'. Even if we managed to find this information out, how could we then avoid an anachronistic reading of it, let alone apply it to our 21st century ideas relating to 'science' and 'religion'? This is rather reminiscent of Heninger's 'science' and 'religion' comment as it is based on a perceived reality rather than one that is based on factual evidence. Evidence that when presented may have the potential to null and void all that is written above as being nothing more than supposition and speculation.

Although the points I am making may in many ways unintentionally support Voss's point, and that is that the imagination has been replaced by a more scientific and critical methodological scholarship, we would be remiss if we were to base all of our assumptions on our modern interpretations rather than looking at the 'real' story behind what we may believe was factual in the past, rather than what was factual; hence our reason for coming to terms with the complex history of the 'science' 'religion' relationship rather than making false assumptions; as interpretations such as Voss's for instance puts one in mind of a more fanciful and romantic reinterpretation of the past, rather than a realistic and scientific interpretation of it, one that considers all possible factors. More importantly, how can we or in this case Voss, be certain that the way in which our predecessors viewed the world was remotely as we think they did, when all the evidence we have looked at thus far, especially in relation to religion, has seemed to suggest the contrary?

Though this may seem like a rather odd example, the point that I am making is that these readings exist in the science v religion debate, and they are everywhere; and because of this we must remain 'ever vigilant' of the potential problems that may arise from this form of scholarship. That is to say that in knowing this, anytime a scholar brings up the fact that humans were more magical and imaginative at a certain point in history, or that science and religion was 'like this' or 'like that' in the past, alarm bells should ring in the mind of any cautious scholar; as this is a clear example of problematic scholarship because it assumes that not only were we more imaginative in the past than we are now (and that the reason for this is because of our scientific understanding) but it does this without taking any other factors, like modal shifts of understanding, into account.

There are of course a number of problems with these interpretations that have not yet been mentioned, especially in light of the substantial evidence provided that suggests much of what has been exemplified above by these scholars is dangerously unsupported. This becomes even more terrifying when one realises that these studies are available to the public and therefore will be colouring the public's perspective when it comes to science and religion, as scholarship such as this feeds false claims to an awaiting public. This revelation means that not only do we have to take a great deal of what we read within this discipline, so to speak, with a 'pinch of salt' (as is suggested by Harrison above) but we have to in many ways set out to correct the damage that has been done by past scholarship. This can actually be quite a challenge especially when there is so much scholarship out there that is flawed, as we are presented with in the examples above, and is revealed in our section on the Draper-White phenomenon.

For instance we can see similar misreading and disregard of the past in not only the works of those mentioned above, but in the works of presumably acclaimed, reliable and respectable voices in the science/religion community. This includes Peacocke, Polkinghorne, Davis, Reese,

Wilbur, to name only a few; illustrating the immense *gravitas* of this situation. For instance Paul Davies writes that:

Four hundred years ago science came into conflict with religion because it seemed to threaten Mankind's cozy place within a purpose built cosmos designed by God. The revolution begun with Copernicus and finished with Darwin had the effect of marginalizing, even trivializing, human beings. People were no longer cast at the center of the great scheme, but were relegated to an incidental and seemingly pointless role in an indifferent cosmic drama... (Davies 1992, 20-21)

Note the very definitive as well as confident language that he uses here to describe how people in the 17th century viewed the relationship between 'science' and 'religion'. His use of informal words like 'cozy', 'trivializing', and phrases like 'seemingly pointless role in an indifferent cosmic drama' is a very clever use of *pathos* as it makes one feel as though he/she can really identify and sympathise with the 17th century contemporary. However with that said, how is this not anachronistic? How can one truly identify with the 17th century (whomever)? One cannot, and what seems to be highlighted in the statement above is that Davies seems to believe that this is really how they felt. This is extremely problematic not to mention highly generalised as well as anachronistic, as he is assuming this without taking any other factors (like the changing of the science and religion dynamic as well as their complex history) into account. In light of the evidence we have provided he falls quite short of the 'truths' of the matter.

Harrison informs us that many historians are not only aware of the misrepresentations of history in the science/religion question (as has been demonstrated above) but also the anachronistic readings that grip this subject matter, to the point that it is putting many historians of science on edge, so to speak, as they are becoming more and more aware of the problems associated with our interpretation of the past. Harrison writes that:

Over the past few decades, however, many historians have expressed reservations about presumed continuities in the history of science. These reservations have been expressed in a variety of ways, but common to them all is a plea against the anachronistic assumption that the study of nature in earlier historical periods was prosecuted more or less along the same lines as those adopted by modern scientists. (Harrison 2006, 82).

A rather frank example and criticism of this rather anachronistic and traditional way of viewing science in the past is presented to us by Andrew Cunningham who writes that "when we study science in the past, is it science in any meaningful sense" (Cunningham 1988, 365). I would suggest, much like Cunningham and Harrison that this is a question that we must consider constantly when we are engaging in this field of study especially if we are to interpret this relationship in any meaningful and objective way. That is not to say that this is an impossible feat, but it requires a constant awareness and self-awareness on the part of the researcher to question all things in this field; not only the works of others but one's own methodological practices. This is supported by King who states that the researcher must

possess a “more critical and self-reflexive stance with regard to those approaches, presuppositions and categories than has generally been accepted [in the past and present] as unproblematic” (King 1999, 56). This is also supported by McCutcheon who states that “if students....acknowledge this, [and] recognize the inherent limitations of their work...then they will have succeeded in negotiating the essentialist trap...snared by many of their predecessors” (McCutcheon 1997, 212).

The purpose of the above is to demonstrate a number of problems that may arise in the science v religion debate, one of which is forcing our own interpretations onto what we may perceive the past to be without truly understanding the different factors involved in these discursive processes. By viewing past thoughts and ideologies in this way we risk overlooking the many events, factors, fluctuations of thoughts and ideologies, cultural and environmental factors, technological and mathematical advancements, that have not only effected this relationship but have coloured how we understand both science and religion. Therefore in order to propose an objective view of the past it is important that we cover our bases as is proposed by McCutcheon, Asad, Dubuisson, Fitzgerald and King.

As we have seen from the previous chapter, in regards to religion, this is a very important route to take and to apply to our own methodology as considering these factors, or at least being aware that not everything exists in isolation is incredibly important, we will find that this even applies in our understanding of science. Furthermore it is important that we do not only regard science, like religion, as having a history but that when we are relating ‘science’ to ‘religion’ that we are keenly aware of what we are referring to when talking about ‘religion’. That is that this ‘religion’ tends to favour Christianity. This leads to other problems that we must be aware of; that is that if we are referring to Christianity then we cannot ignore the fact that we are looking at this from a primarily Western perspective and comparing two primarily western concepts. McCutcheon informs us that a “long standing European dominance” is found in the field of religious studies, this dominance also makes its mark very strongly in science and religion studies. Examples of this very Western bias can be found in the titles of many books written by respected scholars within this field of study. Examples of only a few such books are *The Mind of God*, *God Made the Integers*, *The Faith of a Physicist*, *The Language of God*, *Paths from Science Toward God* and so on and so forth. What do these all have in common? One ‘monotheistic’ and obviously Christian deity, God.

Therefore before moving onto the subject at hand, if we are to be as objective as possible, it is important as modern scholars that we are aware of the fact that when looking at this debate we are primarily dealing with a Western dominated field and therefore a strong Western bias should be expected as well as critically examined, it is of no use hiding from the fact. If we were to ignore this very crucial point we would be guilty of succumbing to the very same scholarship

that Harrison warns us against when he states that “...[the] fundamental error lay in the assumption that science and religion are categories that can be meaningfully applied to all periods of Western history and, to a degree, the historical development of non-western cultures” (Harrison 2006, 90); a problem that we should strive to avoid in any objective method of scholarship. With that said, though we have had individuals such as Varadaraja V. Raman (2012) and Mehdi Golshani (2012) try to break this obvious norm by comparing science to more Eastern ‘religions’, these come across to the trained eye as clever rhetorical moves rather than provable observations. It must also be noted that when looking at these comparisons these authors are primarily comparing Eastern religions to a primarily western dominated construct, science. That is not to say that there were no other contributors to science and that it did not have a history elsewhere, as a great many scientific and mathematical innovations come from China, the Middle East, India and elsewhere⁵ (this too needs to be taken into account when looking at this more closely); but as is aptly put by Asad as we are dealing with a primarily Western construct ‘religion’ and a debate that surrounds and also tries to justify itself in terms of the very Western construct that is ‘religion’, or more accurately Christianity, it would be a mistake to presently employ this debate in terms of other cultures (Asad 1993, 1).

⁵Toby E. Huff tells us that “from the eighth century to the end of the fourteenth, Arabic science was probably the most advanced science in the world, greatly surpassing the west and China. In virtually every field of endeavour— in astronomy, alchemy, mathematics, medicine, optics, and so forth—Arabic scientists...were in the forefront of scientific advances” (Huff 2003, 48).

In terms of science and Islam, Muzaffar Iqbal tells us that “The Islamic scientific traditions arrived in Europe through translation of essential texts from Arabic to Latin. One of the first texts to be translated was none other than the Grand Shaykh (al-Shaykh al-Ra’is) of Islamic science, Ibn Sina (980-1037), whose name was Latinized as Avicenna.” He also mentions that Avicenna’s (*The Book of Healing*) philosophical and physical sections were translated in the twelfth century and the mathematical and geographical in the thirteenth century. He also mentions among other things that Ibn Rushd’s (Averreos) works were translated in the early thirteenth century. In addition to other Islamic thinkers that made their mark on science, the Islamic world was also responsible for contributing to the West a Platonized versions of the Aristotelian corpus which provided support for pantheism (written by Ibn Sina)...which was later replaced by those of Ibn Rushd, in whose works Europe discovered a more authentic and less Platonized Aristotle (Iqbal 2002, 146-147)

With that said, let us look a bit more closely at the problems associated with this form of scholarship as these must be understood and addressed if we are to treat this subject as fairly and as objectively as possible. At my last count there were at least a couple of glaringly obvious problems with it. The first (1) problem we have already looked at quite extensively above. This is either not taking the history of science and religion seriously, or reading anachronistically into the past, which more often than not results in us (the scholars) putting our own spin on how we believe the past to be or perhaps more accurately and almost abashedly how we *want*

or *wish* it to be. This way of thinking normally consists of some form of fantastical and delusional image of a time that was far greater than our own (in some cases) and in others, far simpler, when the truth of the matter is not that simple. This is especially as we are, in this case, mainly dealing with the changing of ideas and concepts which reflect the times (or should at least) reflect the times in which they were fashionable. Therefore this form of anachronistic reading into the subject at hand must be eliminated if we are to have any worthwhile movement forward into this field and to equally ensure that it has the mileage to carry on as a credible form of scholarship.

The second (2) and perhaps as problematic as the first, as one accompanies and often influences the other, is the Western (Christo-centric bias) that seems to be highly prevalent in this field. As McCutcheon informs us a “long standing European dominance” (McCutcheon 1997, 146) is found in the field of religious studies, and this dominance is sadly also virulent in the science/religion debate. Furthermore, the influence that one has over the other often occurs because we in the West normally project our rather Western (i.e. Euro Christo-centric views) as well as modern ideologies on an undeserving past, which in many ways is not surprising given the fact that according to the current scholarship we have in many ways constructed our history (or at least this history) through our relationship with Christianity. Not to mention (as has already been pointed out) that we in the West have had a tendency through history to understand others through this Christian lens.

This is evidenced by the fact that many of the studies in this field have a strong cultural bias and most often favour Christianity, for one reason or another. As is stated by Muzaffar Iqbal perhaps two reasons for this discrepancy, especially in relation to Islam and science, are because “On the one hand, most Muslim scientists appear to be neither qualified nor interested in this study. Religious scholars, on the other hand, generally know too little about modern science to contribute on their own to this discourse”(Iqbal 2002, 142). He further states that most often than not the literature that has been done in this area is often apologetic in nature, and that although it “attempts to prove that the Qur’an is the word of God *precisely because* (they claim) it contains theories and facts which modern science had only recently discovered” (Ibid), this very rarely results in any fruitful or informative dialogue. In the words of Iqbal “the result of this work, however, is that neither science nor Islam is granted the intellectual integrity each deserves, no genuine dialogue takes place” (Ibid, 143). What I would say in response to Iqbal however is that a great deal of the literature published by Western scholars, in this area, is also incredibly apologetic in nature this is supported by Dixon who writes that “...much academic work in this area has been concerned with the plausibility (or lack of it) of the idea of the inevitable conflict between science and religion. This concern is partly driven by apologetic motives” (Dixon 2008, 15). Furthermore this dominance is not only a result of

the complex history that science and religion had with one another in the past, but may also be related to the fact that the majority of contributors to this field are either white Christian (middle aged) theologians or incredibly vocal and distinguished atheist-*cum*-scientists, with a chip on their shoulders, many of whom still hold to a rather elitist and imperialistic draconian ideology, two names that spring to mind are Richard Dawkins, and John Polkinghorne.

Putting middle aged men aside for a moment, there is also another possibility that must be considered as to why this dialogue is so prominent in the West and very difficult to formulate in other traditions. That is if we are to agree with Dubuisson and the other scholars that we have focused on in this thesis, and accept that “religion” is a western construct, then it would not be too presumptuous to assume that the science/religion debate is also a Western creation and therefore can only be understood (currently) from a very particular Western ideological perspective; after all this dialogue does not appear to exist anywhere else, well at least in the magnitude it does in the West⁵. I am by no means suggesting that this is in any way a good thing, as proper focus and dialogue of other non-Christian “religions” and their relationship to science would be a positive and also refreshing step in the right direction. I am merely considering that other reasons for the absence of proper dialogue is that this relationship is particular to the West. At least that seems to be what Iqbal is suggesting when he writes that “Islam and science remain in two separate, nono-verlapping zones of discourse for most Muslims, even Muslim scientists” (Ibid 143), and we must also consider the fact that Buddhism is another cultural tradition that is not at odds with science. In fact as is pointed out by the Dalai Lama there is very little separation between them, after all they are merely “different cultural traditions” that grew up quite separately that share “significant commonalities” (at least from his perspective) (<http://www.dalailama.com/messages/buddhism/science-at-the-crossroads> accessed by author August 10th 2013) and therefore there is very little reason for them to be at odds let alone for us to have to prove or disprove their commonality.

With that said, let us turn our attention back to the analysis at hand, although this is scholastic ‘food for thought’ this is indeed not the case in the West; as this field of study dominates the thoughts and minds of scholars everywhere, one merely needs to look at the influx of literature like *The Edge of Reason* (2008) to see how many different disciplines try their hand at unravelling the mysteries and questions this field seems to raise. However the sad fact is that regardless of the perceived diversity in this field, the Christian bias is dominant, and for now inescapable, as it too (as this thesis proves) is becoming as interesting an object for study (or at least their methodologies for study) as the debate itself. This is supported by Dixon who

⁵ That is not to say that there hasn’t been some attempts. More recently we can see at one such attempt made by Golshani (2012) and perhaps a somewhat more successful one presented by Muzaffar Iqbal (2007) but it ‘falls foul’ of many of the same traps that are prevalent in the Christian science v religion debate.

writes “...conjuring up vivid if historically debateable cultural stereotypes, is enough, I think, to justify its continued use as a category of thought...” (Dixon 17, 2008).

“We believe in one God the Father Almighty”: The God Delusion and other Christian Related Sundries

The reason for choosing this title is two-fold. The first reason is a fairly obvious one, namely that in many of the books that we find addressing this debate, especially those whose main focus seems to be to find a ‘common ground’ between science and religion, there is a recurring pattern; and this is the propensity to use God in the title, or a word, like faith, that has intrinsically Christian roots. For instance Cantwell Smith informs us that “for the medieval church the great word was always ‘faith’” (Cantwell Smith 1962, 31). This is further supported by Dubuisson who states that “...the terms ‘God’, ‘church’, ‘faith’...far from being isolated...weave a very tight but flexible fabric, but one that is relevant only within the context of Christian civilization” (Dubuisson 2003, 30). Some examples of these very Christian and western ideologies are found in the following titles: *The Mind of God*, *God Made the Integers*, *The Faith of a Physicist*, *The Language of God*, *Paths from Science Towards God* and so on and so forth. What do all of these titles have in common? Not just the ‘word of God’ but the one ‘monotheistic’ and obviously Judeo-Christian deity, the Western God. The problem that arises with titles such as this is that many of these books are written for the field of science and religion, and therefore many of these authors are wrongfully fixated on the belief that all religions can benefit from such dialogue, which is demonstrably not the case, Peacocke presents us with an example of this:

Theology, like science, is a search for intelligibility but, unlike science, it also seeks to meet the human need to discern the meaning which has generated religion as a social phenomenon in all human societies. (Ibid 2001, 178-179)

The second reason for choosing this title will become increasingly obvious when we come face to face with the more worrisome problem associated with this form of bias. That is the problem that arises with the authors’ understanding or perhaps misunderstanding of the very term ‘religion’ within this field of study. One such example of this misunderstanding is clearly represented in the fact that ‘theology’ is often used interchangeably with ‘religion’. We can find a number of examples of this misuse in the works of Barbour, Polkinghorne, Ward, and Peacocke to name a few. For instance in Barbour’s *When Science Meets Religion* although he is focused primarily on outlining what he refers to as “four types of relationships between

science and religion” (Barbour 2000, 7), which he does rather effectively and ground-breakingly (or at least this was the case when the book was written) in this book it is obvious by his phrasing of ‘religion’ and ‘science’ that what he is talking about is not ‘religion’ but theology. For instance we can see this discrepancy illustrated in the same paragraph, where he is speaking about the *Integration Model* in the science/religion debate. He writes that it is “a more systematic and extensive kind of partnership between science and religion” but in almost the same breath adds that “the long tradition of natural theology has sought in nature a proof...of the existence of God” (Ibid, 3). Demonstrating a rather uninformed or perhaps more accurately, misinformed view of the differences between ‘religion’ and theology; ‘religion’ (or more correctly Christianity) which in many ways is the phenomenon that ‘theology’ is used to study, rather than ‘theology’ being used as an interchangeable term that refers to both the study and the concept of ‘religion’. This is however not surprising when we are dealing with individuals who are scientists-*cum*-theologians rather than students of religious studies. After all it is Alex Bentley who asks the question “should scientists contest religious beliefs” (Bentley 2008, 7)?

Keeping this in mind, these individuals as well as any student studying this subject should be fully aware that one cannot use theology as the underlying method for study when we are meaning (as many of these authors seems to be implying) to be as open minded and as representative of all religions as possible. After all the message that these authors seem to be putting forward is that they are primarily concerned with finding a better way to understand “science and religion” not “science and Christianity”; and herein is where the problem lies. As any informed student of religion would know even though you may have Hindu or Islamic ‘theology’ this in many ways is somewhat of a misnomer, not to mention it a very good representation as to how we in the West read our own values into non-Western belief systems this is commented on by King who writes that “The modern study of religion is not unaffected by the Christian Heritage of Western culture and by the development of theology as an academic discipline of the West...”(King 1999, 42). After all the study of ‘theology’ is a Western construct that is primarily concerned with Judeo-Christian religion not the study of all religions (this should be the remit of Religious Studies) which seems to be a mistake often made by scholars. To support this we turn once again to King who writes that, “the distinction often made between the two runs along the following lines: theology is the traditional study of the Judeo-Christian religions, usually with the presumption of Christian allegiance. Religious studies, on the other hand, is a secular discipline that neither presumes nor precludes allegiance to any particular religious system or world-view” (King 1999, 41). This problem is emphasised by Fitzgerald who states further that:

...what I am arguing is that theology and what is at present called religious studies ought to be two logically separate levels of intellectual activity...I believe it is in these contexts that we can most easily see how a western concept, along with the cluster of other concepts that are attached to it, is continually being foisted on non-western societies even though its application is so obviously problematic...why, I want to ask do competent and even brilliant scholars continue to publish books and articles on the religions of non-western societies when, often by their own admission, it is exceedingly difficult if not impossible to fit the word with a legitimate referent . (Fitzgerald 2000, 6, 9, 20)

That is not to say that the study of religion is not affected by Christianity, after all how could it not be when Christianity and the West are so tied up in the formulation of the 'religion' phenomenon, or at least that is what the scholars we have focused on in this thesis would like us to believe (and I am inclined to agree with them as the evidence presented speaks for itself). It is a given that although we may try and *want* to be as impartial and as accepting of all religions as possible in our studies, we as Western scholars *cannot* entirely escape the West's influence on our perceptions, as it has affected how we judge and perceive the 'religions' of others. After all as is suggested by Dubuisson "It is through its categories [Christianity] that we conceive of others, and that these others, who are most often subject to our influence, conceive of themselves" (Dubuisson 2003, 10); but with that said, we must be aware of this distinction as well as careful with how we use the terms, especially when they are used improperly (as is demonstrated in these works) as a means to signify *all* 'religions' rather than Christianity to which it is intimately linked.

It is however not only Barbour who is responsible for this form of casual scholarship. Similarly in many of Polkinghorne's books, he presents us with this rather false idea that he is speaking openly about all religions and religion in general. We can see this in his statement, "the interactions between science and religious reflection..." (Polkinghorne 1996, 1). However with that said, he then goes on to show us that he is not writing about 'religion' in general, but about "theological reflections" (whatever that means). He writes that "I have subtitled this series 'Theological Reflections of a Bottom Up Thinker', for my intention, as I have explained, is to explore as far as I am able, how one who takes modern science seriously...approaches questions of the justification of religious belief" (Ibid, 3). This demonstrates another misinformed view that "theology" is religion or the study of all 'religions'; but this is not entirely surprising as this piece or 'reflection' as Polkinghorne would have it, comes across as more of a pontificating "slap on his own back" rather than a decent form of active and contributing scholarship to the field of science and religion, a quandary that seems to be ever so prevalent in this field.

This becomes even more evident when we look at the rather ambivalent tendencies in Peacocke's works that appear in many ways as glaringly obvious as those in Polkinghorne's. He writes that:

Today it is the scientific worldview that constitutes the challenge to receive understandings of nature, humanity and God—in a way that can be initially devastating yet is potentially creative. The credibility of all religions is at stake under the impact of: new understandings of the nature of personhood; and—even more corrosively—the loss of respect for intellectual integrity of religious thinking in general and of Christian theology in particular (Peacocke 2001, 15).

As one can see although Peacocke's point is in many ways apologetic, but also not entirely unfair, the criticism being levelled at him is the fact that it appears that he is brushing all 'religions' with the same stroke as Christianity (not to mention he is also using God in such a way that suggests a belief in him is a universal given). Though I have made it a point not to focus entirely on other belief systems in this thesis I believe that here is a perfect place to raise a point, that being that we must be aware of the fact that the 'challenges' that Peacocke speaks of above are far more endemic to Christianity than they are to any other 'religion'. This view is shared by Rato Khen Rinpoche the first Westerner appointed abbot of a Tibetan monastery who states that "Bringing science to Buddhist monks does not mean bending the belief system, they are parallel, there is no attempt to harmonize the two" (www.dalailama.com/news/post/912-where-science-and-religion-coexist accessed on the 5th of August 2013 at 16:58) meaning that the problem exists in Christianity because we are far more susceptible to the misinterpretations and also manufactured understanding that we have of the 'science' and 'religion' relationship in our very Western past, which has coloured the way that we see it at present. This is more clearly represented by Brooke who states that:

Not only has the problematic interface between them [science and religion] shifted over time, but there is also a high degree of artificiality in abstracting the science and the religion of earlier centuries to see how they related (Brooke 1991, 321)

That is to say that, if a separation between the two did not exist in our minds we would be less prone to find 'challenges' with their relationship because there would be no need for reconciliation. But due to the fact that it does "exist" and it is a major part of how (we in the West) view science and religion, western scholars are prone to wrongfully suggest that this is a prominent problem in 'all' religions. This however suggests a further need to be more selective as to the publishable scholarship in this field, as the picture so far painted seems to be a far cry from open-mindedness and objectivity. In many ways this literature seems to be

compounding evidence that a very imperialistic attitude is still very much alive today at least in this field of academia.

Though this rather questionable scholarship seems to be rife in this field there are at least some scholars like Ward (1998) who have the professional courtesy to inform their audience that what they are assessing is Christianity rather than some form of an all-encompassing précis on 'world religion'; which seems to come across in many of these works as some distorted and perverted extension of Christian belief (highlighting even further the very Christocentric ideology that this form of scholarship seems to favour-not entirely surprising). I am by no means suggesting that this is a conscious, nefarious or in any way deliberate misrepresentation of world religions; I am merely suggesting that some of these scholars seem to be oblivious to the sheer complexity of the issues that they are addressing. The perceived ignorance of the authors in this field that we have looked at thus far can appear quite shocking at times, especially as many of them are seen as experts and their works are highly praised. However what is being presented when similarities are being raised between science and *all* 'religions' is a scholarship built on false pretences and very weak foundations, making this scholarship appear far less credible than believed. That is to say that if we are to colour all religions under the same brush we are merely fooling ourselves into thinking that we are being open minded, when the sad reality of the situation is that we are projecting a very imperialistic and Western ideology on undeserving victims; because in many ways what we are doing is hand-waving rather complex and quite varied cultural beliefs and practices that belong to other peoples. This is supported by King who writes that "it has been a presupposition of a great deal of scholarship...that one can apply Christian categories...to religions, cultures and experiences beyond their original context" (King 1999, 7). The fact that these individuals are so quick to demarcate other religions as theologies also demonstrate a great deal of ignorance and arrogance on the part of the scholar. This form of view is worryingly tantamount in Polkinghorne's *The Faith of A Physicists* (1996) where he has to say this about "world religions":

It is just not the case that, under the skin, the world's religions are really all saying the same thing...it then serves as an expression of the third approach, that of inclusivism. D'Costa defines this as 'one that affirms the salvific presence of God in non-Christian religions while still maintaining that Christ is the definitive and authoritative revelation of God'...This is certainly the stance that I myself would wish to adopt. It has a venerable tradition in Christian thought, Justin Martyr in the second century, and Clement and Origen in the third, invented the category of 'good pagans', so that Plato and Aristotle, and even Plotinus living in the Christian era, were seen as having their place in God's economy (Polkinghorne 1996, 178-179)

Here we see a perfect example of imperialism under a guise of wholehearted sympathy and acceptance, which comes across as somewhat patronising, and there seems to be no indication

that the author sees his mistake. Worryingly there is evidence to the contrary as it appears that he genuinely believes that all 'religions' are the worship of God under different names. What I would like to suggest, as I have throughout this piece, is that if we are to truly understand the relationship between science and religion then we need to understand our own unique relationship (the west's) with these phenomenon. This means being aware and quite honest about our own ignorance and biases, even if that implies that we are not as 'worldly' as we may think we are. Furthermore, it is clear that we also have to refrain from calling these studies 'science' and 'religion' (at least the ones that we are presented with thus far) and start referring to them as the science and Christian debate, at least until we find a methodology that is more suitably objective and accepting of other beliefs and traditions.

Another related issue that we must caution against when dealing with this form of scholarship is the propensity towards 'slippage'. What is meant by this is that many of the methods followed in this field (and there are a few) in regards to the science and religion debate are not the more open minded, modern and systematic approaches that we have looked at quite closely in this study, but are rather more archaic in nature. That is that these works seem to compare science to a concept known as 'religion' that is not a complex cultural phenomenon but a *sui generis* and *a priori* object that has a multitude of definitions. One can go as far as to say that these studies are focused on more of an undergraduate 'textbook' idea of what a religion is; many of which (as we have seen) are influenced by an older and more draconian, not to mention highly Eurocentric and Christianised ideal as to what a religion ought to be, rather than what it is. These definitions often rely primarily on functionalist, experiential and substantive categorisations of religion (which we have covered in great detail in chapters 1 and 2) that are also hugely Christo-centric not only for the reasons mentioned above but because of the heavy theological background and bias of the field of religious studies. What this slippage in many ways conveys is not only the problems that we may have with defining religion and more often than not science, (especially in this field) but that it is incredibly difficult to, in many ways, define religion, illustrating that there are major problems with trying to put complex concepts like 'religion' into 'neat and tidy categories', raising the questions why bother in the first place? And how legitimate is this field of study as an academic discipline?

Questioning the Almighty: Getting to Grips with Current Science/Religion Approaches and Asking Some Hard Questions.

As has been pointed out in the previous section, there has been a great deal of research in this area as well as arguments and counterarguments for the science/religion debate. However, if we are to understand this relationship more clearly and come up with ways to better

understand it, we must first familiarise ourselves with what is ‘out there’, so to speak especially in regards to science/religion approaches; in other words we must familiarise ourselves with the methods used by scholars within this debate. Like any other academic field of study, science and religion has its methodologies and models for relating these two things. The most popular of these, or perhaps more accurately the ones that we should be most familiar with, are those presented by Ian Barbour known as the Conflict, Independence, Dialogue, and Integration “views” or models. In the words of Stenmark, Barbour’s “four-fold typology” was “the best-known attempt to offer such an account...the conflict view, the integration view, the dialogue view and the independence view” (Stenmark 2010, 278). This is supported by Russell who states that “It remains the most widely used typology in the field” (Russell 2000 accessed on September 4th 2013). That is how <http://www.counterbalance.org/rjr/atypo-body.htm> never not to say that his typologies are the only ones out there.

For instance a few years before Barbour published his *When Science Meets Religion* where he deconstructs, polishes, and clearly defines these proposed views to his readers (that is of course not to say that these views have not been expressed by him previously) Barbour (1988, 1990) many people took up the typology mantel so to speak, partly in response to Barbour’s proposed models. This is supported by Russell who writes that “in the 1990’s a variety of typologies appear, many responding directly to Barbour’s work” (Russell 2000, <http://www.counterbalance.org/rjr/atypo-body.html>). Included in this were Willem Drees (1996), John Haught (1995) and Ted Peters (1997). Barbour responds to one study in particular, Haught’s, where he states that:

In 1995 John Haught offered a slightly different typology—one that may be easier to remember because all the terms start with the same letter. His first two categories, Conflict and Contrast, are identical with those in my scheme. His third category, Contact, combines most of the themes in what I have called Dialogue and Integration. He introduces a fourth heading, Confirmation...which I treat as a form of Dialogue (Barbour 2000, 4).

Though these typological studies rose in popularity in the 1990’s, it must be noted that they emerged a decade earlier in the 1980’s; Peacocke (1981) and Murphy (1985) where among the first scholars to propose such an approach. However according to Russell although “the 1980’s saw other typologies...they were less widely effective” (Russell 2002, <http://www.counterbalance.org/rjr/atypo-body.html>). It must be further mentioned however that there is a large amount of work that has been done on categorisations and relating science and theology and the individuals mentioned above are only a few who have contributed to such scholarship. Also included on the list are Viggo Mortensen (1987, 1988); and Robert J. Russell (1985) to name a few.

Though there are many of these works “out there” so to speak the appeal in choosing both Barbour and Stenmark is in the simplicity (I use this term loosely) of their categorisation in relation to the others. That is by no means to say that simplicity is better; as the fact of the matter is that this can cause a number of difficulties, such as but not limited to, an over simplification of an overly complex concept. However by choosing to take the more thorough approach like Peter’s (eight fold typology) and Drees’ (3 x3 classification) one risks either repeating oneself by presenting categories that are very similar to one another, for example Peters’ *Scientism and Scientific Imperialism* categories where he himself states that “scientific imperialism is scientism in slightly different form” (Peters 1997, 650); or overly complicating an already complicated concept. That is to say that through adding a number of different classifications one is setting a precedent that will lead to the addition of more categories in order to cater to any new challenges that may arise in the field, such as the creation of more definitions. Even Drees himself comments on this possibility (although somewhat unconsciously) as his main intention is to show the inferiority of other classifications in relation to his own; however in pointing out the strengths of his own categorisations, that is the addition of many more categories, he is in many ways demonstrating its overall weaknesses and difficulties. He writes that:

Other classifications...give prominence to the way cognitive claims in religion (theology) and in science are related... in the scheme proposed here. And especially with respect to this area I intend to make it clear that debates do not stand in isolation, but require consideration of other views of religion...and other views of challenges (other horizontal rows) (Drees 1996, 45).

The slant taken here that “more is not always better” is supported by Barbour who states that:

There is some advantage in using a larger number of classifications to allow for greater discrimination. The disadvantage of introducing more categories is that the scheme becomes rather complicated, especially when it is used in examining a variety of scientific fields. Defining each category more narrowly yields greater precision, but one is more likely to find views that do not fit under any of them. Broader categories can include diverse cases more readily, but at the price of precision (Barbour 2000, 4).

I am in agreement with Barbour here as his ideas are convincing and thus highly germane to the study at hand; hence why his work was chosen for this assessment. However it must be noted that this is not the only reason for choosing his typology over the others. His classifications are not only easier to comprehend in relation to say Drees (1996) but as has already been mentioned are quite popular among scholars in this field, and this is demonstrated by both Ruse (2010) and Stenmark (2010) who use this approach in their own work.

However that is not to say that everyone agrees with Barbour's models. Drees' for instance has this to say about it, "[it is] an attractive rhetorical move, but not adequate since it neglects the fact that challenges [in the field and relating to science and religions] are different" (Drees 1996, 45). To emphasise the negative views expressed about Barbour's typologies we turn to Ruse who states that "not everyone is completely happy with this typology" (Ruse 2010, 230). I for one am not a fan of typologies in general, primarily due to the fact that they force complex issues into set and rather reductionist (or in some cases too generalised) categories; nor does it seem like many of the scholars of 'religion' that we have looked at in this thesis harbour a like for them either. With that said, we should become less keen of these typologies when it has been pointed out to us by a number of individuals like King, Smith, and Cantwell Smith that categorisation becomes less and less relevant when dealing with complex cultural phenomena which science and religion are (and this will be explained in greater detail later).

This becomes especially relevant when we are made aware of the fact (as has already been presented) that both science and religion are modern western constructions. That is to say that many of these views argue, as was shown in the last section and is relatively prominent throughout Barbour's *Religion and Science* (1998), that science and religion were once in harmony and for some reason (a reason(s) that is/are neither defined or investigated) they have gone their separate ways. It goes without saying that many of these ideas are an anachronistic and romantic reading into their past relationship, hence the emphasis on the fact that this understanding is a rather modern one. For instance Harrison states that "science is a modern category, not an ancient one" (Harrison 2006, 83). This is taken one step further by King who attributes the modern construction of religion and science to the post-Enlightenment where he specifies the interesting dichotomy that was created between them; those being the idea that science rules its own separate realm (the public) and religion the (private) and inner domain. In response to this King writes that:

One aspect of the modern construction of the categories of 'religion'...that requires our immediate consideration is the location of the two concepts in terms of the post-Enlightenment dichotomy between the public and private realms. Modern science is generally considered to be a part of the public sphere of human activity since it is seen as universally relevant and applicable to all. It is public in the sense that it is seen as accessible, repeatable, quantifiable, and empirical in orientation, and progressive by its very nature (King 1999, 12).

King goes on to clearly illustrate the contrasting domain that is ruled by religion writing that:

In contrast to this, religion and mysticism have been firmly placed within the realm of the private since the Enlightenment. The view that religion is largely a matter of personal belief rather than of communal involvement is a prominent feature of modern Western Religious

consciousness...the modern privatization of religion is in fact enshrined in the Constitution of...the United States of American, with the explicit separation of Church and State and the freedom of the individuals to practise religion of his or her choice. (Ibid)

If we were ever to doubt that King and Harrison were correct in their assessments we need look no further than these science/religion models for the answer; as will be presented here it will become quite apparent that this dichotomy does actually exist as it is not only apparent in one model but in most of them. Whenever we are presented with an approach that sees science and religion in conflict, integrated, reconciled or independent, or for that matter any that illustrates a relationship between two separate phenomena, these are echoes of this post-enlightenment ideology; this idea that science and religion are separate entities that govern their own sphere of society. After all, if they were represented as social activities and not these strange *sui generis* concepts that have their own set categories the surely there would be no need to see them as separate or have to work so very hard, even at the risk of poor scholarship, to find ways to integrate them in the first place.

One thing is certain if this were the case we would not be faced with this strange dilemma that we have created for ourselves, the conflict of how to integrate two separate phenomena. Perhaps one of the major problems that we face when presented with these models is the fact that if they so clearly illustrate a modern western understanding and therefore are already on shaky ground even before we assess their usefulness and relevance (that is to say that we need to keep in mind even before any of the other evidence is presented to us that these models are founded on rather false and western pretences), does this not beg the question as to how useful they are in the first place? Though they seem to dominate this field of study, are these models truly the best for understanding and/or bettering this relationship? The fact that we have barely started our assessment and these models are already finding it difficult to satisfy our evaluation would suggest the contrary. Regardless of this however, if we are to answer any of these questions accurately we must first come to terms with a number of these approaches.

To Be, or Not to Be? That Is the Question:

As a reaction to the multitude of differing approaches and views Stenmark states that “The ideas propounded vary widely and the question arises of whether it is possible to classify these differing viewpoints in any meaningful way” (Stenmark 2010, 278). Furthermore he has graciously decided to make our job somewhat easier by taking these ‘typologies’ a step further. He does his best to present us with better ways of relating science and religion in an attempt to be as ‘illuminating’ and ‘unbiased’ as possible whilst also suggesting a way that is neither

“too simplistic nor too complex” (Ibid). Though I believe this to be a rather exigent and somewhat lofty goal he does manage to achieve this by reducing these typologies to a “reconciliation framework”. He suggests that:

If we survey the extensive science-religion literature we discover that most of the ideas expressed presuppose an acceptance of the reconciliation model. That is to say, most of the scholars engaged in the dialogue today maintain or assume that science and religion can be combined or reconciled in some way or other; yet they differ on how exactly this would be done, and develop a variety of different standpoints. (Stenmark 2010, 280)

Though his attempt can be admired it must be noted that he has equally complicated the issue. Though I will agree with him that perhaps Barbour’s models can be somewhat reduced as the Dialogue and Integration models can more than easily fit a reconciliation framework; that is to say that they both seem to suggest ways in which science and religion can benefit one another by sharing methods and contributing towards specific goals, primarily filling the gaps where the other cannot. As is suggested by Barbour “One form of dialogue is the comparison of the methods of the two fields which may show similarities even when the differences are acknowledged...Alternatively, dialogue may arise when science raises at its boundaries limit-questions that it cannot itself answer (for example why is the universe orderly and intelligible)” (Barbour 2000, 2-3). The integration model is exactly what it “says on the tin” so to speak, it is the means to integrate science and religion so that they can work together in harmony. Barbour explains it as “A more systematic and extensive kind of partnership between science and religion occurs among those who seek a closer integration of the two disciplines” (Ibid, 3). As one can see from the examples above both models have a similar or ‘overlapping’ goal in common and that is to find the ways and means to work to the benefit of the other, and it is in this reconciliation, so to speak, where we can begin to see the relevance of Stenmark’s models; he has this to say about it “The reconciliation model then...presupposes the existence of some kind of overlap or contact between the two practices. This is why I sometimes referred to this model as the contact view” (Stenmark 2004, 9; Stenmark 2010, 279).

It must be noted that this idea of “contact views” so to speak or the use of the term was presented by Haught in 1996. It represented a model that comprised of concepts similar to those of Barbour’s Dialogue and Independence views and combined similar themes. It appears that this term was merely adopted by Stenmark who does not seem to mention this connection.

Though Stenmark seems to demonstrate the reconciliation models quite effectively he only briefly mentions other models, most notably the conflict/warfare model. In many ways this can be regarded as an oversight on Stenmark’s part as it is a very popular model. What is most perplexing about this choice is that Stenmark himself writes that “Nowadays there is a common view that although science and religion were once compatible...this is no longer true” (Stenmark 2010, 278), stating its popularity. It is such a popular viewpoint that this is the position that is most often taken and enjoyed by our vociferous scientist-*cum*-atheists. This is

supported by Ruse who states that “The late nineteenth-century critics of religion such as Thomas Henry Huxley were a great supporter of the warfare model and this sentiment is shared by the new atheists” (Ruse 2010, 230). Therefore it is quite interesting to note that he only mentions it in passing so to speak, and that is to do nothing more than to reduce it to an irreconcilability framework to offer a counterweight to his reconciliation model.

In order to understand where he is coming from in this instance we return to Stenmark who writes that “Barbour talks not about the irreconcilability model but about the conflict model. Are these different names for the same core model” (Stenmark 2010, 280)? Stenmark seems to think so. In many ways he believes that irreconcilability is a much better term of phrase to describe this model than conflict and his reason for this is that “If there is an area of contact or overlap between science and religion there is always the possibility that a conflict might arise, but equally there could be harmony or even mutual support there as well” (Ibid). Does this not go without saying? Of course it does, so why go to such extents to justify his course of action?

That is not to say that his irreconcilability assessment is inaccurate or in fact incorrect as the conflict model does, from a particular point of view, fit an irreconcilability framework; by the sheer fact that if it does not look to undermine the relationship between science and religion in a ‘Dawkinsque fire-brandish way’; it may seek to take a less aggressive stance (or perhaps more accurately curt) on their relationship and dismisses one or the other as never getting along because ‘that is the way it has always been’. With that said however, one cannot help but to suspect, by the way it is only briefly mentioned by Stenmark as a method to use in order “to avoid any ambiguity on this issue, the suggestion is that we talk about the irreconcilability model rather than the conflict model” (Stenmark 2010, 281), that its grading to an irreconcilability framework was manufactured specifically to make his reconcilability model look more tidy. This sort of manufactured and lackadaisical scholarship can also be seen in his use of the Independence model in his suggestion that it fits (albeit weakly and forcibly) with his reconciliation framework, because the Independence model calls to both science and religion as rulers of their own domains so-to-speak. As a result of this they do not in any way interfere with the other and therefore no tension exists between them. Though one can see how he arrived at this conclusion one cannot help but to question the fact that in taking such an approach he is in effect ignoring the reality that a conflict (although artificially contrived) was believed to exist and as a consequence *did exist* between science and religion. By denying that this is the case or more accurately ‘brushing it off’ is he not, in more ways than one, taking their complex history for granted?

With all of this said he does propose a reconcilability framework which in many ways does make things slightly easier (from a certain point of view) in one way as it combines a number

of different views under a common categorisation. Stenmark's methodology is also quite clear and his need and want to make these categories simpler is also admirable. With that said, I am not entirely convinced that he manages to do this as successfully as he may think. The reason for this is that although he reduces Barbour's four (4) models to an effective two (2) He seems to add six (6) new subcategories to the reconciliation model along with an "irreconcilability" typology increasing an effective typology of four (4) to seven (7). These subcategories are "Reformative and Supportive" and "conservative, traditional, liberal and constructivist" (Stenmark 2010, 280-287). So even though the reduction is there somewhat he has added at least six (6) new categories.

The question I would like to pose is how does this make the model less complex? It doesn't; tidier, different and more organised perhaps, simpler no. One can only assume that his logic is that because the four (4) models are reduced to an effective two (2) it has made these models more understandable and more easily assimilated. Then why add all the extraneous subcategories? It only seems to be overly complicating an already complicated, not to mention troubling, categorisation. Despite all of this I do agree quite extensively with part of Stenmark's assessment especially when he suggests that his reconciliation model is a combination of Barbour's integration and dialogue views (Ibid, 281); the truth of the matter is that whether we call them a model of "reconciliation", "hypothetical consonance" (Peters 1997); "contact" (Stenmark 2010; Haight 1995) or "mutual compatibility" the Dialogue and Integration model are saying relatively the same thing, only from a slightly different method of approach. To briefly elaborate his Integration model proposes a close working partnership between science and religion, Barbour states that "Integration [is when] A more systematic and extensive kind of partnership between science and religion occurs among those who seek a closer integration of the two disciplines" (Barbour 2000, 3)

That said it suits our purpose in many ways especially as we are not interested in 'rehashing' old models that have been 'done to death' so to speak, but are more interested in a current analysis of the science/religion dialogue and finding better ways to relate these two things and our first course of action is by picking holes in these approaches. So although it may seem that we are primarily focusing on Stenmark's framework (even though I had mentioned Barbour at the start of the piece) he will be added to the mix because despite all of Stenmark's organisation and hard work, as we have seen he does not fairly represent or encompass the Conflict and Independence models (two popular models). Though his reasons for this are in many ways understandable as he is more focused on proposing his reconciliation model, their popularity cannot go unnoticed. That is why for the purpose of this thesis I have selected not only elements from Stenmark but also from Barbour, elements that I felt were more suitable for our purposes; because as is suggested by Ruse, Barbour's work "...can serve as a framework for

thinking about positions that have been taken on the boundaries and interactions between science and religion” (Ruse 2010, 239).

To Set Up What You Like Against What You Dislike, This Is the Disease of the Mind: The Conflict Model

To give you a brief précis of these models we turn to Barbour himself and the first one on our list, the Conflict model. This model is what one might think a “conflict” model would include, a clash between the two opposing forces of science and religion. Such an approach would either epitomize religion as the antithesis of science or vice versa, but it more often than not shares this idea that some conflict has always existed and will forever exist between science and religion (Stenmark 278). Stenmark tells us that:

Nowadays there is a common view that although science and religion were once compatible, and perhaps even mutually supportive, this is no longer true. According to this view, science and religion are in serious tension, even in direct conflict with each other. We have to make up our minds and pick one of them: it is no longer possible to embrace both (Ibid).

Though we have already looked at a number of individuals that we know who hold a negative view towards religion like our friend Dawkins two scholars that we may be unfamiliar with (or at least their views on religion and science) are Nobel laureate Francis Crick (1994) (the co-discoverer of the structure of the DNA molecule) and philosopher of science John Worrall (2004). This is further supported by Stenmark (2010, 278) who suggests that even though both of them are advocates of this model and believe that science and religion cannot in anyway be reconcilable due to their major differences but also to the fact that the evidence for god and other matters of religion are “so flimsy that only an act of blind faith can make them acceptable” (Crick 1994, 257), it is Worrall who is even more direct about his opinions on the matter. Worrall states that, ‘Science and religion are in irreconcilable conflict...’(Worrall 2004, 60). Though these may seem like relatively harsh views, it is important that we understand that nothing takes place in isolation. That is to say that these views are not merely fabrications that ‘fell from the sky’ but that there are real reasons behind why they exist and why individuals like Crick and Worrall hold so strongly to them.

Therefore it is important that we ponder and understand some of the reasons as to why this model exists, as this can give us an insight into the inner workings of this argument and move us away from the ever popular ‘blaming game’ so to speak. This view is in many ways a ‘double edged sword’, and what is meant by this is that though there is no mistake that it is one of the main motivators behind many apologetic approaches presented in this field. This is supported by Dixon who writes that “I have already mentioned that much academic work in this area has

been concerned with the plausibility (or lack of it) of the idea of an inevitable conflict between science and religion...driven by apologetic motives” (Dixon 2008, 15). One need only to look at the work of Polkinghorne, Peacocke and Ward to see this apologetic approach illustrated. It also seems to have some influence on the incessant need of scholars (mostly scientists-*cum*-theologians) in this field to feel that they must find ways to ‘harmonize’ science and religion in order to make science look less of the culprit in this debate. Perhaps the reason for this is that the individuals who are most visceral in this debate like Dawkins, Dennett and Crick to name only a few are unfortunately scientists, making science look like religion’s mortal and eternal foe.

Equally however these scientists are not entirely to blame (although many individuals take pleasure in blaming them) this literature and these fundamentalist scientific views spring up as a response to the reactions of fundamentalist Christian groups mainly those that are intent on aggressively arguing against theories like evolution. To name one such example that could have easily led to such hostilities against religion, is an incident that occurred in Dover PA in 2004, the case of *Kitmiller v Dover Area School District*. When parents so infuriated at the Dover School District insistence that their children be taught about intelligent design as an alternative to evolution, took the Dover school board to court in response to this. (<http://news.bbc.co.uk/1/hi/world/americas/4545822.stm> accessed by author at 12:04 August 22nd 2013). This is supported by Ronald L. Numbers who states that “Intelligent Design emerged as front-page news in 2005, after a group of parents in Dover, Pennsylvania, filed suit against the school board for promoting ID in ninth-grade biology class” (Numbers 2010, 139). Other reactions towards creationism are enforced by Brooke who points out that one of the difficulties that Dawkins, for example ran into in his encounter with American creationists is what he [Brooke] describes as “150 years of Darwinian evolution have not yet eroded ultra-conservative religious positions. Moreover, recent decades have witnessed a resurgence of religious fundamentalism...” (Brooke 2010, 105).

It is interesting to note that even Numbers informs us that these reactions are in many ways fuelling the conflict model, writing that “...many people see the creation-evolution debates as the central issues in the continuing controversy” (Numbers 2010, 127). This is further supported by Harrison who suggests that the rawness of this conflict is still felt to this day because “The activities of these anti-evolutionary movements, and the reactions which they have provoked from the scientific community, have led to a perpetuation of the common view that science and religion have been, and will continue to be, locked in perennial conflict” (Harrison 2010, 2). This should come as no surprise to us as it is understandable that such views would ignite such a strong reaction from both camps. That said we must keep in mind that those individuals who are heard most often are those who are most vocal and therefore it

is unfair to suggest that these same fanatical ideologies are held by everyone that holds this position (The Conflict view).

As is suggested by Barbour, this model is perhaps a result of two major historical events within the history of science and religion; those are the relationship between Galileo and the church (aka *The Galileo Affair*) and *Darwin's theory of evolution*, one of which (*The Galileo Affair*) we covered briefly in this chapter. This is further supported by Brooke who states that “The motion of the earth in Galileo’s day and evolutionary accounts of human origin in Darwin’s have been iconic examples, which in popular simplified accounts have encouraged the view that science and religion are inherently incompatible” (Brooke 2010, 107). Though we understand that the science/religion history is far more complex than two events, and we need to be fully aware that this is the case, there is an overwhelming amount of evidence as seen above and elsewhere, like the fact that many scientists-*cum*-theologians are spending a great deal of time trying their best to reconcile this relationship, that point to these two events as having a major impact on this relationship; perhaps not so much the events themselves, but for the reactions that they produced. Reactions that are sadly still a part of the popular view of the ‘science’ and ‘religion’ relationship today, and are likely to remain unless this view is in some ways altered; and this would take a great deal of effort on both the part of the scholar and the educator to do so. One such example of a popular view of this relationship is illustrated in Robert E. Lee’s play *Inherit the Wind* that was performed in 1955, and made into a film in 1960. This was a dramatization of the Scopes ‘monkey trial’ of 1925, where a teacher John Scopes was put on trial for violating the Bulter Act which prohibited public school teachers as well University Professors from teaching evolution in schools in Tennessee (Dixon 2008, 13; <http://law2.umkc.edu/faculty/projects/ftrials/scopes/tennstat.htm> accessed by author September 10th 2013).

Interestingly enough, Darwin’s theory of evolution is at the heart of many of the core debates and this “conflict” ideology in the 20th and 21st and has been the main cause of questions arising that relate to the idea of intelligent design and creationism. This is however not only a current phenomenon, Roberts informs us that problems with this theory arose as early as 1859 with the publication of Darwin’s *Origin of Species*, he writes that “Still, it is unquestionably true that from the outset of its publication in November 1859, Darwin’s work elicited much attention and generated more than a little hostility” (Roberts 2010, 80). This is supported by Wertheim who states that “only during the 1860s did hostility open. The catalyst for this unprecedented rift was the publication in 1859 of Charles Darwin’s *The Origin of Species*. The idea that man was not created in the image of God but had evolved from ‘lower’ life-forms struck deeper at the heart of Christian belief....and it caused a furor within Christian circles” (Wertheim 1997, 162). This also stresses an important point and that is that when looking at

the conflict model or in fact any of these models we must be aware that most of the reactions (or at least those that scholars seem to be interested in) are inherently Christian in nature and are primarily levelled at evolutionism.

Though one could perhaps contribute this problem primarily to the idea of what fundamentalist Christian groups believe about God and creation, and what Darwin's theory is dismissing in relation to this (as is suggested by Wertheim), there are a number of other challenges that Darwin's theory brought to the playing field. Barbour points out three such challenges that Darwin's theory proposed:

A Challenge to Biblical Realism. A long period of evolutionary changes conflicts with the seven days of creation in Genesis...(Barbour 2000, 8)

A Challenge to Human Dignity. In classical Christian thought human beings were set apart from all other creatures...in evolutionary theory humanity was treated as part of nature. No sharp line separated human and animal life, either in historical development or in present characteristics... (Barbour 2000, 9)

A Challenge to Design. Darwin showed that adaption could be accounted for by an impersonal process of variation and natural selection...(Ibid, 9-10)

This is supported by Roberts who writes that "...in rejecting the interpretation of the history of life as a succession of independent creations of species in favour of theory predicated on 'random' variations and natural selection, Darwin's hypothesis challenged the idea that natural history was the realization of a plan initiated and sustained by providential deity and undermined the veracity of the scriptural depiction of the scheme of redemption" (Roberts 80, 2010). Though both Roberts and Barbour present us with challenges that were raised in the past, they are still fuelling 'creationist fires' and a very real anti-evolutionary mentality, which has, unsurprisingly, resulted in the rise of anti-evolutionary groups in the United States. Harrison states that:

...another reason for heightened interest in science and religion has been the persistence, and indeed growth, of influential anti-evolutionary movements. Young-earth creationists, which rejects both macroevolution and geological evidence for the antiquity of the earth..Also growing in influence is the intelligent design movement which, although it differs from youngearth creationism in important respects, also asserts that biological accounts of the adaption of living things are incomplete unless they allow room for theistic explanation... (Harrison 2010,2)

That is not to say that the US is the only place where these problems have taken root. Numbers informs us that in 2000 creationism started to "go global" despite popular beliefs to the contrary. He writes that "creationism was successfully overcoming its 'Made in America' label and flourishing not only among conservative Protestants but also among pockets of Catholics, Eastern Orthodox believers, Muslims and Jews" (Numbers 2010, 140). However the effect of the conflict between science and religion did not end here. As with any reactionary movement

there was a counteraction, members of the scientific community lashed out at what they thought were fundamentalist views. One such example as presented by Brooke below, is quite a recent provocation; although Dawkins is at the centre of it this is a good example of how the reaction of anti-evolutionary movements are still provoking reactions. Brooke writes that:

In August 2008, anticipating the 200th anniversary of the birth of Charles Darwin, and the 150th anniversary of the publication of his *Origin of Species* (1859), Richard Dawkins presented on British television three programmes designed to celebrate Darwin's genius...the invocation of a contrasting religious position had a didactic function—to reinforce the viewer's understanding of Darwin's science and its naturalistic presupposition. A second goal, having many antecedents in the history of science, was to use the theory's supposed implications for religion as a technique for exciting the public interest in, and appreciation of, Darwin's achievements...Dawkins' anti-religious juxtaposition of science and religion does, however, serve a third and explicitly avowed goal—that of persuading those who live in religious darkness that there is a great light (Brooke 2010, 103; Dawkins *The Genius of Charles Darwin*, channel 4 TV series August 2008).

However there is another interesting element to bring to the foreground; and that is what the TV series referenced above, demonstrates about this view; mainly how mainstream these ideas have become and how real the conflict between science and religion is. To understand this phenomenon we must once again return to (our old friends) Draper and White as Barbour believes that they are responsible for this popular reaction. Though it must be noted that reactionary views towards religion sprung up earlier than Draper and White and Darwin's *On the Origin of Species*, and in one historical incident it even gave rise to the separation between church and state in America with the adoption of Thomas Paine's democratic ideals. Dixon informs us that:

Later in his life, having had a hand in both the American and French revolutions, he turned his sights from monarchy to Christianity. The institutions of Christianity were as offensive to his enlightened and Newtonian sensibilities as were those of monarchical government. In his *Age of Reason* (1794), Paine complained of 'the continual persecution carried on by the Church, for several hundred years, against the science and against the professors of science (Dixon 2008, 11)

With that said however Draper and White are the popular culprits that scholars continually refer to as those that fabricated this lie. This is of course also supported by Lindberg and others as has been demonstrated in the previous chapter; therefore without rehashing old ground, despite the fact that he, Barbour, believes that this model can pay its success to the Draper-White thesis (Ibid 10); what he fails to mention is that this thesis was also a reaction to Darwin's work. That is to say that it was *Darwin's theory of evolution* that elicited such a reactionary response from both White and Draper. For a better understanding and insight into this we turn to Jon H. Roberts and Brooke who write that:

In 1896 Andrew Dickson White (1832-1918)...suggested that Charles Darwin's *Origin of Species* had entered the theological arena 'like a plough into an ant hill'. As was so often the case when he assessed the impact of science on theology, White exaggerated when he alleged that Darwin's theory 'rudely awakened' believers from a lethargic state of 'comfort and repose'. Still, it is

unquestionably true that from the outset of its publication in November 1859, Darwin's work elicited much attention and generated more than a little hostility. (Roberts 2010, 80)

For Draper, the Darwinian debates had focused attention on a crucial issue—whether the government of the world is by incessant divine intervention or by the operation of unchangeable laws. (Brooke 1991, 34)

Though we know from the evidence previously brought to bear, that this model seems to hold great appeal with the general public, and this is commented on by Barbour who states that “Today the popular image of ‘the warfare of science and religion’ is perpetuated by the media, for whom a controversy is more dramatic than the more subtle and discriminating positions between the extremes of scientific materialism and biblical literalism” (Ibid 10); and although I would agree with Barbour that the media does “enjoy a good story” we cannot ignore that fact that it is catering to an audience that wants to hear about this eternal conflict between two of its favourite cultural activities, science and religion. This resulted in the popular understanding that science (the progressive and also intellectual underdog so to speak) broke away from not only a tyrannical and oppressive regime, but one that was based on a more inferior ideology (the church). We can see this type of mentality sprinkled throughout much of the “new atheist” literature that is prominent in this field (as we have previously looked at); bringing us neatly to our next approach the Independence Model.

I Am Single Because I Was Born That Way: the Independence Model

Barbour informs us that the Independence model is “An alternative view [that] holds that science and religion are strangers who can coexist as long as they keep a safe distance from each other. According to this view, there should be no conflict because science and religion refer to differing domains of life or aspects of reality” (Barbour 2000, 2). This is enforced by Ruse who informs us that this is “a very popular position” one that is also known as *neoorthodoxy* in theological circles owing much of its success to the Swiss Reformed Theologian Karl Barth (Ruse 2010, 231; Barbour 2000, 17). This is supported by Miller and Grenz who write that “...neo-orthodoxy [is] a teaching informed by a critical approach to the biblical literature, availing itself of the relevant insights of modern learning (history, science, psychology, etc) and seeking to address the contemporary situation...” (Miller and Grenz 1998, 14). A further explanation of neo-orthodoxy is presented by both Ruse and Barbour. Ruse writes that it “would explain the difference between knowing how or what and knowing why” (Ruse 2010, 231). Though Ruse presents us with an explanation in the form of an anecdote of a family visiting the seaside, I think a better explanation of *neo-orthodoxy* would be the one presented by Barbour who states that its many precept is that “God can be known only as revealed in Christ and acknowledged in faith...Religious faith depends entirely on divine

initiative, not on human discovery of the kind occurring in science. The primary sphere of God's action is history, not nature...science is based on human observation and reason, while theology is based on divine revelation" (Barbour 18, 2000). In other words, science seeks to answer the how and whys of nature, in contrast this school of thought (so to speak) is not concerned with nature because it knows the "whys" which are revealed through God's actions to his followers.

So what exactly is the Independence model and where does it fit in to our argument? Like the Conflict model this too is a rather self-explanatory model, in the sense that it advocates what one would expect it to, this idea that science and religion are *independent* and therefore are not in conflict. What this model suggests in many ways is that science and religion are in fact totally different things that govern their own unique domains so to speak as is explained in the theological definition above; that said in regards to a less theological and more scientific definition of this relationship is presented by Stephen J. Gould who came up with an interesting definition to describe this phenomenon suggesting that both science and religion are covered by a different 'net' what he refers to as a "magisterium". He writes that "...the net, or magisterium of science covers the empirical realm: what is the universe made of (fact) and why does it work this way (theory). The magisterium of religion extends over questions of ultimate meaning and moral value. These two magisterium do not overlay, nor do they encompass all inquiry..." (Gould 1999, 6). Some like Stenmark would suggest and perhaps rightly so, that this model is in many ways one that offers compatibility between science and religion, "According to the Independence model: Science and religion are compatible because today they are two completely separate but legitimate practices with no overlap at all" (Stenmark 2010, 279); whereas the conflict model is entirely one of incompatibility, I would suggest that this is not quite correct. My reasoning for this is that by suggesting that this model is one of compatibility would be as tantamount as saying that two individuals who cannot agree, and who have nothing in common and therefore choose to amicably go their separate ways are in fact compatible, which frankly is absurd. As amusing as it may sound, perhaps it would be slightly more accurate to refer to this model as a model of 'tacit acceptance' or 'tolerance' rather than compatibility.

Propensities and Principles Must Be Reconciled by Some Means: The Reconciliation model

This brings us neatly to the next model in our assessment, the "Reconciliation" model as proposed by Stenmark. As has already been stated as a means to better organise these models Stenmark took it upon himself to create what he believed was an easier and tidier means to

categorise these views, this can be found in his reconciliation framework. As has previously been mentioned within these new categories are sub-categories and quasi- categories. To begin with, let us take a look at what Stenmark refers to as his ‘Reformative’ and ‘Supportive’ versions of the reconciliation model. Like many of the other views we have looked at thus far the reformative view is exactly what we would expect it to be, the idea that science and/or religion have to change (or reform) in order for the two to ‘see eye to eye’. Whether that means that religion adopts more aspects of science, as is the point that the Dalai Lama makes in response to science and religion, which talks about Buddhism changing with new scientific perspectives and innovations (Dalai Lama 2005, 6, 146) or that science gives religion a bit more leeway, such as keeping an open mind when it comes to creationism and cosmology especially when science is at a point where it cannot explain everything, this is the main premise of this model. Many of the scholars that we have looked at thus far fall somewhere in the reformative camp, including Peacocke who believes that “radical revisions” must take place in both science and religion if Christian theology is to take modern science into account (Peacocke 2007, 6). Ward (2007) and Polkinghorne (1998) on the other hand believe that Christianity is in many ways fine as it is but that science needs to change its views to fit it (that is that it needs to be more accepting of religion). According to Stenmark, despite their relatively different views he believes that they all fit this model in one way or another primarily because they (regardless as to their differing views) are of the opinion that some type of reform needs to take place in order for science and religion to happily and harmoniously coexist. This is commented on by Stenmark who writes that:

Arthur Peacocke claims that those attempting to develop a Christian theology that takes into account contemporary science...[must] realize that ‘radical revisions...are necessary if coherence are to be achieved...Polkinghorne...would argue that tradition formulations of the Christian faith can be left relatively intact...Keith Ward would probably be of a similar opinion [to Polkinghorne] (Stenmark 2010 282).

If Reformative models were not enough however Stenmark brings another quasi structure to the forefront, not only are there now two different reconciliation models but within the ‘reformative view’ there are also two more sub-categories. Those that he refers to as “religion-priority reformative view” which takes the view that religion is in many ways fine but it is science that needs to change and the “science-priority reformative view” which sees that the major conflict between science and religion is caused by religion not wanting to “move with the times” so to speak, and if it were to change then all would be well (Stenmark 2010, 280-286). Though I can see why Stenmark may have thought it helpful to separate these views, as in many ways one takes a more scientific standpoint and the other a more religious one, I cannot see the relevance or in fact helpfulness to his strategy, as they are (regardless of points of view) suggesting effectively the same things. To add to the confusion Stenmark decides to

add another (and in many ways unnecessary) level of complexity to an already overly complicated lattice; what he refers to as “weak” and “strong” versions of the reconciliation model (the more layers we encounter the more I can see the confusion and irrelevance) saying that the ‘weak view’ is basically the *dialogue* model where the ‘strong view’ is the *integration* model. In the words of Stenmark:

...someone who limits the area of contact to metaphysical presuppositions, methods of inquiry, conceptual tools or models and the like, exemplifies the weak view, whereas the strong view adds to these the theoretical content of science (theories) and religion (beliefs and stories). (Stenmark 2010, 282)

It is unnecessary because like his (science and religion priority reformative views) the weak and strong views are basically saying relatively the same thing just with a slightly different slant, one leaning more towards science and the other towards religion. So instead of putting a decent methodology forward to deal with this relationship Stenmark is merely arguing semantics at this point, and in many ways over analysing this concept, making it far more complex and less friendly to deal with than it needs to be. Though it may seem to be the case, I am not deliberately trying to confuse the issue by presenting Stenmarks’ points in a rather unruly and disorganised fashion, this is merely the way in which it is presented to his reader, a virtual mind-field of unnecessary terms and categorisations. If this confusion was not enough, he decides to add another variable the supportive reconciliation view. Unlike the more ‘negative reformative view’ this model is not concerned with science and religion changing, nor is it interested in demonstrating some form of tension or conflict (which we see in the reformative view) but it encourages mutual support, *support* being the key word here “reinforcement or confirmation” (Ibid 283). These views are those held by individuals like Davis, and philosopher of religion Richard Swinburne, that see science and religion as being mutually beneficial and supportive of one another.

Though I would go further to explain more models like the ‘replacement model’ and Stenmark’s ‘conservative’, ‘traditional’, ‘liberal’ and ‘constructivist’ “reconciliation” models the question I would ask however is how useful would it be to do that at this point? We already have a general understanding as to the ideas behind Stenmark’s ‘reconciliation models’ therefore adding to an already overreaching list would be counter-productive at this point. As apart from informing us as to other views and models in this debate (which we should be aware of no doubt) I believe it would defeat the true purpose of this section; which is to ask the right questions about the best approaches to take when dealing with the ‘science’ ‘religion’ relationship and the major problems that arise from these approaches. However with all of that said it is perhaps worthwhile to see what exactly it is that we would be missing if we did not cover these in detail. After all they are also a cause of the typological problem as we will see. Below is what Stenmark has to say about these models.

According to the conservative reconciliation model, it is primarily science that needs to change its content, whereas traditional Christianity is to a very large extent satisfactory as it is...According to the traditional reconciliation model, science might need to change some of its content whereas Christianity certainly needs to change some but not most of its tradition content...According to the liberal reconciliation model science is fine as it is, it is rather Christianity that needs to change most (but not all) of its traditional content...There is also a fourth model worth exploring, although I would hesitate to identify names of scholars in the dialogue who would presuppose it I writing. According to the postmodern or constructivist reconciliation model, neither science nor (traditional or liberal) Christianity is acceptable as it is; rather, both need to change radically. The starting point would be with radical postmodern literary theory and scholars such as Nietzsche, Derrida, Foucault and Rorty...(Stenmark 2010, 288-289).

It is perhaps clear from the excerpt above that there is not a great deal of point in addressing these models to any greater extent, because as one can see they are very firmly rooted in Stenmark's 'reformatory' camp, hence they are not necessary to cover. The only differences between these models and the 'reformatory' model that we have looked at previously is that Stenmark seems to have added another sub-category that is made up of four other models, one can hazard a guess that he wanted to be as fair as possible in representing all sides of the argument which is fair enough. His explanation of this is that "...it might sometimes be necessary to distinguish between more conservative and more liberal groupings within these religious traditions, or denominations. At any particular time there could be major differences between the views held by conservative and liberal Christians on any of these issues" (Ibid 287). Though this is perhaps true is this actually benefitting this field of study?

As it seems as though a great deal of effort has gone in to saying pretty much the same thing merely considering the minute detail and differences; and although scholarship such as this in many ways should be commended because of its precision, one needs to step back and consider what or whom for that matter is benefitting here; apart from reinforcing a difference in opinion, which should already be a given. Could this not have been said with a few examples and an explanation of these differing points of view, rather than separating these views into more ambiguous and superfluous categorisation? For instance most of the scholars that we have looked at in this thesis like King, Asad, Dubuisson, Harrison and the like warn us against such categorisations and present us with better and more effective ways of dealing with questions on 'science' and 'religion'. One recurring theme is that not only do we need to be aware of our bias and the bias of others (including opinions) but when approaching the study of complex phenomena like science and religion it needs to be done in a precise, non-reductionist, orderly, and well supported fashion. In Stenmark's case the major difficulty is over extension and overly complicating issues that don't necessarily need to be. That is to say that although science and religion are complex phenomena Stenmark is more interested in categorising the opinions of others rather than finding a useful solution or a better methodological approach to deal more effectively with the 'science' 'religion' relationship. He

gets so bogged down in the opinions of others and categorising these opinions more completely that he in many ways (as well as other individuals we have looked at) loses sight of the problem at hand, and that is relating science and religion effectively. That is not to say that he does not do a fair job categorising others opinion on the matter (as he does), but what use are these opinions in academia when we should be interested in hard core facts?

For instance another diminutive difference in these models, that leaves one asking the question why point these details out in the first place (as it merely makes one suspect that the author is trying to stretch a point further than it needs to go) is that the views that he feels necessitates their own categories only differ in slight degrees. That is to say that there is only a slight variation in scholastic opinions as to the degree of change that science, religion (Christianity primarily), or both have to undergo in order to reconcile science and religion. This is in many ways what Drees is trying to avoid when he states that “Other classifications give more prominence to the way cognitive claims in religion (theology) and in science are related...I intend to make it clear that [they] do not stand in isolation” (Drees 1996, 45).

Additionally on a more contextual level the differences are merely in the wording used to emphasise these changes. For instance, he states that the ‘traditional model’ sees that science *might* need to change some of its content but Christianity *certainly* needs to change; whereas the ‘liberal reconciliation model’ sees science as being fine where it is, so to speak, but it is Christianity that needs to change most. Apart from the wording and minor difference here and there in the emphasis (which was added by the author of this thesis) is there actually any major difference in what these individuals are saying, really? Isn’t the overall argument being addressed, regardless as to in what fashion, suggesting to some degree or another some element of change (or reform)? One could go as far as to say that by emphasising this point and looking at this argument on such a minute level that Stenmark is merely arguing semantics and making things far more complex than they need to be; and as a result is not adding anything really useful or informative to the academic mix. Regardless as to how fair he believes he is being in his representation of these slightly differing viewpoints, he has merely stretched out a point that he could have resolved in a number of paragraphs rather than ten pages.

Looking At the “Bright Side”: The Positives of This Form of Scholarship

In many ways enough information has been supplied here and previous sections to show ample difficulty with all of these viewpoints; however it is important that we also remain as objective as possible. In other words, if we are going to point out the current problems with these models and this area of study then it is important that we also point out the positives associated with

this form of scholarship. Therefore the questions that we should be asking are what is the point of these views and are they in any way useful to our understanding of the science/religion relationship? Without considering other important aspects of this debate (which we need to) like the history of the science/religion relationship, the constant fluctuations in definitions of the terms, the complex and longstanding relationship between the religious and the secular in the west; and not to mention the relationship that the west (mainly Christianity) has had with science, the seemingly obvious answer to this question is yes. The reason for this is that the relationship between science and religion does exist and means a great deal to a number of people and this area of study emphasis its popularity, at least in academic circles. Furthermore, despite all of the problems associated with this form of scholarship it is quite valid in what it is purposing, and that is in many ways (even though it may not be aware of this itself) is that there is a complex relationship between science and religion in the West, and this field of study merely emphasises this dynamic.

In other words it illustrates that science and religion have a *history*, I mean this from a more figurative sense of the word, as in an eventful past, rather than a chronological relationship (although this too does and has existed in the west for a very long time as we have seen) and because of this rather eventful history there is a present stigma that is attached to it and in many ways, these models regardless as to the multitude of individuals that have proposed them, exhibit a specific and often popularist view held by many scientists and theologians. Even if we totally disregard both Stenmark's and Barbour's models, what our Hawkings, Polkinghorne, Dawkins and Dennett tell us is that these views are often ones of conflict or harmony.

Secondly, like all areas of study there are particular rules, methodologies and the like that are followed, and typologies are a large part of this framework (as is demonstrated above) therefore they have their purpose. For instance they not only demonstrate and familiarise us with systems and methods that have been proposed and are popular tools in this field of study but give us guidelines to consider in our overall approach to this subject matter. As is suggested by Russell "They can be quite useful both to the specialists wishing to clarify subtle distinctions between positions and to non-specialists, including the media, educators, and clergy, by providing a basic orientation to the field" (Russell 2000 <http://www.inters.org/dialogue-science-theology> accessed by author September 4th 2013).

That is to say that, because they are popular viewpoints and positions that have been taken in regard to the science/religion relationship, they give us a clear insight as to the fashionable perspectives that are currently flying around in academic circles. After all one of our main reasons for choosing Barbour for this study was his popularity. These viewpoints are even evident where scholars are trying their best to be as open-minded and as objective as possible.

As an example of this two recent works spring to mind the first is Bentley's *Edge of Reason* which is an interdisciplinary approach to the subject of science and religion, and the second is *The Routledge Companion to Religion and Science* which in many ways is less interested in dealing with different approaches to the science/religion phenomenon and more interested in 'showing off' similarities between the two by invoking clever rhetoric (as in Raman 2012) or being rather apologetic in nature as. So for a fairer representation and in many ways a more evidenced perspective I will return to *The Edge of Reason* to make my point.

For instance within *The Edge of Reason* (2008) which in many ways is an incredibly objective and different approach than the one aforementioned (which we will look at in a bit more detail in a moment) to this study we can see these viewpoints represented in one form or another in most of the arguments and questions posed. For instance Simon Coleman in his essay titled "Science versus Anthropology, not Religion" bases this essay on the contestation between science and religion. Though it is evident by his comment "When asked to write this book, my original question was whether scientists should *contest* religious belief, rather than *challenge* them..." (Coleman 2008, 39), that he was asked to relate his thoughts on the matter specifically for the addition to this manuscript. However, what is even more apparent is the supposed reason behind being asked in the first place. The main rationale behind this seems to be because the 'contest' between science and religion is obviously a very popular understanding of this relationship and is of interest to the point that it was felt by the scholars and editors of this book that it needed to be addressed.

However this is not the only view that is at the heart of this literature as both the reconciliation models and the conflict models make an appearance. This is most clearly illustrated not in the essay titles themselves (although it is also evidence here) but in a number of the sections of the book. For instance, Part I is titled "Should scientists challenge religious beliefs in modern society"; which primarily lends itself to solving problems relating to this conflict. Part III "Is religion harmful? From brains to societies"; which takes more of a closer look at religion in society, primarily focusing on issues relating to the conflict between science and religion, and finally Part IV "Can science itself inspire spiritual wonder?" (2008 v-v1); which takes this idea of possible reconciliation and 'bridging the gap' even further.

Thirdly and perhaps most importantly these models make it easy for us to compartmentalise these ideas in our heads. That is to say if these things are brought to us in neat and tidy packages it is much easier for us to assimilate the information. On the adverse however it provides us with this false and often dangerous idea that all the hard work is already done for us, and that it is done properly; leaving us to believe that all we need to do is read the study in order to understand the problems at hand. Sadly, when we delve a bit deeper below the surface we find that this is not entirely the case; as although these seem like simple classifications the

concepts and phenomena that are being classified are very rarely taken into account. For an example of this let us refer back to Drees' very in depth classification, one of the titles in his "challenge" column is Experience (Drees 1996, 45). Although he makes it very clear to us that he is assessing Christianity what this particular 'challenge' demonstrates to a researcher (like myself) is that he is only looking at one specific definition of religion, the experiential. He even dedicates a chapter in his book to experience as evidence. This in itself sends off alarm bells because there is no proof here or anywhere in his thesis that he is even aware that differing definitions and approaches to religion actually exist, he merely assumes that 'religion' = 'experience'.

Fourthly and finally by categorising these viewpoints it makes this debate more appealing to the Western university, and in many ways justifies it in the mind of scholars as an important contributory field within the academy. Not only is the debate appealing but it is also (in the scheme of things) a relatively fresh approach to what was once a stagnant area of study at least since the early 19th century with the publication of the very popular and famous *Natural Theology* (1802) by William Paley (Dixon 2008 14). However, it wasn't until the 1960's that "science and religion" would take its place as a viable and distinctive area of study within academia. This is supported by Dixon (2008) who writes that:

However, from the 1960s onward 'science and religion' took on a more distinct existence as an academic discipline. In 1966 the first specialist journal in the field was found in Chicago—*Zygon: Journal of Science and Religion*. The same year so the publication of a very widely used textbook, *Issues in Science and Religion* by the British physicists and theologian Ian Barbour ... (Dixon, 2008 14)

Another appealing aspect of it is that it is also very interdisciplinary, or at least it tries to be, and we can see this in the more current work in the area especially the works like the *Edge of Reason* that take a more distinctive approach to this relationship and is more open to it. Therefore understanding these categorisations in many ways sets the scholar of science and religion apart from the rest of the system making him unique in his skill set. This puts one in mind of King's comment where he writes, "...that religion is *sui generis*—that it is a fundamental category of its own, is often put forward as a defence of the autonomy and irreducibility of religious phenomena in the overwhelmingly secular institution of the modern university" (King 1999, 12). Though he is writing about religion, in many ways it echoes what appears to be happening here, and that is the need for science and religion scholars to legitimize their area of expertise within the academy. Furthermore, to the more overly optimistic individual it may also appear as if this area of study is truly doing something unique, different, and innovative by combining two very different and distinct disciplines that have been sadly separated in our western minds.

Problems, Problems and More Problems

We have looked at some positive points related to this form of scholarship, now to the negatives. Though we have covered quite a bit in relation to this above, there are a few more points that I would like to address further. For instance let us return back to the usefulness of any of the categories mentioned above. From what has been noted thus far and in light of the evidence that has been provided, they appear to be quite inadequate in providing us with any useful information relating to the science and religion relationship. In fact the only valuable information they do provide is outlined above, such as the different types of views that are prominent in the field, and to emphasize the popularity of the topic of study. Though this does seem to have some merit in many ways this debate is not advertised as such. For instance, although Barbour does look at certain similarities between science and religious methodologies, like the best way to categorise and also relate these two things (as we have seen above) he mainly does this through either his Dialogue or Integration models; supplying the reader with the understanding that his main focus is to demonstrate that science and religion are in many ways compatible and harmonious even if this is only intellectually. However he does this in a rather unexpected way by suggesting to the reader that “I proposed a fourfold typology as an aid to sorting out the great variety of ways in which people have related science and religion” (Barbour 2000, 1), I use the term unexpected because he in many ways finds justification for the harmonious relationship between science and religion not through hard-core facts or evidence, but through individual opinion.

Though at first glance there seems to be no problem with this rather noble effort, when we dig a bit deeper we see that there are a number of problems with his typology, primarily its significance and usefulness as a method of verification. For instance, Barbour’s main purpose for this typological system is to provide a method of sorting out the many different views on the science and religion relationship (Ibid 1). Though Barbour may see these models as a good way to bring scientific and religious insight together, there is no real indication as to how this is done or as to the importance of such an endeavour. After all, it does not seem to have much of an appeal to those individuals within this field of study that are interested in hard core facts rather than particular opinions, we need only to refer back to our comments from Drees (1996) and Ruse (2010) in the previous section. With that said however, there is a hint as to Barbour’s intentions on the matter. He seems to believe that this typology does benefit society because it demonstrates, through the views of others, that science and religion have the potential to be harmonious in today’s western society, a society that on the surface appears to be somewhat hostile to either one side or the other.

Furthermore, it is crucial that we point out the very narrow scope of Barbour’s study, as it appears that although he is interested, as he says in “sorting out ways in which *people* have

related science and religion” (Barbour 2000, 1) (I have italicised people in this instance to emphasize an important point) the [people] that he seems to be referring to are theologians and scientists; the logic behind this claim is that the opinions he addresses in his works are mainly those of theologians and scientists (Barbour 2000; 1998). Even though this is fine from a certain point of view, so to speak, this study lacks academic integrity. That is to say that it is dishonest to label this particular sub-culture of individuals as *all* people. This can however be easily rectified if Barbour was clear as to what people he was referring to, in this instance primarily middle-aged and highly-educated-middle-to-upper-middle-class-western men who are scientists-*cum*-theologians, and also more than likely, members of the Society of Ordained Scientists (after all Peacocke founded the organisation and Polkinghorne pays tribute to his “fellow” members in his *Scientists as Theologians*). That Barbour is focused primarily on this subculture of individuals is quite obvious not only in his choice of words used when referring to these views (primarily the use of loaded Christian language as we will see in the following examples); but in his choice of sources (Barbour 2000; 1998; 1990; 1974). With that said, it must be noted that although Barbour does not specifically state that he is talking about *all* people, one is still left with the rather false impression that he is dealing with a much larger and more representative demographic.

That is not to say that Barbour does not mention female thinkers or for that matter individuals that he refers to in a very imperialistic (with hints of the ‘primitive’) fashion as “Third World” critiques, as he dedicates at least a page or two of his 1998 work to these individuals (to be fair, Barbour is writing ‘with thoughts from another age’, and when this was written the term Developing Countries was not in wide and popular use). Furthermore, though female scholars make an appearance on a number of occasions in the same book, it is disappointing that Barbour is so intent on focusing primarily on what he refers to as ‘feminist critiques’ of science and scientists for that matter, stating that “all of these authors seek a *gender-free science* within the prevailing norms of scientific objectivity” (Barbour 1998, 148). It would have made for a much more fruitful and fascinating inquiry if he had focused more on the contribution of ‘third world’ and ‘female’ scientists to the science and religion debate rather than focusing on their criticisms of western religion, and what comes across as illogical ranting from female scholars on the scientific man. This is demonstrated by Barbour when he writes that:

All of these authors seek a *gender-free science* within the prevailing norms of scientific objectivity. Male biases are to be rejected not simply because they are patriarchal but because they are “bad science”, and they can be corrected by a greater commitment to objectivity and openness to evidence. But some feminists go much further in advocating a new *feminist science*’ and in rejecting objectivity itself as a male ideology...I cannot agree with these postmodernist feminists...(Barbour 1998, 148 and 149)

Though one can criticise Barbour for being a bit too exclusive as to his choice of demographic, this is not that surprising as only a select set of individuals, primarily those from white western

Christian backgrounds, have contributed to this area of study.⁶ This is of course all well and good and quite valid especially if you are interested in the opinions of this specific sub-culture of individual. However, if one is looking for sufficient evidence pointing to the complex and colourful relationship between science and religion and how it has impacted today's society or has been represented in the past, one will be greatly disappointed, as it does not feature here. In fairness to Barbour however, this seems to be a major oversight of many published works in this field, one need only to glance at a number of Polkinghorne's or Peacocke's books to see that this is the case. That is not to say that Barbour completely disregards the history of science and religion, he makes a good effort at approaching it in his *Religion and Science*, but any attempt to show a hint of complexity in this relationship and their history, or for that matter, an evolution of the terms, is worryingly lacking; and in light of the evidence that we have looked at thus far, his representation of their history is less than adequate as it comes across as merely elementary, one sided, and a rather anachronistic reading into the past. One such example that stands out from the rest (although this text is riddled with many of these suppositions) is where he writes that "The seventeenth century was a period of such crucial and rapid change in outlooks that we may justifiably speak of it as marking the birth of modern science" (Barbour 1998, 3).

We have already discussed the history of science in the previous chapter and it was evident from what was presented that the seventeenth century was far from the era of the 'birth of modern science' and to even read 'modern' into it is anachronistic in itself. To make matters worse this is coupled with "but science also influenced religious thought indirectly by calling philosophical assumptions into question..." (Ibid). Even though one knows where he is coming from and he indeed explains this to us (primarily the question of heliocentrism v geocentrism) the fact that he even refers to 17th century 'natural philosophy' as 'science' shows his lack of knowledge as to the complex history of science and religion. A further problem lies in the fact that he believes that by stating that "these chapters of historical background do not try to describe all the complex factors in the growth of modern thought in either science or religion" (Ibid) that he is exempt from pursuing (even in brief) these pertinent issues. However this in itself is not surprising because Barbour is not a historian or sociologist for that matter. That is to say that if he was, it is more likely he would see the pertinence of these issues and be aware of the myriad of difficulties with the integration of science and religion in the first place. Not to mention he would be more keenly aware of the problems associated with putting such complex phenomena in such neat and tidy categories.

With that said, perhaps I am being a bit unfair as it has been pointed out above there is a great deal of merit to be found within this type of scholarship, it is also relatively apparent that many

⁶ see examples presented earlier in this chapter as to why this may be the case

academics within this field of study find Barbour's typologies quite valuable (as is demonstrated above), but one could perhaps take Barbour and others with more credence if they were a bit more honest with what they were trying to accomplish with their work. That is to say that instead of insisting that they are providing us with better ways to approach the science/religion relationship (through others' views mainly), that they specify that what they are truly doing is finding better ways to harmonise science and Christianity (and modern Christianity at that); whilst staying true and sticking very closely to their religious (primarily Christian and therefore often bias) heritage as we have seen in earlier examples. The unfortunate fact is that they are perhaps not even aware of the fact that they are coming from such a value-laden position (one only needs to open a Polkinghorne (1995, 1996) text to see this) even though to the outsider their choice of method and inability seems to suggest otherwise. With that said and despite this problematic oversight it seems evident through their unfaltering optimism that they are altruistic in their intentions and honestly believe that they are providing 'western' society with a real means to overcome the many problems associated with science and religion and to help the two live in harmony regardless of cultural background and diversity.

After all Barbour presents us with explanations that say just that, "However many people today are seeking a more constructive partnership...[they] are aware of the limitations of their field and do not claim to hold all of the answers. They hold that we can learn from each other. Some theologians are reformulating traditional ideas of God and human nature, taking the findings of science into account while trying to be faithful to the central message of their religious heritage" (Barbour 2000, xii) . It is clearly obvious from a great deal of the evidence thus far presented that Barbour's typologies are quite popular primarily because he is representing many different views on the science and religion debate. That said, it must be noted that like Stenmark, Barbour believes that two of his models are more appropriate and helpful in trawling through the murky waters of the science/religion relationship and representing these two fields fairly, so to speak; these models are the Integration and Dialogue models. In regards to these he writes:

In summary I believe that Dialogue and Integration are more promising ways to bring scientific and religious insights together than either Conflict or Independence. In responding to the problems presented by the monarchical model of God, I find exciting new possibilities in the use of specific ideas in recent science to conceive of God as designer and sustainer of a self-organizing process and as communicatory of information...I am aware that a single coherent set of philosophical categories may not do justice to the rich diversity of human experience (Barbour 2000, 180)

Let's note the problems with this above excerpt by posing a question. Though we can see where Barbour is coming from in many respects, and that is to demonstrate the insights on science

and religion and presenting us with what he believes is the most viable way to do this, what is the point of these categorisations? In other words, what does it add to the mix? Perhaps a better way to approach this question is to look at what it does add, at least what can be gathered from Barbour's perspective anyway. For a start it presents us with a number of ways in which we should understand our relationship with God; how others understand their relationship with God and science; how God is connected to the creation of the universe; how God is not only 'designer' but 'sustainer' of the universe; and lastly but not least, how science is a way to worship God and prove through its insight that God does exist (in a strange 20th century theistic fashion). So, with that said, it provides us with a great deal of information on how others view God and science. Furthermore it can be argued that in understanding others' views on the matter (that is on science and religion) these views can validate and also justify our own thoughts on the science/religion relationship especially if we are of the view that science and religion are harmonious and compatible.

Problems? Primarily the focus on an obviously Christian God. It must be noted that the focus on the Christian God clearly reflects Barbour's own feelings and position on matters of his own faith; after all he perfectly fits the demographic that we spoke of early. Therefore it is not surprising that there is such a connection to the Christian God and science in his work. As a position, it is all well and good and makes perfect, logical sense, especially if you are of a Christian persuasion so to speak, but it also raises endless problems if you are not Christian; primarily the approach loses all of its validity, credence and significance. Not to mention if you are not Christian (and sadly even if you are) these views may come across as being rather pretentious as it assumes that there is only one God, and that science is linked to that God and *his* creation of the universe (forget *hers* or *theirs*). In other words this view completely and utterly disregards any other creator's/creators' influence on the universe or for that matter others' beliefs of universal creation (and we have not even begun to approach science's impact on other religions). It must also be noted that the more these glaring problems with categorisations are ignored, the greater the threat of them being used inappropriately. It is then only a matter of time before the entire debate finds itself drowning in a sea of unopposed and false views; based primarily on the fallacy that the *Dialogue* and *Integration* models, 'inclusivism', or for that matter the 'reconciliation' models can be applied to all religions. Not to mention it supports fears that there is a major bias at work here, and emphasises an additional worrying factor; that is that the term religion is used dangerously loosely and incorrectly in this form of scholarship.

That is not to say that Barbour does not clarify the point that he is taking. He does tell us that he is looking at these issues through a primarily Christian lens (although he does not use these words exactly), nor can it be said that others like Ward, Peacocke, and Paul Davies are not

aware of this bias in one way or another. However, even with the best of intentions, problems arise when these individuals inject and project their hugely value-laden western opinions and ideals on non-Western traditions. One such culprit who uses terms, concepts and his own ideals too loosely in his scholarship is Polkinghorne (although he appears to have the best intentions) who seems predisposed to and in agreement with Barbour, that the integration and dialogue models can be universally applied to the rest of the worlds 'religions'; or as he likes to refer to them on more than one occasion as "historic faith traditions" (Polkinghorne 57, 1996). Though a poetic and rather flowery term I am still uncertain as to what he means by 'historic faith tradition'. Plus his use of the word "faith" in this context is also quite troubling (Ibid); especially as Cantwell Smith and Dubuisson are quite quick to point out that the word 'faith' is primarily a Christian construct that in many ways expresses a unique western mentality (as is pointed out in Chapter One of this thesis). For instance, when referring to Barbour's models he believes that the best way of dealing with the problems associated with 'religious diversity' is in using the idea behind 'inclusivism' (D'Costa's concept mentioned earlier in this chapter) which he believes draws parallels to Barbour's Pluralistic Dialogue. In reference to this he writes that [it] "has a kinship with the stance on inter-faith matters that is often called 'inclusivism', though the latter places a clearer emphasis in the uniqueness, and not just pre-eminence of Christ" (Polkinghorne 1996, 60)—though I am uncertain how "inter-faith" and "pre-eminence in Christ" can go hand and hand even in this context. With that said however, Polkinghorne seems convinced that 'inclusivism' is the lynch pin, so to speak, in introducing these views to other traditions.

An additional problem that arises when categorising particular views of science and religion, and in many ways this goes hand-and-hand with Barbour's choice of demographic, is that we find individuals like Polkinghorne primarily occupying camps of like-minded individuals, meaning that there is really no outlet for debate or criticism. After all, how can one truly argue in an academic setting that one's opinion on matters relating to a yet-to-be-proven-to exist-transcendent-being like god and his relationship to science is academically relevant or viable, for that matter, unless of course we were looking at this in a more sociological context or a history of ideas settings, in which case thoughts on matters relating to certain phenomenon become much more viable and relevant academically. Sadly, that is not what our experts like Polkinghorne, Barbour, Peacocke, and Ward (among others) are doing. In a somewhat ridiculous analogy what they are 'debating' is akin to people arguing in an academic setting who is a better Wizard, Dumbledore or Gandalf. On a more serious note I think it is fairer and also more academically viable to go with Dixon's view when he states that "debates about science and religion are, on the face of it, about the intellectual compatibility and incompatibility of some particular religious belief [mainly Christianity added by author] with some particular aspect of scientific knowledge" (Dixon 4). The problem is that our leading

experts in the field are not interesting in ‘calling a spade a spade’, even though this in many ways would be a more credible approach to take. They are more interested in pointing out what views, or for that matter whose views, are better for relating science and religion. In light of that, I think that Gandalf is a greater wizard than Dumbledore because he was/is a *Maiar* and therefore a virtual god (which is equally superfluous).

As we have seen thus far, any real form of debate at least in regards to these methods and views are notably unrepresented in this field of study; to the point that even calling this the science/religion debate is oxymoronic, as there is no real debate present, only a forum of like-minded individuals presenting different views on particular matters pertaining to a subject that they are passionate about. Dixon says it best when he states that “what are sciencereligion debates actually about?—is that they are about these issues of intellectual compatibility” (Dixon 2008, 4). The problem with surrounding oneself with like-minded individuals and no real peer review is that it becomes increasingly more difficult to see your own biases as well as ignorance on a particular issue, and then one finds oneself living in a delusional world believing that one’s work is academically credible. When the unfortunate reality is, that one of the only plausible reasons that scholarship such as this and many we have looked at in this ‘debate’ are accepted, is because in the 1990s these were fresh and relatively innovative ideas, yes, but primarily because people are not questioning academic integrity; because many of these scholars are known, trusted and distinguished. What’s more is that these scholars are primarily surrounded by like-minded individuals who harbour the same biases and value-laden western ideologies as they do. This sad fact is evidenced in a statement presented by Polkinghorne on the ideas of his peers (all of whom we have looked at previously):

...agree in seeing their task as concerned with the construction of a comprehensive and unified view of reality, within which both theology and science are contained and are able to interact with each other...all three authors agree that science and theology are indispensable partners, together with other forms of human inquiry such as aesthetics and ethics, in the even-handed evaluation of all levels of the explorations of reality in a search for a unified account of resulting human knowledge (Polkinghorne 1996, 11 and 12)

That is not to say that all individuals within this area of study are oblivious to their biases and ideologies. For one Peacocke, who despite his belief that all religions lead to the same outcome God (which in itself is hugely one sided not to mention pretentious and incredibly westernized view) he at least has the decency to mention his shortcomings as a Westerner. He writes that “a Western writer seeking to interpret the religious experience of human beings to a Western readership could do best with reference to their common Christian inheritance...but in no way is this meant to imply that other non-Christian religions cannot be a path to the reality which is, as I shall argue God” (Peacocke 1990, 3). With that said it does not stop them from making huge suppositions regarding science and religion, as is demonstrated in the example above where Peacocke believes that all paths lead to God. With that said others seems completely

oblivious to their short-sightedness. For instance Polkinghorne seems completely unaware of the problems that can arise from viewing and also reducing a complex phenomenon like science and religion to something that can be understood and integrated into all religions. To the extent that he believes that we are all speaking about the same God (well at least Muslims and Jews are). In regards to other religions, even though he strongly believes that many of his concepts can easily translate to other 'religious traditions' he freely admits that he finds their beliefs 'extreme and perplexing' (Polkinghorne 1996, 61). His ignorance becomes fairly evident especially to those versed in Buddhism and Hinduism by his comment that "we need to ask our colleagues from the Hindu and Buddhism tradition...with their talk of the place of...(illusion), how they see these [less realist] matters" (Polkinghorne 1996, 62) because the concept of illusion is *not* that simple to comprehend, not to mention the same for all traditions involved. He makes his ignorance further known when he comments on the fact that he has found it helpful, when understanding other traditions, to look at those authors that are open-minded but articulate these ideas into a Christian understanding.

They are surely all speaking about the same god, but they do so with very different voices. When we come to the religions of East Asia, the contrast become much more extreme and perplexing...The writers I have found most helpful are those who approach the other religions with a sympathetic openness, which is nevertheless rooted in a clearly articulated Christian understanding. I must hold to the truth of my heritage: The Christian hope lies not in the attainment of non-desire, but in the purification that least to right desire... (Polkinghorne 1996, 61; 1996 185-190)

The scientist, describing a physical reality that is profoundly rational and whose evolving fruitfulness has depended upon an anthropic 'fine tuning' of the fabric of the universe, is giving an account of a world that is readily consonant with the religious traditions of the Middle East, which share a realise understanding of a created universe. We need to ask our colleagues from the Hindu and Buddhism traditions, which to occidentals seem to take a less realist view with their talk of the place of *maya* (illusion), how they see these matters (Ibid 1996, 62).

Moreover, he seems completely unfazed by his very western views on the matter of such things, even his use of 'occidentals' has imperialistic undertones (though these are merely projects of the thoughts of a man of his time). With that said, Barbour himself is also quite in favour of the idea that these categorisations are universally relevant (at least in his later works) and do in many ways apply to all religions in one way or another. This is evidenced by a paragraph that appears and then later reappears in a later work (it must be noted that this is virtually the same paragraph in Barbour 1998 and 2000) "All models are limited and partial, and none gives a complete or adequate picture of reality. The world is diverse and differing aspects of it may be better represented by one model than another" (Barbour 1998, 332; Barbour 2000, 180). With that said however he too [Barbour] had his worries about problems that can arise applying these models to all religions where he writes that "The emergence of consensus in religions seems an unrealizable goal. There are differences in cultural context which are

intertwined with religious beliefs; hopefully any future global civilization will preserve considerable cultural diversity, and with it, religious pluralism” (Barbour 1974, 178). It is almost regrettable that his later works moved away from the idea that these categorisations were inapplicable to all belief systems, to the more inaccurate observation that they applied to some but not all ‘religions’; especially when reality tells a very different story. That is that these categorisations are only useful when referring to science and Christianity, not science and non-Western belief systems.

Speak To Me As To Thy Thinking's, As Thou Dost Ruminat: Thoughts and Ruminations

I have and would further suggest that such ruminations as well as major generalisations do not belong in academia, especially if they are entirely focused on God (and the Christian God at that) this seems more suitable for a forum on theology and philosophy not as one of the ‘ten commandments’ of the science/religion debate, and a model that so many individuals within this field swear by. Though one can say that Barbour’s purpose may have been to find a better means to understand the relationship between science and religion, what he has found is a decent model for understanding people’s views on science and Christianity, this is obvious in the fact that he writes that “The Spirit is God working from within in both human life and the natural world...’Come Holy Spirit, renew thy whole creation” (Barbour 1998, 332). With that said however, it is striking that such untestable and obviously biased views are accepted within academia as a credible method for dealing with a relationship as colourful, historical and complex as science and religion without questioning the glaring problems associated with these views. Especially as Barbour is basing all of his ideas on two models that represent nothing more than two idealistic opinions on how to make science and religion work. Opinions that are not based on fact but that are based primarily on interpretative beliefs. This is only compounded by another rather pretentious quote by Barbour that suggests, although poetically that everyone’s relationship with God is different and therefore should be accepted. He writes that:

The world is diverse...The pursuit of coherence must not lead us to neglect such differences. In addition, the use of diverse models can keep us from the idolatry that occurs when we take any one model of God too literally. Only in worship can we acknowledge the mystery of God and the pretensions of any system of thought claiming to have mapped out God’s ways (Barbour 1998, 332).

This bias and subjectivity is indeed a problem. The reason for this is because it makes us painfully aware of not only the internal problems associated with this form of scholarship but

also the external. What is meant by this is that because this is a relatively popular field of study there is a great deal that is overlooked, almost recklessly for the sake of popularity, or so it seems; like the disregard of proper research methods and practices. That is to say that so much of what we are left with in this field takes on the guise of popular opinion rather than works of decent academic scholarship.

To illustrate this let us return back to Polkinghorne. I noted in the previous section that much of his work, especially his later works, related to science and religion, are more like ruminations rather than scholastic and testable hypotheses; what is meant by this was that these ruminations are nothing more than his opinions on matters relating to science, theology and God, yet despite the fact that they come across as nothing more than his opinions, these were published from the Gifford lectures, which is in essence is a very prestigious lecture series. The Gifford Lecture hosts are so certain of their prestige that they are happy to suggest in big bold letters on their site “The Gifford Lectures. Over 100 Years of Renowned Lectures on Natural Theology” adding that “The prestigious...Gifford Lecturers have been recognized as pre-eminent thinkers in their respective fields” (www.giffordlectures.org/overview.asp accessed by author September 25th 2013).

The question to ask here is how constructive is this form of scholarship, especially if it is primarily interested in presenting the views of people without actually questioning these methods or the relevance of said views, such examples are the myriad of different approaches that have been presented throughout this chapter, like Stenmark and Barbour’s for example. As has been demonstrated we see the same type of lackadaisical scholarship presented by many scholars within the study of religion. I suggested that one of the possible reasons for this was due to the lack of criticism as well as the immense popularity of the subject area. With that being the case Polkinghorne’s thoughts on life, the universe, and everything were still accepted by them [Gifford] as a legitimate, not to mention prestigious, form of scholarship. This is worrying, yet one cannot help to ask the question why? How can we even open a field of study to something that is based primarily on objects of opinion rather than properly evidenced and structured data and hypotheses? I am not suggesting that the same methods of verification apply to the sciences as they do to the social sciences and humanities, but in order for something to be a credible and reliable form of scholarship it needs to follow and should follow specific rules of engagement. That is not to say that some form of subjectivity is not required or for that matter encouraged for certain projects. For instance Drapuea illustrates how if one is careful, subjectivity may pose as a benefit in certain areas of study, his area being Psychology. For instance he draws on an example in his 2002 article that uses such a method. However with that said he is also keenly aware of the difficulties with such an approach and quite willing to share his concerns with the reader. He writes that:

Subjectivity in research is a topic that has led more than once to much discussion and to many debates...On the other hand, many researchers suggest making use of subjectivity and drawing on one's inner experience in order to better understand the subject of a study. For them, distancing themselves from the subject through the use of standardized or semi-standardized methods only keeps the subject... at a distance. Unfortunately, such attempts also present certain risks such as projection on behalf of the researcher, limitations due to the researcher's own blind spots, and a sometimes unclear demarcation between what belongs to *subjectivity* and what belongs to *delusions*...I also believe, however, that subjectivity can stand -per se- in the way of "truth", or at least throw findings off track. As such, it must also be *penetrated* as much as possible. The study of subjectivity can then give the researcher better leverage in order to understand the object of his study. This last point, combined with efforts to triangulate the findings, can only be considered as a postmodern perspective where rhetoric is replaced by demonstration. (Drapeau 2002, www.nova.edu/ssw/QR/QR7-3/drapeau.html)

If one were to approach a project using this method of inquiry, it is evident in the above that they would have to be keenly aware of a number of problems associated with this form of scholarship and the effect that this may have on the credibility of his/her research. Primarily, the researcher needs to be honest to his/her audience, objects of study, and him/herself. In other words we must continually mark ourselves and be very aware of our own biases and how they may affect our research and our outcomes (it becomes more evident by the work that we have looked at above that this was not the case). To elaborate, Drapeau informs us of some difficulties that may be encountered by the researcher that decides to take up this mantle so to speak. He refers to how subjectivity may be linked to 'defence mechanisms' and may cause problems for the researcher because it blinds him to a number of core principles that a researcher should abide by. For example, he names a number of potential problems that could service such as: "refusing to acknowledge some aspect of external reality or experience"; "Displacement used in order to deal with conflicts by generalizing or redirecting a feeling or thought onto another less threatening object"; "Intellectualisation through which an individual deals with conflicts, thoughts or feelings by the excessive use of abstract or generalized thinking"; and "projection"--this idea of dealing with conflicts by falsely attributing feelings and thoughts to others. Furthermore he notes that such subjectivity can influence our work to the extent that "what we find may be nothing more than what *we* were *specifically* looking for, sometimes without even knowing it" (Ibid 2002). We can see a number of these problems demonstrated by the scholars we have looked at thus far.⁷

This being the case the question that should be posed is does this form of subjectivity belong in the science/religion debate? McCutcheon seems to think otherwise. For instance he has this to say about this form of discourse. He writes that "Although the *sui generis* claim makes

⁷ For instance "projection" seems to be one of the core problems that is continually resurfacing in this scholarship. We have already pointed out (in the previous section) that many of our scholars like Polkinghorne and Barbour for instance believe that their very Christian understanding of religion and how they relate this to science is compatible with all 'religions'. Though this is not perhaps exactly what Drapeau has in mind when he writes about the extent of subjectivity, the fact that they are under this impression shows at least some level of subjectivity.

possible an autonomous discourse, complete with the benefits and the authority of its practitioners--complete with the privilege of their socio-political claims--it does so in a non-criticizable, non-public, non-testable fashion, thereby ensuring that the standards or evidence and falsification that operate in much of the university have little bearing on the study of religion" (McCutcheon xi, 1997). The most surprising outcome here is the fact that many individuals that follow this method of discourse seem to be scientists (at least in the science/religion debate). Some of them, like Dawkins, even though they argue that science is the right and appropriate method of inquiry because tests are at the heart of this method, are still keen to make general, unprovable and untestable assumptions relating to science and religion, and expect (for reasons better known to themselves) that this is satisfactory. Why is that? Perhaps this is related to what McCutcheon and others have to say about the *sui generis* understanding of religion. That is to say that because religion has been viewed like this for a very long time, and it is an accepted understanding of 'religion' at an academic level, individuals believe that they can take liberties when relating science to religion, with 'no questions asked'. This is of course an unfortunate problem, and the position that we find ourselves in especially when looking at these categorisations in close detail, is that we become aware of the discrepancies that appear widely throughout the science/religion debate. Not only are they things that have already been mentioned but we start having to ask the question, what are they basing all of this categorisation on? Nothing more than a manufactured and often inaccurate understanding of the phenomena they are dealing with. Therefore it is important that we tackle these extensive problems by coming up with a better and more fruitful way of approaching the relationship between science and religion.

Out of the Frying-Pan into the Fire

All of the problems that we have looked at are unfortunate ones; from the superfluous points that they focus on (like thoughts rather than facts) to the primary focus on Western belief without any real consideration for other cultures. This of course ranges to lumping all others' beliefs under the same umbrella as Christianity, and believing that the way in which they relate science and religion extends beyond the West, without any regard to the complex phenomena like science and religion that they are dealing with. Though it has been pointed out that this is unlikely to be done consciously, the fact that it is done and overlooked to such an extent is in itself a problem. It is however only through looking at these categorisations in close detail that we become aware of these discrepancies and others that appear widely throughout the science/religion debate.

However, when we think that we have covered most of the problems with this form of scholarship another problem rears its ugly head, so to speak. That is that we need to ask the

question: when the science/religion scholars that we have looked at are categorising these views and singling out those that are “more promising...to bring scientific and religious insights together” (Barbour 2000, 179), what are they basing these assumptions on? In other words, what definitions, out of the thousands out there, are they using to define these parameters? To any versed student in religious studies this is, in many ways, a redundant question, in the sense that one with a grounding in this area would know that there are a myriad of varying definitions of religion, and therefore to use one or two (or if we are being generous perhaps ten) to base these approaches on is in itself highly problematic and questionable. Not only does it demonstrate a lack of understanding of the subject matter in hand, and reduces religion to a couple of set definitions, but it demonstrates that these ideas are in many ways falsifiable because they are following a method that in itself is extremely flawed.

As is stated by King “not least because of constant attempts by scholars to delineate the precise nature ‘essence’ of the phenomenon under consideration” (King 1999, 8) (as is mentioned in a great amount of detail in an earlier section); *ergo* the fact that the individuals that we have looked at base a great deal of their work on one or two definitions of religion should raise alarm bells, and in many ways should indicate the inherent flaws that make up this form of scholarship. In many ways this ‘tell-tale sign’ should provide us with the evidence we need to suspect that something is wrong with this scholarship even before we begin to dissect the other major problems with it. Though we have already looked at ideas associated with the definition of religion and spent a great deal of time dealing with this in an earlier section it is important to raise it as a point here. Therefore, let us look at a few problematic definitions to show the underlying problems that await us in regards to the definition of religion (especially when dealing with the science/religion relationship).

A very good example of this misinterpretation or for that matter misunderstanding of the definition of religion can be found in Barbour. For instance in his Introduction to *Religion and Science* Barbour takes the approach to what a religion is, so to speak, he writes that:

A religious tradition is not just a set of intellectual beliefs or abstract ideas. It is a way of life for its members. Every religious community has its distinctive forms of individual experience, communal ritual and ethical concerns. Above all, religion aims at the transformation of personal life, particularly by liberation from self-centeredness through commitment to a more inclusive center of devotion. Yet each of these patterns of life and practice presuppose a structure of shared beliefs (Barbour 1998, xiii)

It is interesting to note how Barbour conceptualises religion; from him we get the understanding that it is ‘a way of life’ it is tied in with ‘individual experience’ it also has its own ‘rituals’ and ‘ethical concerns’. With that said, this definition is all well and good if you are sticking with a specific set of criteria as to what a religion is, if one can even say that; and may even pose as quite a legitimate thing to do if the researcher is ready to point out (unlike

Barbour) that there are a myriad of different definitions that one could potentially use instead, whilst also pointing out why, out of all of the other definitions ‘out there’, they chose this specific set of definitions as parameters. Unfortunately, as we can see here and elsewhere in the other works that we have looked at, there is no such indicator, nor do any of our experts seem to be aware of the fact that there are other definitions of religion. They are merely basing their assumptions on what Christianity is and banking on the fact that their audience will also share their very westernized Christian views on the matter.

However there are also other problems that arise, when individuals like Barbour use only *one* specific set of criteria to base an entire thesis on. For instance, returning back to an example I used earlier in this thesis this criteria can also, in many ways, relate to a number of social activities. One such example is the sport (Martial Arts) of Kendo. As was mentioned in an earlier chapter when you enter the dojo before training one must follow a set ‘ritual’; this includes bowing to *shomen* at the start of class then he sits down in *seiza* (which is a traditional Japanese sitting positions) and enters *mokusō* (a form of meditation one performs before training in order to clear the mind), and the ritual repeats itself at the close of the practice. Furthermore, a great deal of this ‘etiquette’ and ‘ritual’ is based on a modern understanding and representation of the Bushido⁸ philosophy a ‘way of life’, so to speak. So what we have represented here in a non-‘religious’ activity (if we can even call it that) are all of the elements that Barbour associates with religion; ‘ritual’, ‘individual experience’, ‘a way of life’, and not to mention if individuals take the Bushido philosophy to heart and accept it in their training, then also ‘the liberation from self-centeredness through a commitment to a more inclusive center of devotion’ (Ibid), in this case the Bushido philosophy and the Martial Art. In certain respects, Barbour is correct in his assumption that science does not follow much of the criteria mentioned above; however, I would argue neither does ‘religion’, or in this case of Barbour’s argument ‘Christianity’, fit these criteria exclusively, as is clearly demonstrated by the example above.

Therefore, how can one base an entire thesis and method of approach on criteria that are not exclusive to ‘religion’? They cannot. That is not to say that these are the only definitions that Barbour uses in his works, but suffice it to say, as has been demonstrated early, the majority of these assumptions are based on the western understanding of what a religion ought to be not the complex phenomenon that it actually is. These assumptions are then taken by Barbour as a means to see how religion can fit into a scientific world that is not concerned with such

⁸ According to Inoza Nitobe Bushido he roughly rendered Bushido to mean Chivalry...what he described as “they ways which fighting nobles should observe in their daily life as well as in their vocation; in a world the “Precepts of Knighthood”. He stated that it comprises of a number of different beliefs systems such as Zen Buddhism which encourages contemplation. Through Shintoism it’s gained its “loyalty to sovereign, such reverence for ancestral memory, and such filial piety as are not taught by any other creed...impairing passivity to the otherwise arrogant character of the samurai, and patriotism a and loyalty. He also adds that “As to strictly ethical doctrine, the

things or as he suggests “...the place of religion in an age of science...” (Ibid, xv). Therefore with the example thus provided, how is this any less outlandish than stating that I am setting out to write a thesis on “...the place of Kendo in an age of science”? After all Kendo fits all the criteria of Barbour’s ‘religion’.

As we can see in the Barbour example above, his idea of religious traditions is based not only on moral beliefs but that religion, especially Christianity, is all about “a total way of life, and it encouraged personal transformation and reorientation” (Ibid xiv). This is a very popular understanding of religion that appears in many books associated with science/religion; but it must be noted that this is once again only one set example of a definition of religion, so to speak. As we have seen, the concepts and ideas behind the phenomenon that is ‘religion’ is a ‘virtual mind field’ based on much supposition, rather than hard core evidence. For instance, we have seen many illustrations of this in the previous examples, but for a further idea as to how many of these assumptions are based on a very functionalist understanding of religion (as the bequeather of all moral values and teachings) we can take another look at Lynch. Lynch provides us with this description of some functionalist definitions of religion:

...religion provides people with an experience of community and binds people into a social order of shared beliefs and values that provides a structure for their ever day lives...religion provides

...teachings of Confucius were the most prolific source of Bushido. His enunciation of the five moral relationship...and worldly wise character of his politico-ethical precepts was particularly well suited to the samurai” (<http://www.gutenberg.org/files/12096/12096-h/12096-h.htm#BUSHIDO> accessed by author October 30th 2013)

...people with a set of resources (e.g. myths, rituals, symbols, beliefs, values, narratives)... religion provides a medium through which people are able to experience "God"...(Lynch 2005, 28).

We can see at least three, if not more, of these criteria illustrated in the Barbour examples above. However with that said as has been covered in chapter one, these are only one set of examples that fit this functionalist criteria. It is however not only Barbour that ‘falls foul’ of such assumptions. Let us turn once again to Polkinghorne who writes that:

...religious belief is different from scientific belief...therefore it has consequences not only for what we understand but also for how we behave. It involves practice and obedience as well as understanding. In that sense, religious belief is more like moral belief than scientific belief” (Polkinghorne 1995, 2).

One can see where he is coming from, and that is if one follows set criteria as to what the function of religion is then science will not (in this instance) provide one with such values and teachings. However, as in the Kendo example above moral teachings are not only found in

‘religion’ but in other activities as well. However this does present us with another conundrum, so to speak; and that is the assumed connection between ‘morality’ and ‘religion’ (as is part of the Lynch explanation on the previous page). This very functionalist assumption that morality=religion seems to be rife in the science/religion debate especially when finding ways to demonstrate that science and religion do not relate. Interestingly enough (although not surprisingly) this relationship takes on another life in the words of Dawkins. As is expected, Dawkins takes a slightly different approach on morality in an age of ‘atheism’. In promoting his new book *An Appetite for Wonder* he suggests that

The very idea that we get a moral compass from religion is horrible. Not only should we not get our moral compass from religion, as a matter of fact we don't. We shouldn't, because if you actually look at the bible or the Koran, and get your moral compass from there, it's horrible – stoning people to death, stoning people for breaking the Sabbath.

Now of course we don't do that anymore, but the reason we don't do it is that we pick out those verses of the bible that we like, and reject those verses we don't like. What criteria do we use to pick out the good ones and reject the bad ones? Non-biblical criteria, non-religious criteria. The same criteria as guide any modern person in their moral compass that has nothing to do with religion.

http://www.richarddawkins.net/news_articles/2013/9/28/dawkinshttp://www.richarddawkins.net/news_articles/2013/9/28/dawkins-religion-no-moral-compassreligion-no-moral-compass accessed by author on 4th of October 2013).

Though his use of the word ‘horrible’ to denote the connection between religion and a ‘moral compass’ is a bit overly dramatic, one can in many ways see where he is coming from as well. As he seems to be retaliating against those like Barbour, Polkinghorne and others who believe that religion is the direct reason for the creation of a ‘moral compass’; when this is by no means the case. Morality is a very complex phenomenon that is difficult to pinpoint to any set progenitor, so to speak. That is not to say that in the west Christianity has not had an impact on our ‘moral compass’, but I would argue that religion does not equal morality. In other words like many of the concepts we have been looking at in this thesis, the concept of morality is also a very complex phenomenon that is coloured by many other factors like, biology, society and psychological makeup, to name only a few; therefore all of these things play a significant role in patterning our morality. There is a great deal of research done on this subject and its correlation to other factors. This is being done in a number of fields, ranging from philosophy to psychology. Patricia Churchland gives us an idea as to how many different scientific disciplines are taking up the mantel so to speak:

The phenomenon of moral values, hitherto so puzzling is not less so. Not entirely clear, just less puzzling. By drawing on converging new data from neuroscience, evolutionary biology, experimental psychology, and genetics, and given a philosophical framework consilient with those data, we can now meaningfully approach the question of where values come from (Churchland 2011, 3).

To support this, Harris gives us an example of what possible factors could play a role in the formation of moral obligation:

I will argue, however that the question about values—about meaning morality, and life’s purpose—are really questions about the well-being of conscious creatures. Values, therefore translate into facts that can be scientifically understood: regarding positive and negative social emotions, retributive impulses, the effects of specific laws and social institutions on human relationships, the neurophysiology of happiness and suffering... (Harris 2010, 2).

Equally it is as problematic to suggest that religion has no impact on morality or in Dawkins’ case thinking that “the very idea...is horrible”, as it is to suggest that morality is only found in religion and therefore can be used to show a huge disparity between science and religion. Furthermore, in regards to morality and science I would argue that there are a number of scientists that feel that through science they are in many ways doing God’s work. For instance Albert Einstein states that “God can be conceived through the ‘rationality or intelligibility’ of the world which lies behind all scientific work of higher order” (Jammer 75, 1999). This is further proven by the fact that it is a recurring, and often popular theme, in a number of the books within this field of study that we have looked at, especially if they happen to be written by theologians-*cum*-scientists (which many of them are). With that said, there must also be scientists in many fields who stick to a strict moral code of practice and who will not deviate from these views. Even if this was not the case and all scientists were immoral (which they are not), why must morality equal ‘religion’? It is absurd to suggest that one cannot be moral without being religious. For instance, a vegan who has very strict morals as to why he/she will not eat meat can still be an atheist.

What the evidence above suggests is that it is false and also problematic to assume that religion follows only specific set definitions, especially if these definitions are based on complex cultural phenomenon themselves (which they most often are). Therefore, to suggest that science is different from religion because of the claim that religion is about a way of life and is something that teaches us morality, when science is not, is a false and illogical premise and therefore should not purely be used as a means to differentiate between science and religion with the hope of then integrating the two. This is a counter-productive/counterintuitive and also a highly unnecessary process.

In light of the evidence we have looked at thus far I would argue that these methods are the wrong approach, for a variety of different reasons. For one, they are based on age old and incorrect assumptions as to what a ‘religion’ actually is. They disregard the fact that they are basing a great deal of their opinions on rather western ideals, and make the mistake of not being fully aware or *compos* of other non-western culture and beliefs; but are intent on subjecting these beliefs to primarily Christian perspectives. On top of this, and in spite of the

fact that many of the individuals that we have looked at claim that they are trying to find a plausible means of connecting and integrating science and religion, we have discovered that this is by no means the case because most of the criteria they are using to formulate their assumptions are based on misleading notions. Nor are these associations done very well; as many of these scholars tend to ignore the complexities of the history of science and religion, and are intent on seeing these two things as static and definite concepts, rather than dynamic and fluid.

I would suggest that if we are intent on finding more out about the science/religion debate it is important to look at different approaches, those that primarily add something to our understanding of how the two are related, rather than those based on idealistic notions as to how this relationship appears to be. However what the majority of them have in common (if they aren't ruminations, which they often are) is to find a way to a) demonstrate the compatibility between science and religion by illustrating things about them that are similar (i.e. two different ways of understanding 'God's' universe); b) to illustrate the best views and approaches to take when looking at the relationship between science and religion; by providing us with others' views on the matter; c) proposing a connection between the two that although appears to be incredibly seductive is most often than not disguising a clever form of rhetoric, most of which, it must be added, even though demonstrated as being of great interest to the academic community are not of any great academic significance or value; at least not in the way that scholars would like them to be, or for that matter in the way that they are being presented. That is to say that what they are NOT doing is providing us with a better understanding of the complexities associated with this form of relationship, or providing us with a decent method for dealing with such complex questions.

However, that is not to say that all of the literature out there, related to this debate, is so intrinsically flawed. We have already familiarised ourselves with the work of Harrison (2006, 1990) and Brooke (1991) who look at the complex history between science and religion, and we have discovered through their work that there is a great deal more to this relationship than others' views on the matter (much of which has been covered); the key being that they are very meticulous in pointing out that there is more to their relationship than we make it out to be in the 21st century (as we have seen). They do this by drawing on many cases from history and demonstrating how not to read anachronistically into the past when it comes to science and religion, and provide us with better ways of dealing with these problems. For instance, Brooke points out that we should think of the "high degree of artificiality in abstracting the science and religion in earlier centuries"(Brooke 1991, 321); whereas Harrison points out that because of this clouded past there is "need for serious revision of common approaches to this issue" (Harrison 2006, 81). Despite the different ways in which they express their opinions on the

matter, they both seem to suggest and illustrate the many problems associated with our misunderstanding of the complexity of the issue, and we can see many of these problems reflected in the scholars who are key players in the science/religion debate (as demonstrated above).

Putting Harrison and Brooke aside for a moment, there is also other literature out there that deals a bit more adequately with the science/religion relationship; though it is few and far between. Perhaps one of the reasons for this is due to the fact that they are not as mainstream and popular in academic circles as the others we have looked at. Two such works are Margaret Wertheim's *Pythagoras's Trousers* as well as *The Edge of Reason* edited by Alex Bentley. These works are crucial in providing us with other more practical means of successfully understanding the science/religion relationship. With that said, after we have looked at these pieces I will conclude with my own thoughts on another approach that could perhaps also be useful in helping one to come to terms with this relationship; especially if we are to think of these two things as complex cultural phenomena as is presented by King and the many other scholars we have looked at.

What makes *The Edge of Reason* a more efficient text for approaching the problems with this relationship is the many different angles of approach it takes when looking at the science/religion relationship. It presents us with the work of many experts from a number of different academic fields, from anthropology, to sociology, to neurobiology. It includes the work of individuals such as: Alex Bentley, John Hedley Brooke, Lewis Wolpert, David Sloan Wilson, and Andrew Newberg to name a few. Furthermore, it is not wholly concerned with opinions on the matter of science and religion; although there are a few essays that do take this approach most notably Wilson's "Why Richard Dawkins is wrong about religion", and Kawanami's "Buddhism: Is there better balance in the East?". Nor is it interested in finding a way to relate science and religion at least not in the conventional way that our 'Barbours,' 'Wards', and 'Polkinghornes' seem to present. The overall piece is more interested in familiarising the reader with different methods that are being carried out in different fields of study to understand the complex relationship between science and religion. Some of these methods include using neuropsychology to understand "why we are good" (Slack 2008) to questions asking "is religion inevitable" through using archaeology (Mithen 2008). Many of these approaches are presenting the reader with more scientific methodologies for dealing with the question of religion in society, therefore demonstrating a more indirect correlation between science and religion. What it is not, is the same old apologetic approaches that we see elsewhere in this field of study. It must be noted that texts such as *The Cambridge Companion to Science and Religion* and also *The Oxford Handbook of Religion and Science* (2008) do a passable job at demonstrating other approaches that are taken in this field of study, and in

many ways *The Oxford Handbook* goes a step further by demonstrating other contributions to science and religion from other fields of study like ecology and psychology as illustrated in Susan Power Bratton's "Ecology and Religion" and Raymond F. Paloutzian's "Psychology, The Human Science, and Religion". As many of the essays in it are mainly concerned with: a) either complementary approaches to this subject area that are focused on a general misconception of what a religion is; b) reconciling science and religion; c) or as seems to be a popular theme in many of these texts, illustrating similarities between scientific findings and religious belief, we are in many ways left with the same old story but slightly hidden behind a newer and glossier finish.

Another interesting take on the science/religion relationship is Wertheim's *Pythagoras's Trousers*. For the most part what Wertheim's work seems to cover, unlike many of the works we have looked at thus far, is this idea that the relationship between science and religion is forever evolving, and that it is not as simple as suggesting that someone's interpretative and often debatable ideas about what 'makes up' or should 'make up' this relationship is evidence enough to make us think differently about it. Her aim is as follows: to "trace the rise of physics in Western culture as a religiously inspired enterprise" (Wertheim 1997, 7) something she does quite effectively and successfully in the pages of her book. She does this by focusing on the history of physics and Christianity and demonstrates a very complex but also linear relationship that the two seem to have enjoyed through the ages; whilst drawing out the strange influences that science and religion may have had on one another. She does this by locating specific events and people in history who have influenced both physics and Christianity in the West and focuses on the history of these events. She does not suppose that a specific (static) relationship existed between the two (one that we have seen to be often portrayed...at least until the fallacy of War between the two came to pass) but presents clear examples and evidence of a fluid and evolutionary relationship.

Furthermore, Wertheim firmly believes that both science and religion were two activities that in many ways have had a very similar role to play in helping humanity understand where it is locating in a vast cosmic scheme. In many respects what she is proposing is that the two have evolved in tandem, doing virtually the same activity but going about it in slightly different ways she writes that:

Both modern science and Christianity are, in essence, different attempts to locate humanity in a wider cosmic scheme. Where they differ is in what they believe that scheme to constitute. In medieval Christianity the cosmic scheme was primarily a spiritual setting; in modern physics it has been purely physical. (Wertheim 1997, 6).

But as historians, philosophers, and sociologists of science have discovered in the last few decades, science--like all other human activities--is shaped by social and cultural forces. The evolution of physics is neither inevitable nor inexorable, but depends upon culturally contingent factors and human choice. (Ibid, 8)

Another element that she believes that they share and one that may not be entirely suspected is the lack of women in science (her focus primarily is physics) which she suggests parallels the absence of female priests in Catholicism, she writes that “I suggest however, that this priestly conception of the physicist continues to serve as a power cultural obstacle to women” (Ibid, 12). Though her observation is an interesting one what is of most interesting here is the parallel that she draws between priests and physicists, as it in many ways illustrates at least one connection that individuals in the 21st century may have of the science/religion relationship. She demonstrates this very well as she draws on an example of Einstein. She writes:

In recent years Einstein himself had come to be seen as the embodiment of the scientist as high priest. His cosmological theory, his eminently quotable remarks about God, and his enigmatic statements about the process of science itself have been woven together to create a public persona of the physicist as religious mystic--an image he was the first to encourage. (Ibid, 186).

Though the above in many ways is still focused on science and its relation to Christianity, which in many ways is illustrated through the parallel Wertheim draws between physicists and the priesthood (invoking a rather Catholic framework), she is in many ways doing something slightly different than our theologian-*cum*-scientists. Instead of relating science and religion through ephemeral concepts and definitions she is taking a direct, not to mention physical, example and showing a plausible correlation between the two (the priest and the physicist). This in many ways is a more valid comparison because it does not rely on ephemerals; that is to say that we know there are Catholic priests and there are physicists, we can see these things, we can touch them (to some extent) and we know that they exist and we are aware of the roles that they play. The only real subjectivity at play here is whether or not both of these individuals or others see them as performing similar roles; and if we are curious we can investigate, because we are dealing with measurable variables.

Furthermore, what is quite good about this work is her overall focus and approach. The author, unlike many of the ones we have looked at thus far, is not in denial about where she is going with her work. In other words, she informs us that she is looking at the complex historical relationship between ‘religion’ and physics, and how it has evolved over time. She is also quite open to admit that the ‘religion’ that she focuses on is Christianity, rather than holding on to what seems to be the generalised consensus held by other ‘experts’ in this field; this idea that the relationship between science and religion somehow seems to transcend cultures and other religions. What we have learned through the work of individuals like Harrison (1990, 2006) and Brooke (1991), not to mention Wertheim (1997) who demonstrates this quite successfully,

is that this relationship is very uniquely western, and therefore belongs to, and in, a western arena. In many ways this is what our experts are supporting when they unintentionally ‘brush off’ other religions as something they are not qualified to comment on. That is to say that perhaps one of the reasons why they cannot find a decent correlation between science and non-western ‘religions’ is not because they are ‘unqualified’ or that they do not want to (even though this may be the case) but because this science/religion relationship (as has been pointed out in an earlier section) is primarily a western construct.

Chapter Three: Fractal Dimensions

The Virtual Parallel: A case study of transhumanism

We have familiarised ourselves with a number of approaches taken in order to better understand the science/religion relationship. Though we have found many of them to be quite fallible and in many ways unaccommodating in helping us to determine the complexities of this relationship, we have found a few that are more suitable for this task. For instance, Margaret Wertheim provides us with a very in depth and intensive historiographical account of the evolution of physics, and demonstrates its rather fluid history. She writes that, “...the point of this book is to trace the history of western culture’s attempts to describe the world in mathematical terms---a goal that, since the seventeenth century has been the hallmark of the science known as “physics”” (Wertheim 1995, xvii). Wertheim leaves us in very little doubt of the complexities of its history, and she does so in spite of the fact that she is looking at this account from a very different and somewhat popular perspective. That is that she focusses mainly on female scientists and their contributions to the field of physics (Wertheim, 1995).

If anything has been learned from this assessment it is that many experts within this field, apart from individuals like Wertheim and a handful of others like King, Asad, Dubuisson, and Fitzgerald (who we have looked at quite extensively in this thesis), do not represent the complex relationship between science and religion adequately enough. I am referring to individuals like Barbour, Polkinghorne, Dawkins, Peacocke and Crick who regardless of how prominent they are in their fields of expertise, seem to ‘miss the mark’ on the complexities associated with science/religion phenomena (which are covered in chapters one and two of this thesis). Nonetheless, their rather inadequate and somewhat antiquated representations of these phenomena are in many ways beneficial to our own understanding of science and religion as they provide us with examples of approaches that one should avoid when dealing with the cultural complexities associated with said phenomena. One such approach that seems to be wrongfully suggested, time and again, is that world religions are represented as similar

to Christianity, as the work of Polkinghorne has shown. *Ergo*, when the compatibility of the phenomena is being applied it is so only because of the adoption of a contrived and distorted Western bias.

What is however learned from these approaches is that there is a great deal more involved in properly understanding science and religion than merely the opinions and hearsay of these so called ‘experts’. Furthermore, and perhaps more importantly, what they illustrate to us is that we cannot define religion adequately enough to say in one way or another how, or how it does not, compare to science; or for that matter what definitions or approaches to ‘religion’ are better suited when making this comparison. The reason for this is because of its rather ephemeral nature. That said, we have become very much aware of the fact that they are both complex cultural phenomena that have a vast, multifaceted, and often linear history; a history that primarily belongs to the west. So to think that we understand this relationship completely is also somewhat misguided, and something that we, as researchers, should do our best to protect against.

With that said, it must be noted that the more helpful methods that we have looked at, namely, the rather historiographical and sociological accounts of science and religion as presented by Wertheim above, and others in previous chapters, are not the only ways in which we can understand this relationship. I propose that the relationship between science/religion can be better understood if we look at some of the ripples that these phenomena have left in their wake in the late 20th century, especially in more pop-cultural circles. For instance, we see these two phenomena represented in movements like Evolutionary Enlightenment⁹, and in TV, film, and videogames. This is not only representative of how they appeal to a more popular audience, but provides us with an insight into how these phenomena are represented in the 21st century, and how they have been integrated into our Western cultural activities. For instance, the concept of ‘religion’ in videogames is covered quite expansively in Rachel Wagner’s *Godwired* (Wagner, 2012); and a further example of the popularity of these concepts and their movement into the mainstream can be seen in the debate between TV personality Bill Nye and creationist Ken Ham which took place in early February 2014, a dialogue that argued the validity of Creationism as a model for the origin of the universe (<https://www.youtube.com/watch?v=z6kgvhG3AkI> accessed by author February 2014 21:14).

⁹ According to one source, Evolutionary Enlightenment “presents an authentic spiritual innovation, a comprehensive philosophy, path, and practice forged through more than two decades of transformative spiritual work... nothing less than ‘the fourteen-billion-year epic of our cosmic evolution—a vast perspective that enhances and enlarges to almost infinite proportions our sense of the significance of what it means to be human’”(<http://andrewcohen.org/about/EE> accessed by author October 31st 3:19 AM)

These examples provide us with an understanding of how religion is being addressed in a world dominated by technology and science, these are perhaps not the best examples for illustrating how our misunderstanding and misrepresentation of the history of these phenomena affected our view of science/religion in the 21st century. For that we will concentrate on a relatively modern ‘scientific movement’ known as transhumanism, which, as will be illustrated below, encompasses the many problems associated with the misinterpretation of religion and science as a result of a rather anachronistic and incorrect interpretation of ‘enlightenment thought’.

Transhumanism, as a case-study, should provide us with a better understanding of how these two phenomena are understood in the 21st century, and may give us an idea of one evolutionary trajectory they may have taken; as relying purely on the hearsay and opinions of supposed experts in the field has proven to be somewhat unsatisfactory in getting to the root of the problems associated with these phenomena. After all, Wilfred Cantwell Smith stated that “The world is in flux, and we know it. Like other aspects of human life, the religious aspect too is seen...evolving, in process” (Smith 3, 1962). If this is indeed the case, which this thesis has been addressing, then would it not be safe to assume that the relationship between science and religion is also in flux or more accurately evolving? If Smith is indeed correct in his assessment then evidence of the evolution of this fluid dynamic should be apparent in the 21st century. Could this evolution be found in the cultural/intellectual movement known as transhumanism? So why transhumanism? What is the connection?

There are a number of reasons for choosing this movement as opposed to others. For one, it seems to encompass many of the problems associated with the wrongful categorisation and definition of religion. As we will see, much of the premise for rejecting religion and its connection to transhumanism is based on an incorrect post-Enlightenment construction of religion (King 1999, 11). Two, it provides us with an interesting representation of how our wrongful interpretations of the science/religion coupling can lead to negative reactions to religion in the 21st century especially in relation to science and technology. Thirdly, even though transhumanism is strongly advocated as a “scientific movement” by many transhumanists (as we will see) it has been interpreted as a religion by Richard Geraci, who set out to prove this in his 2010 *Apocalyptic AI*. The fact that a movement such as this can be adamantly championed as a scientific movement that is completely divorced from religion, and in the ‘same breath’ theorised as a religion, demonstrates serious glitches in our understanding of religion in the 21st century.

Though the term itself has, in the words of Max More, “been coined independently multiple times although not necessarily with precisely the same meaning” (More 2013, 8). More believes that its origins can be found in Dante’s *Divine Comedy* (1312) where the term *transhumanare* is used to mean ‘to pass beyond the human’. According to More, the difference

between its use now and in the *Divine Comedy* was that Dante used it as a term of a spiritual and religious significance rather than the loosely defined philosophical meaning that it carries with it today. In the words of Nick Bostrom, this loose ‘philosophical’ meaning is basically the belief that “...current human nature is improvable through the use of applied science and other rational methods” (Bostrom 2011, 55). What we gather from More is that the term transhumanism has had a vast, varying, and evolving history. This becomes even more evident in the brief summary that he provides us of its history:

T.S. Eliot’s use of “transhumanized” in his 1935 *The Cocktail Party* is about “illumination” rather than technologically mediated transformation. A closer fit is Julian Huxley’s brief chapter “transhumanism” in his 1957 book, *New Bottles For New Wine*. He used it to mean “main remaining main, but transcending himself, by realizing new possibilities of and for his human nature”. He did not however develop this evolutionary view into a philosophical position...(More 2013, 8)

With that said, we can get an even better rundown of its colourful history through the works of Tirosh-Samuelsan who writes that:

...it was further developed in the 1930s especially among the so-called Red Scientists of Cambridge University, who deeply believed in the capacity of science and technology to improve the human condition [H.G. Wells a close friend of Julian Huxley was among one of these visionaries]...in the 1960s, new optimistic futuristic scenarios about humanity were articulated by science fiction writers such as Arthur C Clarke, Isaac Asimov ...who speculated about the new, transhuman future...Fereidoun M Efandiary [later renaming himself FM2030]...began to identify transhumans as persons who behave in a manner conducive to a posthuman future...other famous scientific visionaries and technoutopians such as Ray Kurzweil, Eric K Drexler, Frank P Tipler, and Hans Moravec...offered an apocalyptic view...referred to as “the singularity” will bring an end to human existence, ushering instead an autonomous, artificially intelligent species that will be in competition with humanity...(Tirosh-Samuelsan 2011, 21-23)

More writes that even though FM-2030 developed a set of transhumanist ideas in 1972 that played with the idea that humans would eventually transcend to a post human state, the movement known today as transhumanism did not come into existence until the 1990s. More credits himself with labelling this new philosophy in 1990 with his essay titled “Transhumanism: Towards a Futurist Philosophy” (More 2013, 11 and 9). He writes that “the term was introduced explicitly to label a deliberately transhumanist philosophy” (Ibid, 9). Though this may sound as though More is ‘tooting his own horn’, so to speak, this is backed up by Tirosh-Samuelsan who states that “in the 1980s, philosopher Max More formalized a transhumanist doctrine, advocating the ‘principle of extropy’ for continuously improving the human condition” (Tirosh-Samuelsan 2011, 23).

Now being somewhat more familiar with the history of the transhumanist ‘movement’ one gains a clearer idea as to what it actually is. Though More uses both ‘philosophy’ and ‘cultural activity’ in his definition of transhumanism (More 2013, 4), referring to it as a ‘philosophy’ is problematic in itself. The reason for this is that the category ‘philosophy’ is highly

interpretative, rather complex, and ambiguous with multiple definitions and meanings dependent on who or what ideas one has of it. In many ways it is similar to defining ‘religion’, which we have previously demonstrated as also highly challenging. Therefore, for the purpose of our argument, we will refer to it as a ‘cultural activity’, as it is easier to understand transhumanism in this way, especially as it appears to be built on many science/religion foundations. After all, More suggests that this form of understanding would not have been made possible without the birth of the scientific method. He writes that “the realization of transhumanist goals—or perhaps even the full articulation of the philosophy—would not be possible before the development and use of the scientific method” (More 2013, 9).

His reasoning for this, though perhaps slightly misplaced (as we know that the history of science is much more complex than he makes it out to be) is that he believes that because the scientific method gave rise to empirical study and what appears to be a more advanced or perhaps more accurately, ‘evolved state of mind’, (although it must be noted that he does not state this himself) that this form of thinking about the future and technology fuelled thoughts on proto- transhumanism. He uses an excerpt from Marquis de Condorcet’s *Sketch for a Historical Picture of Progress of the Human Mind* (1795) to emphasise his point (More 2013, 10). With that said, it must be noted that this excerpt is somewhat interpretative and does not only mention ‘science’ but the ‘arts’ as being motivators of such thoughts; *ergo* as an example of early transhumanist thought it is a rather weak point. Furthermore, to refer to de Condorcet’s statement as ‘transhumanistic’, especially as it was written in the late 18th century, is quite anachronistic in itself (More 2013, 10). Though one can see where More is coming from it must be noted that his take on Enlightenment thought and its tacit connection to transhumanism is also highly interpretive. This is especially the case in light of the evidence presented earlier in this thesis that pointed to the problems associated with our rather anachronistic and misinformed understanding of the ‘Enlightenment’.

However, every movement must have its origins and transhumanism is no exception. That is to say that having a connection to Enlightenment thought, which to many is the start of progressive thoughts and ideas regardless of how erroneous, provides the movement with the credibility that it longs for in the eyes of the scientific community, or so transhumanists would like to believe. This need and desire for transhumanists to feel a part of a rich scientific tradition is supported by the fact that they try desperately to disassociate themselves (or so it seems) from what they deem as an illogical and archaic understanding of the universe, ‘religion’. Though this cannot be said for every transhumanist, as More himself states that “the content of some religious beliefs is easier to reconcile with transhumanism than the content of others” (More 2013, 8) mainly pointing out Mormon and Buddhist beliefs as two that are reconcilable; one gets the impression regardless of how deliberate it may or may not be, that

some transhumanists go out of their way to find the means to distance themselves from religion.

A plausible reason for this may be that a tie to science brings it more credibility and authority in the eyes of their judging peers; whereas having a connection to religion may have the opposite effect. Roughly speaking, associating transhumanism with religion may discredit their ideas as mere myth and science-fiction. To illustrate the conscious disassociation of religion from transhumanism, let us look at another example presented by Nick Bostrom:

Transhumanism is a loosely defined movement that has developed gradually over the past decades and can be viewed as an outgrowth of secular humanism and the Enlightenment. It holds that current human nature is improvable through the use of applied science and other rational methods, which may make it possible to increase human health span, extend our intellectual and physical capabilities, and give us increased control over our own mental states and moods. Technologies of concern include not only current ones, like genetic engineering and information technology, but also anticipated future developments such as fully immersive virtual reality, machine-phase nanotechnology, and artificial intelligence. (Bostrom 2011, 55)

Note Bostrom's emphasis on the fact that transhumanism is a rational method that grew out of the Enlightenment; and though he states that it holds to the belief that humans can improve their life and existence, this improvement is down to the 'applied sciences' and purely human activity. There is no mention of the help or guidance of a higher supernatural power. Instead, these methods of betterment are down to purely human ingenuity, brought about through the innovativeness and rationale of Enlightenment thought and humanist ideals. However, this is only one definition of transhumanism. What we find in others, like those presented by Max More (1990, 2011, 2013) and Russell Blackford (2011, 2013) is that the lines between transhumanism and religion become slightly less demarcated, and at times appear to be quite ambiguous. This is better explained More who writes that transhumanism:

...is a life philosophy, an intellectual and cultural movement, and an area of study. In referring to it as a life philosophy, the 1990 definition places transhumanism in the company of complex worldviews such as secular humanism and Confucianism that have practical implications for our lives without basing themselves on any supernatural or physically transcendent belief (More 2013, 4)

There are two points that must be addressed here. Though we get no indication from Bostrom (2011) that this is actually a 'philosophy of life' or for that matter something that is NOT a religion, as he basically defines it as a movement of thoughts and ideas; More gives us more of an indication of transhumanism's relationship to 'philosophy' and 'religion'. He does this by suggesting that transhumanism is not a 'religion' but that it is a 'philosophy'. Without arguing semantics endlessly, More's justification here is relatively flawed as one cannot define a 'philosophy' simply as 'a way of life'. To do otherwise is basically reducing a complex cultural phenomenon to something less meaningful and quite simplistic (though this should come as

no surprise to us as it happens with alarming regularity when defining religion). To elaborate, in using an example of Buddhism some may say that it is a ‘philosophy’ and a ‘religion’, others that it is a ‘religion’ or a ‘philosophy’, some that it is ‘a way of life, and other that it is neither one nor the other. There will also be those who suggest that this categorisation does not matter. This problem is also raised by Damien Keown who writes that:

Problems of the kind just mentioned confront us as soon as we try to define what Buddhism is. Is it a religion? A philosophy? A way of life? A code of ethics? It is not easy to classify Buddhism as any of these things, and it challenges us to rethink some of these categories... If beliefs in God in this sense is the essence of religion, then Buddhism cannot be a religion... Another [difficulty] is that Buddhism seems not to have much in common with other atheistic ideologies such as Marxism...Perhaps, then, the categories of ‘theistic’ and ‘atheistic’ are not really appropriate here. Some have suggested that a new category—that of the ‘non-theistic’ religion—is needed to encompass Buddhism. Another possibility is that the original definition is simply too narrow (Keown 1996, 3-4).

With this being the case, how can More and others so easily separate ‘philosophy’ from ‘religion’ without considering all of these aspects and more? One can argue that this is down to the misinterpretation as well as the categorisation of complex phenomena that cannot be so easily reduced and defined. A problem that Richard King believes arose from the separation of science and religion during the Enlightenment (King 1999, 11). We get a better idea as to how deeply rooted these problems are when we observe how easily More separates religion from transhumanism. Note that More suggests that transhumanism is not a religion but that it is a ‘life philosophy’ (More 2013, 4). When looking back at an earlier section of this thesis, we observed that ‘a life philosophy’ is one functional definition of religion. With that in mind, one gets the impression (at least in the example above) that he is basing his entire assumption on the logic that a religion HAS a supernatural entity; and as transhumanism DOES NOT possess such an entity, it is NOT a religion (an unfortunately common yet entirely erroneous assumption).

More is not the only transhumanist that seems to have difficulty with definition. This is especially the case when trying to disassociate religion from transhumanism. What we find is that some of these definitions verge on the unjustifiable, or perhaps more fairly, manufactured. For instance, let us turn to Blackford. Like More, Blackford, wrongfully sums up religion. He does this by presenting us with only ONE definition of it (out of hundreds) and relatively flimsy reasons as to why transhumanism is not a ‘religion’.

Transhumanism is not a religion or a secular ideology. Consider the idea of religion. With some reservations, Charles Taylor defines it in terms of belief in agency or power that transcends the operations of the natural world. Religion, then, relates to “the beyond”, to an otherworldly and in that sense transcendent, order of things...Transhumanist philosopher Max More identifies the core of religion as “faith and worship”, while other typical elements include “beliefs in supernatural forces, ceremony, a comprehensive view of life, and a moral theory or rule” ...By contrast with all this, transhumanism posits no “beyond”: there are not gods, or supernatural

powers or principles. Most typically, transhumanists embrace a naturalistic and purely secular worldview. In short, transhumanism is not a religion. (Blackford 2013, 421)

What can be gathered from above is not only do both More and Blackford share a relatively generalised as well as incorrect view (though popular) as to what defines a religion, basing their assumptions on many misconceptions, but they also seem to leap to these conclusions without truly understanding the complexities of the phenomena that they are dealing with. For instance, Blackford in relation to transhumanism and religion adopts More's (1990) and Taylor's (2007) claim that religion is about the 'beyond', the 'supernatural', 'ceremony', and the like; *ipso facto* if transhumanism does not adhere to the reductionist criteria presented above, it is not a religion. As we have seen early in this thesis, these definitions pertain to only one set of defining criteria of religion, out of many. This form of problematic reasoning and misunderstanding appears numerous throughout the material that we have looked at in this thesis. Furthermore, in this example of transhumanism we see remnants of the *sui generis* quandary that seems to have, in the well supported opinions of individuals like Fitzgerald (2000), Asad (1993), Dubuisson (2003), McCutcheon (1997), and King (1999), saturated academia and erroneously affected our understanding of religion. However instead of religion, it is transhumanism that takes up the mantle, and becomes *the* activity that is set apart and uniquely different from all others. Perhaps one reason for this, much like the *sui generis* classification of religion, is to justify its credibility, autonomy, and authority as a legitimate movement, in the eyes of transhumanists and their critics.

This inherent need to give authority and some form of credibility to transhumanism is done sometimes at the expense of decent scholarship. This is further demonstrated by Blackford who is under the impression that the function that transhumanism serves within society is to provide people with a worldview without being ideological. He writes that:

Nor is it a secular ideology: it has no body of codified beliefs and no agreed agenda for change. It is instead a broad intellectual movement—not so much a philosophy as a class or cluster of philosophical claims and cultural practices. It is lively with internal debates and hydra-headed claims—large enough and clear enough to provoke anxieties. (Blackford 2013, 421)

The problematic term here is 'ideology'. The reason for this is that like 'religion' and 'philosophy' it cannot be so easily defined. Moreover, very similar classification are used by Blackford to support his belief as to why transhumanism is not a 'religion' (Ibid). For example, he comments on how Taylor's definition of religion includes a 'comprehensive way of life' as well as 'a moral theory of rule' (Ibid). How are these qualities any different than a 'codified belief structure'? Are we not merely arguing semantics at this point? Though this may come

across as a rather arbitrary and pedantic dig, so to speak, it stresses a point. The point being, if it were truly the case that ‘codified beliefs’ and ‘no agreed agenda for change’ were the primary elements that made up an ideology, how can one use the very same criteria to define religion? After all, criteria such as this appears in not only functional definitions of religion but also substantive. This is especially relevant when we take the case of Christianity into account, which has very obvious codified beliefs and practices, and also some element of agreed agenda for change. For instance, it is not unusual to see a religious congregation raising money for the poor through organising community events, or putting money in a collection box on Sundays. Is this not an agreed activity with a specific agenda in mind? Though it can be argued that the point is perhaps being overly exaggerated here, and that Blackford’s meaning is being deliberately sabotaged and pulled out context by the author of this thesis, the fact that it can so easily be pulled out of context would suggest that having such an ephemeral and arbitrary understanding of these phenomena can be very problematic. Not only does it lead to obvious confusion, misinterpretation, and misunderstanding, but it further suggests that Blackford’s understanding of these complex phenomena is worryingly mediocre.

Even if this evidence is not convincing enough to support the problems associated with Blackford’s problematic rationale for setting transhumanism apart from ‘religion’ and ‘ideology’, the fact that he uses the example that transhumanism does not cater to a specific ‘agreed agenda for change’ to support his claim (that it is not an ideology) is also quite questionable. Yes, it can be argued that transhumanism appears to have no ‘universally agreed agenda for change’ and as a result it does not cater to any one ‘specific agenda’. This however does not give one the justification needed to completely dismiss it as having no ‘agenda’. That is to say that the entire movement, regardless as to what position you advocate as a transhumanist, is based primarily on (as we have seen) the idea of the betterment of humankind through technological advances. The fact that transhumanists are working towards similar objectives is supported by More who states that all transhumanists work towards the “realization of transhumanist goals” (More 2013, 9). The difference in opinion is merely in how this change will be implemented; what this change will entail; and what technology will be used to support this change.

To get an even better idea of the ‘goals’ presented by transhumanists we turn to Transhumanist Declaration as of 2012 which reads like the following:

1. Humanity stands to be profoundly affected by science and technology in the future. We envision the possibility of broadening human potential by overcoming aging, cognitive shortcomings, involuntary suffering, and our confinement to planet Earth.
2. We believe that humanity’s potential is still mostly unrealized. There are possible scenarios that lead to wonderful and exceedingly worthwhile enhance human conditions.
3. We recognize that humanity faces serious risks, especially from the misuse of new technologies. There are possible realistic scenarios that lead to the loss of most, or even all,

of what we hold valuable. Some of these scenarios are drastic, others are subtle. Although all progress is change, not all change is progress.

4. Research effort needs to be invested into understanding these prospects. We need to carefully deliberate how best to resume risks and expedite beneficial applications. We also need forums where people can constructively discuss what could be done and social order where responsible decisions can be implemented.

5. Reduction of risks of human extinction, and development of means for preservation of life and health, the alleviation of grave suffering and the improvement of human foresight and wisdom, be pursued as urgent priorities and generously funded.

6. Policy making ought to be guided by responsible and inclusive moral vision, taking seriously both opportunities and risks, respecting autonomy and individuals rights, and showing solidarity with and concern for the interests and dignity of all people around the globe. We must also consider our moral responsibilities towards generations that will exist in the future.

7. We advocate the well-being of all sentience, including humans, non-human animals, and any future artificial intellects, modified life forms, or other intelligence to which technological and scientific advance may give rise.

8. We favour morphological freedom—the right to modify and enhance one’s body, cognition and emotions. This freedom includes the right to use or not to use techniques and technologies to extend life, preserve the self through cryonics, uploading, and other means, and to choose further modifications and enhancements. (More 2013, 54-55).

Though this is a rather long winded example, that to many may sound as though it comes out of a science fiction novel or film, it is clear from this example that transhumanists follow a set ‘agenda’ for change, or for that matter a number of set agendas. In fact, this declaration reads more like a mission statement or manifesto rather than merely an ‘agenda’ (although one may question if there is actually a difference). However, regardless of the fact that they may have slightly different methods for reaching their goal, it is obvious that these individuals hold to specific beliefs and principles, illustrating quite clearly that Blackford’s assessment is incorrect and inaccurate.

His claims are made even more contrary when he suggests that transhumanism, though not an ideology or a philosophy, is a “class or cluster of philosophical claims and cultural practices” (Blackford 2013, 421). Though this may seem somewhat reasonable at first, what is being argued here is how does this in any way differ from what a ‘religion’, ‘philosophy’, or ‘ideology’ is? Furthermore, it seems somewhat illogical that Blackford would use such an example to define what transhumanism is after stating that it is not a ‘philosophy’ or a ‘religion’. It is also somewhat interesting to note that Blackford’s comment that transhumanism is not an ‘ideology’ utterly contradicts More’s point where he relates transhumanism to Confucianism. More writes “...the 1990 definition places transhumanism in the company of complex worldviews such as secular humanism and Confucianism” (More 2013, 4). It must be further mentioned that many people would argue that Confucianism, if not a ‘religion’, ‘philosophy’, or both, shares some qualities with an ideological belief. This is supported by John Berthrong who writes:

Confucianism has been and still is a vast interconnected system...although known in the West mostly as a philosophic movement, Confucianism is better understood as a compelling assemblage of interlocking forms of life...that encompasses all the possible domains of human concern. Confucianism at times and places, was a primordial religious sensibility and praxis; a philosophic exploration of the cosmos; and ethical system; and educational program; a complex family and community ritual; dedication to government service; a philosophy of history; the debates of economic reformers; the intellectual background for poets and painters; and much more (Berthrong 2000, 1)

In light of the above, not only are Blackford's justifications for separating all of these obviously related phenomena meagre, but his attempt to separate both religion and ideological belief is a weak attempt to make a point that in itself is somewhat redundant and poor. That point being, to absurdly and incorrectly stress that transhumanism is *most definitely not* a 'religion' or an 'ideology'. His motivations are made even more questionable by the fact that he insists, despite his argument, that transhumanism is a 'worldview'. One gets the feeling that a great deal of these so called evidential parameters are clever methods for demonstrating that there is, 'in no way', a connection between transhumanism and religion, even though there is evidence that strongly points to the contrary. More further comments on the relationship between religion and transhumanism, though he does so reluctantly. He writes that "I explained how transhumanism (like humanism) can act as a philosophy of life that fulfils some of the same functions as a religion..."(More 2013,8).

With this type of rationale as the means of justifying his [Blackford's] point, what is to stop an individual from questioning what the differences between an 'ideology' and a 'worldview' are? Furthermore, we cannot ignore the fact that if transhumanism is a 'worldview' then this implies that it is a 'view', held by the world; giving one the impression that these transhumanist ideas are universally known and adhered to. This in many ways is akin to the West suggesting that Christianity is also a worldview. Though many in the West may hold this rather Eurocentric idea of Christianity, this is indeed not the case (as has been looked at previously). It must be noted that although transhumanist ideas seem to be popular in certain western and eastern circles, as we will demonstrate in the next section, it is problematic to assume that these views are held by all earth dwellers of the human persuasion. This is perhaps not exactly what Blackford has in mind when he suggests that transhumanism is a 'worldview'; nonetheless this assumption comes with rather heavy implications. Perhaps a safer and better explanation would have been to suggest that transhumanism is a *view of the world or for the world* held by a certain group of individuals, a more honest and realistic assertion.

Thinking of any of the complex cultural activities presented above in such reductionist and demarcated terms is highly problematic, because there is no panacean definition for such complex phenomena. This is evident by the fact that many of the definitions looked at above like: 'way of life', 'moral codes', 'beliefs and practices', cross over into many other cultural

spheres of influence. This is however not surprising given the rather misrepresented history of both science and religion (as demonstrated in previous chapters). By trying to delineate these realms of culture, so to speak, we are in many ways suggesting that one activity is more significant than another. In doing this, we are holding on to a very draconian belief and mentality, mainly an Enlightenment one, which in itself is problematic. King stresses his own concern over such matters and warns against viewing these cultural activities from such an antiquated perspective. He writes that:

Indeed, the modern category of 'religion' itself is a Western construction that owes a considerable debt to Enlightenment presuppositions. This term exists as an explanatory concept for classifying certain aspects of human cultural activity...However, the Enlightenment preoccupation with defining the 'essence' of phenomena such as 'religion'...serves precisely to exclude such phenomena from the realms of politics, law and science etc... a strategy similar to this can be found in the claim that the political movements and ideologies, such as Marxism, nationalism, etc, are actually modern forms of religion. However, I am not advocating reductionism in either direction. I am simply wanting to acknowledge the sense in which 'religious' and the 'political' are not separate realms in reality. The separation of the two is an Enlightenment assumption that I do not accept" (Ibid, 11).

Transhumanism and Religion: Defining the Parallel

Evidence of such problematic classifications can also be observed in how More and many other transhumanists are adamant at keeping their 'scientific movement' separate from religion. This is further evidenced by the humorous, yet rather telling, point made by Giulio Prisco who writes that "I prefer not to define transhumanism as a spiritual endeavour or a religion; first because it wouldn't be correct [although he does not tell us what is incorrect about it] and second because I don't want to lose all of my transhumanist friends" (Prisco 2013, 239). Though it seems to be suggested in jest, this comment leaves one with the understanding that such a belief is taboo in most transhumanist circles. This is supported by the rather debatable claim (if one is a transhumanist) made by the theologian Ted Peters (2011) that suggests that transhumanists are convinced that religion will present their movement with unfortunate and also inescapable roadblocks. In other words, he suggests transhumanists associate 'religion' with an archaic form of thought that they believe will hamper, hinder, and in certain respects undermine, their transhumanist promise for the future (Peters 2011, 148). Despite their supposed reservations, Peters goes as far as to demonstrate that transhumanists are wrong to believe this. He writes that "In the process I would like to correct one mistake made by transhumanist theorists. That this is the case" (Ibid). That being said, although Peters seems to make a relatively decent claim in many ways, his supporting evidence is rather weak; as he

insists on using the bible to support his argument. He does this by pointing out that the bible has no anti-transhumanist writing in it, and as an extension of this, Christianity is not anti-transhumanist. Not wanting to point out the number of obvious problems with his methodology, but using the bible as a legitimate source for the justification of his argument weakens his position quite considerably. This does not go unnoticed by Blackford who states that, “He does not support this claim with any empirical study—or even an impressionistic overview...rather he refers to passages from the Old and New Testament that might be said to presume the value of novelty” (Blackford 2013, 179).

According to Peters, not only do transhumanists see religion as a ‘roadblock’ but many seem to regard it as completely separate, and uncomplimentary, to transhumanism. He writes that “they presume that religion will attempt to place roadblocks in their way on the grounds that the religious mind is old fashioned out of date, Luddite, and dedicated to resisting change” (Peters 2010, 148). This is of course refuted by Blackford who suggests that Peters’ claim that ‘religions’ are supportive of transhumanism is quite erroneous. Blackford writes that “*The roadblock of religion*...an issue that seems dear to Peters’ heart...I believe that Peters underestimates the degree to which religion is likely to create such roadblocks” (Blackford 178 2010). This being the case, Blackford does not point out how religion has created, or will create, such ‘roadblocks’; nor does he seem to be moved by the fact that Peters himself, an advocate of transhumanism, is also a Theologian and a religious man. Despite the obvious support that transhumanism and transhumanists receives from Peters, Blackford is intent on proving his point by emphasising that Peters’ assessment is ‘disingenuous’ and that he is also quite ‘mistaken’ (Ibid). He presses his point quite firmly by stating that:

Christianity has traditionally displayed a linear rather than cyclical view of time and history, with time’s arrow pointing to the ultimate triumph of good over evil. But none of this entails, that all, or even most, Christian leaders and theologians would countenance the technological boosting of human capacities that transhumanists advocate. Changes of *those* kinds might well be regarded by many leaders and theologians as hubristic, or otherwise morally impermissible, and as fair...targets for political suppression. (Ibid 179)

Though both individual points are valid, as it is inevitable that some Christians will have issues with transhumanism as some transhumanists will have issues with Christianity (as we have demonstrated), these views are neither here nor there. That is to say, what we are left with here are only the opinions of two individuals that are obviously motivated by different things. In the case of Blackford this may be his ‘atheist background’ and Peter’s his ‘Lutheran’, or at least this appears to be what Blackford is suggesting by addressing the fact that they both have their biases (Ibid 178).

So what does the above tell us about the relationship between religion and transhumanism? Apart from the example presented by Peters above (which was not entirely convincing) the evidence for finding a positive correlation between ‘religion’ and ‘transhumanism’ seems to be somewhat lacking. However, this only applies if we are thinking of ‘religion’ in the traditional sense of the word. As this thesis has clearly illustrated, thinking about religion conventionally (although popular) is entirely the wrong approach. This is evidenced by the fact that the major problem with the work of our ‘wary-of-religion-transhumanist friends’ above (not to mention of theologian-*cum*-scientists in a number of earlier sections) is that the majority of them fail to think ‘outside the box’ when it comes to religion, and that they use problematic definitions and classifications for religion. Nevertheless, and despite this shortfall, it is interesting to note that a number of scholars have found relatively convincing ways of connecting transhumanism to our conventional understanding of religion.

One such scholar is Robert M. Geraci. Geraci not only views transhumanism as a relatively new cultural and scientific movement, but a religious one. It is interesting to note that Geraci does not appear in any of the more recent transhumanist texts used in this section, even though his *Apocalyptic AI* was published in 2010 a year or two before many of these transhumanist publications. Given his pro-religious approach to transhumanism, this is not surprising, especially if transhumanists are working endlessly to distance themselves from religion. Despite this, he is a rather innovative scholar who has successfully demonstrated in his *Apocalyptic AI* (2010) that transhumanism can be regarded as a religion of science without all of the ‘bells and whistles’ attached. He does this by honing in on the similarities between the Judeo-Christian apocalypse and a very popular belief in transhumanist circles known as the ‘singularity’. To the transhumanist, the ‘singularity’ is an ‘event horizon’, so to speak, that will inevitably lead to an apocalyptic event known as the *Mind Fire*. The ‘singularity’ is summed up quite well below:

...the concept of the singularity is not itself singular...[there are] a range of different models of technological singularity. A less complete map of this territory captures the three primarily models on which most people seem to agree. These are the Event Horizon, Accelerating Change, and Intelligent Explosion (More and Vita-More 2013, 362).

To summarise, each transhumanist supporter presents their own view of what technology will bring to the future and how quickly this will occur, but the majority believe that this ‘singularity’ will take place in the next 25 to 100 years. It will be sometime in the near future that technology will advance to the point that humans will either create super-intelligent beings or will become super-intelligent themselves. To some transhumanists, this will inevitably result in an ‘apocalyptic’ event known as the *Mind Fire*. Geraci explains it as a

system of belief proposed by Hans Moravec in 1989 and championed by Ray Kurzweil (1999, 2005):

Once we learn how to upload our minds into computers, we will be but a short step from our eventual salvation in the transcendent world of cyberspace. Robot bodies will give us wondrous powers but even these will pale before the limitless possibility of virtual reality. In the Age of Mind, physical reality will lose relevance as it is alchemically transmuted into cyberspace. The movement of robots throughout space will be a “physical affair.... But it will leave a subtler world, with less action and even more thought, in its ever-growing wake” ... this the Mind Fire,” which will be a “friendly” world...and will allow us to transform the cosmos, including our destiny—in the Mind Fire, we will have control over our evolutionary future ...(Geraci 2010, 34).

In layman terms, the *Mind Fire* is a figurative explosion of human consciousness that will see humans uploaded into a virtual *nirvana* where they can live an immortal, paradisiacal existence. One can think of this event as being similar to the first iteration of *The Matrix*, as explained to Neo by The Architect in *The Matrix Reloaded* (2003). Geraci uses the transhumanist hope for the future, and their vision of the *Mind Fire*, to illustrate how it can be perceived as a religion. His hypothesis is that the movement borrows its apocalyptic worldview from Judaism and Christianity and therefore fits the criteria of a religion. He even states that it is a “technological faith” that borrows many of its sacred worldviews from these two beliefs (Geraci 2010, 36). The worldviews that he draws upon are the following: “... a dualistic view of the world, which is...aggravated by a sense of alienation that can be resolved only through...the establishment of a radically transcendent new world that abolishes the dualism and requires...radically purified bodies for its inhabitants” (Ibid, 37). Though a rather reductionist account of Judaic and Christian beliefs, Geraci sees these borrowed views as substantial enough evidence to support his theory that transhumanism is a religion. In many respects Geraci perceives that certain aspects of transhumanism (in this case Apocalyptic AI) is a modern ‘twist’ on age old traditions and beliefs. To expand on this point we turn to Prisco who has this to say about Geraci’s work:

Geraci defines Apocalyptic AI as a modern cultural and religious trend originating in the popular science press...According to Geraci, Apocalyptic AI is a religion: a religion based on science, without deities and supernatural phenomena, but with the apocalyptic promises of religions. And he thinks that, while the Apocalyptic AI religion has a powerful but often hidden presence in our culture, the transhumanist community embraces it openly and explicitly. Transhumanism is first defined as “a new religious movement”, and throughout the book Geraci continues to see it as a modern religion. (Prisco 2013, 239)

Despite Prisco’s comment above, he makes it a point to share his personal views on Geraci’s assessment. He does this by emphasizing the point that although he believes that Geraci’s hypothesis is an interesting one, he does not entirely agree with it. That is to say that, as a transhumanist, he does not want to think of transhumanism as a ‘spiritual endeavour’ or a

‘religion’ (Ibid). His reason for this is simple: he does not see transhumanism as providing these functions (Ibid).

Prisco is not the only one that disagrees with Geraci’s assessment. Tad Peters, referring to an earlier article written by Geraci, says this about Geraci’s observations, “It is my judgement that Robert. M Geraci is mistaken when he insists that the AI movement is apocalyptic...Geraci rightly recognizes that the transhumanists replace divine action with revolutionary progress...but then fails to acknowledge that this implies a non-apocalyptic form of transformation” (Peters 2011, 163). Though I am inclined to agree with Peters on certain points, primarily his take on the tenuous connection that Geraci makes to the Judeo-Christian apocalypse and the *Mind Fire*, the fact that Geraci makes a connection between transhumanism and religion is in itself a notable contribution to religious studies and warrants scholarly attention. However, with that said, the argument for and against transhumanism as a religion becomes somewhat moot if we are less inclined to view ‘religion’ from such a generalistic perspective, and start accepting it as a cultural activity (King 1999). That is understanding ‘religion’ as an activity that different peoples, with similar interests and goals, engage in¹⁰.

The Turing Paradox

The previous chapter evaluated the nature of science and religion and how transhumanism, in many ways, reflects the damage caused by many years of the misinterpretation of the science/religion relationship. What was illustrated by this was how these beliefs have negatively affected the modern understanding of these phenomena. That said, in spite of this, this chapter also highlighted the fact that transhumanism has the potential to be a religion. This revelation in many ways emphasises the importance of accepting science and religion as complex cultural phenomena and not demarcating them into archaic and reductionist categories. The main focus of this debate was Geraci’s *Apocalyptic AI*, and regardless as to whether or not others agree or disagree with Geraci’s point the fact that he managed to draw a comparison between transhumanism and conventional ‘religion’ helps this study immensely. That is to say that even without drawing on the innovative argument presented by Geraci, transhumanism’s link to ‘religion’ is in many ways apparent, especially if we understand religion to be hard to define. Not to mention the fact that much of the understanding of transhumanism’s disassociation from religion seems to stem from the fact that it does not

¹⁰ I refer back to the previous chapter where I suggest that Kendo can be regarded in many ways as a religious activity. For further insight into the idea of popular cultural activities, as religious, please see Lynch (2004).

adhere to a revered supernatural being. As has been pointed out previously however this really only applies to specific definitions of 'religion' and a conventional understanding of it.

Despite this however, what Geraci has demonstrated is that even without the presence of a supernatural deity, transhumanism in many ways fits a rather conventional (albeit somewhat limited) understanding of religion. It is interesting to note however that even if we completely disregard Geraci's hypothesis, More himself (most likely by accident and without his knowledge) demonstrates that transhumanism is a 'religion' (or at least one understanding of it) by declaring that it is a "life philosophy" (More 2013, 4). That is to say that it treads dangerously close to what Barbour defined (in an earlier section of this thesis) as one of the functions of a religion. One might say that this is rather ironic especially as More and many of the other transhumanists that we have looked at are adamant in illustrating that transhumanism is a "philosophy of life" or a "worldview" but are rather against it having any connection to religion. This further solidifies the fact that 'religion' is a highly interpretive category and cannot be dismissed so lightly.

So what was the point of this entire exercise? It in many ways demonstrates quite effectively that the evolution of science and religion in the west go hand in hand and that this relationship is not only dynamic but in the case of transhumanism, is in constant flux. So in many respects it is not a matter of proving or disproving whether or not transhumanism is a religion (although the fact that some individuals see it as such is grounds for the fact that some believe it is); it is a way of demonstrating one probable trajectory that this relationship has taken in the 21st century.

In other words, the fact that transhumanism sees itself as a scientific movement rather than a 'spiritual one', even though individuals like Geraci have put rather persuasive arguments forward to suggest otherwise, makes it a very tantalising prospect for evaluation. Primarily because it is desperately trying to demarcate itself from religion and is working so hard to gain credibility in the eyes of science. In many ways when seeing transhumanism in this light it comes across as struggling with an alter ego in order to find its true identity, one that is obviously an amalgamation of many phenomena. This strongly supports King's and others' points that we are dealing primarily with complex cultural phenomena that cannot, or for that matter should not, be understood independently because doing so results in a great deal of confusion, misinterpretation and endless problems. For instance, if science and religion were not at one point regarded as two separate things, and wrongfully interpreted as logical and illogical, would transhumanism find itself at odds with itself? In many ways the struggle that transhumanism faces is a microcosmic representation of the problems associated with years of misinterpretation and misunderstanding of the true nature of science and religion.

This however is not the only appeal of transhumanism. It has other purposes. For instance the fact that we have successfully demonstrated that the majority of transhumanists view transhumanism as a ‘cultural’ and/or a ‘scientific movement’ is of interest here as well. However it may seem counterintuitive that transhumanism in this instance, a movement that primarily sees itself as incompatible with religion, was chosen over other ‘spiritual/ scientific movements’ that already have a spiritual element to them like *Evolutionary Enlightenment*¹¹. However that would greatly depend on what we were trying to achieve with our example. To elaborate the choice made to focus on transhumanism is primarily down to the fact that it sees itself more as a scientific movement rather than a spiritual one, whereas *Evolutionary Enlightenment* sees itself more as a spirituality one for the scientific age (though this is an oversimplistic interpretation of a very interesting cultural movement). Because transhumanism regards itself as a scientific movement rather than a religious one, and really struggles with the possibility that it could have a connection to religion, makes it a truer representation of the problems resulting from years of misinterpretation and representation of the relationship between science and religion. However, regardless of how it sees itself it is a true representation (although not the only one) of how this relationship has evolved. Furthermore, and perhaps most importantly one of the main reasons for focusing on transhumanism was because of how well it translates cross culturally. As a result of its rather transient nature it provides us with an interesting example of how a relationship that has been primarily western can come together in a movement that does not discriminate culturally, and in many ways seems to harbour ideas that translate quite well cross-culturally. Therefore, the last section of this thesis will be focusing on a number of these cross-cultural transhumanist beliefs and will do so through the medium of film.

¹¹ In order to understanding *Evolutionary Enlightenment* it is probably best to return to its source. On andrewcohen.org *Evolutionary Enlightenment* is described thusly (even though it reads more like an advertisement rather than a decent definition): “*Evolutionary Enlightenment* is not simply repackaging ancient wisdom for a modern world. It presents an authentic spiritual innovation, a comprehensive philosophy, path, and practice forged through more than two decades of transformative spiritual work... Cohen...has re-envisioned spiritual enlightenment in a context completely different than the one of the Buddha’s time. This context is, as he writes, nothing less than ‘the fourteen-billion-year epic of our cosmic evolution—a vast perspective that enhances and enlarges to almost infinite proportions our sense of the significance of what it means to be human.’ The essence of Cohen’s message is simple yet profound: Life is evolution, and enlightenment is about awakening to what he calls ‘the Evolutionary Impulse’ as our own authentic self, so we can consciously take responsibility for creating the future. Cohen describes this spiritual impulse as ‘that ecstatic urgency and blissful clarity that mysteriously compels us not only to awaken but also to evolve.’” (<http://andrewcohen.org/about/EE> accessed by author October 31st 3:19 AM)

The Holomorphic Function

I have noted in the past that the personal struggle and identity crisis that transhumanism faces is a microcosmic representation of years of misunderstanding and misinterpretation of the differences between science and religion, a monster that is in many ways a creation of a Western mentality that has desperately tried to separate two phenomena into many different categories; with that said, if we were to adopt a better understanding and neutral stance as to what transhumanism actually represents in terms of this relationship what we will find is something more positive. That is to say that it is only negative if we insist on sticking to the rather draconian (and incorrect) assumption that we are dealing with two separate and simplistic phenomena (science/religion); transhumanism has a great deal of promise if we can pull ourselves away from getting stuck in the often negative cyclical understanding that religion is governed by conventional and easily definable terms. Three such positives are: (1) it can help us better understand the relationship between science and religion in popular culture¹²; (2) it has a rather positive ‘look to the future’ mentality that opens one up to a world of imagination and many possibilities related to science/religion; (3) and most importantly it has a very flexible and transmogrifying quality to it, that allows it to transcend cultures, unlike many other beliefs and practices that we have looked at in this thesis; which in many ways would tackle one of the major ‘roadblocks’ (borrowing the term from Peters) that the science/religion relationship often faces. We will demonstrate these points through the medium of film, as it is through film that we can perhaps better understand how this relationship has evolved and the promise that a movement like transhumanism presents for future generations.

The reason why film was chosen to highlight these connections is summed up quite succinctly by Melanie J. Wright who writes that “film is an enormously popular medium. It shapes and reflects a range of cultural, economic, religious and social practices and positions in modern society” (Wright 2007). She also alludes to the fact that religious ideas and rituals are often represented in film and dedicates her book *Religion and Film: An Introduction* to this very concept. There are of course a plethora of scholars including John C. Lyden, William Telford, Chris Deacy, and others who have had very similar ideas to Wright, as to the role that films play in the dissemination of cultural ideas. For instance, both Lyden (2003) and Deacy (2005) agree that religion is moving into the secular and that the simple action of going to see a film may in itself be a religious activity. They also highlight that the popularity of certain films can help one gauge the “spiritual landscape” of today’s western society (Deacy 2005). Another such

¹² For religion in popular culture there are a number of books that one can look at. Three that spring to mind and that were used in this thesis are Lynch’s *Understanding Theology and Popular Culture* (2005), Chidester’s *Authentic Fakes* (2005) and Rachel Wagner’s *Godwired: Religion, Ritual and Virtual Reality* (2012) that explores questions between religions relationship and popular medium like video-games.

example is presented to us by Frances Flannery-Dailey who, in her, “Robot Heavens and Robot Dreams: Ultimate Reality in A.I.” comments that, “film is a uniquely qualified medium for expressing...cosmology” (Flannery-Dailey 2003, 2). What makes it uniquely qualified is its ability to transmit a great deal of information to a large group of individuals that may not have access to it without the help of this said medium. Flannery-Dailey further states that:

...although many of the films draw on ancient religious and philosophical themes to express this notion, at its root, the cinematic focus on questions of ultimate reality constitutes a postmodern response to a troubling period of modern ‘progress’. (Ibid)

As is suggested by Wright, film can be used as a means to distribute information to a wider audience on many different cultural phenomena. Though she mentions religion as well as other less defined cultural practices, there is no reason (especially if we are to follow the hypothesis set out by this thesis) why transhumanism cannot fit one of these cultural practices. This is supported by Eva Flicker who states in her essay titled *Women Scientist in Mainstream Film: Social Role Models—A contribution to the Public Understanding of Science from the perspective of Film Sociology*, that a great deal of the populace’s understanding of scientific theories and ideas, as well as religious dogmas, whether familiar or unfamiliar, are presented to a more global audience through the medium of film. (Flicker 2008, 241). Furthermore, Chris Deacy suggests in his *Faith in Film* that film is one of these “contemporary secular agencies that has challenged traditional religious institutions” (Deacy 2005, 12). Though we are not looking at traditional religious institutions, *per se*, there is no reason why film cannot and does not challenge other traditional ways of thinking about concepts like science/religion or in the case of this chapter, transhumanism.

What is further suggested by this evidence is that film is a legitimate medium to approach if one wants to gain a clearer insight into popular beliefs, practices, trends, and modes of thought. This is supported by Telford who suggests that there are at least four ways (what he refers to as lenses) in which films can be evaluated. The two most relevant to this thesis are the sociological and cultural. Through a “sociological lens” one can use film as a means to appreciate what is happening in modern society; and through the “cultural”, one can gain a clearer idea of current (and past) ideologies and practices (Telford 2005, 17). However as this thesis chapter focusses on a particular ideological belief (transhumanism) a “cultural lens” approach will be implemented more fully here than the sociological. Film will therefore be utilized in this chapter to identify and to illustrate not only the popularity of transhumanism, but its transcultural qualities.

The reason for choosing science fiction (SF) for this assessment is that it seems to share similar essential qualities with transhumanism. For instance (as has been previously mentioned) the *Mind Fire* is a transhumanist belief that at some point in the future humans will be capable of uploading their consciousness into a machine, inevitably resulting in human immortality and their existence in a virtual *nirvana*. As we will see, this concept is covered to one degree or another in a number of SF films. Two of which, *The Matrix* trilogy and *Ghost in the Shell* will be covered in this chapter. However these are not the only films that look at a future similar to the one envisioned by transhumanists. Many SF films portray a future where cyber or advanced bio-technology is the key to a longer and better human existence. Even if this technology is not affordable by all humans in the ‘near future’, a future where these technologies exist and are available is a very common trope in science fiction. A recent film that covers this terrain is *Elysium* (2013) where the protagonist fuses with an exo-skeleton to enhance his human capabilities. That said, there are a number that look at possible futures where humans are either enhanced cybernetically or where AIs have taken over the virtual and physical worlds.

The relevance of SF to this assessment has been pointed out briefly above; one definition of SF is posed by Mark Bould and Sherryll Vint who write that:

What is science fiction? A weird, popular genre full of spaceships, laser guns, robots and bug-eyed monsters? Fiction concerned with the impact of science and technology on human social life, and thus the literature best suited to understanding the contemporary world...The answer is in fact far more complex... (2011, 1)

There are many scholars who emphasise the importance of studying science-fiction (especially from a popular cultural perspective), but who agree that SF is quite difficult to define, not only in its own right, but also as a genre. For instance David Seed comments that, “Science fiction has proved notoriously difficult to define...it has been called a form of fantastic fiction and an historical literature... (Seed 2011, 1). Seed even makes it a point to suggest that reducing SF to merely one or two definitions will not do it justice and that doing so is where “...madness lies” (Ibid). That is not to say that scholars have not tried to define SF. For instance Seed informs us that Hugo Gernsback described SF as a “combination of romance, science, and prophecy”; that Robert Heinlein saw it as a “realistic speculation about future events”; and Darko Suvin believed it to be “a genre based on an imagined alternative to the reader’s environment” (qtd in Seed 2011). He further adds that it is also helpful to think of it as a mode rather than a genre, because in many ways SF is where, “...different genres and subgenres intersect” (Ibid). This is supported by Farah Mendlesohn who suggests that, “...one thing it [SF] is not is a genre”, rather it is what she describes as a “discussion or a mode” (Mendlesohn 2003, 2). Her reason for this is that if it were a genre “we would know the rough outline of every book that we picked

up” (Ibid) and because we do not, and the plots vary and borrow structure from different genres, it IS not. This can perhaps be better understood through the work of Altman who suggests that “genres are not objects that exist in the world and are then studied by critics, but fluid and tenuous constructions made by the interaction of various claims and practices” (qtd. in Bould and Vint 2011, 2). That is not to say however that these ‘modes’ or ‘subgenres’ do not exist under the category of SF.

For example, one such ‘mode’ is cyberpunk, which will be one of the main foci of this chapter. It must however be noted that cyberpunk takes up only a small fraction of SF (Bould and Vint 2011, 154). That said, it has made a major impact on SF and “its high profiles both within and without traditional SF readership...means that it tends to dominate perceptions...” (Ibid). In order to understand why cyberpunk was chosen for this assessment we turn to Dani Cavallaro who describes it as:

The roots of cyberpunk are not, of course, purely literary. The ‘cyber’ in cyberpunk refers to science and, in particular, to the revolutionary redefinition between the relationship between humans and machines brought about by the science of cybernetics...the virtual interchangeability of human bodies and machines is a recurring theme in cyberpunk and intrinsic to its representation of cyborgs. (2000, 12)

Though this is only one definition of cyberpunk, one can see its connection to SF quite clearly. After all, and in spite of the fact that SF is difficult to define, its popular understanding is that it is a fiction based on an imagined future of technological and scientific advancements. The key word here being *technology*. This is supported by Bruce Sterling who believed that it emerged in the 1980’s in partial response to global integration. When trying to understand the popular definition of cyberpunk and one of its relations to SF we turn once again to Lyden who suggests that science fiction is not purely based on the presence of the scientific as “opposed to supernatural explanations, but rather by the distinct set of issues it is usually focused upon, linked to the fact that technological explanations can be given” (Lyden 2003, 202). More to the point, when contemplating the connection between transhumanism and cyberpunk, one should get a clearer pictures of why it was chosen for this assessment. To elaborate, although cyberpunk takes many forms (Bould and Vint 2011, 156) what tends to set it apart is its focus on a few key concepts: a dystopian future often ruled by large corporations; and the evolution of the post-human through technological means (Ibid 154-164). One can see through reading the Transhumanist Declaration how strongly this movement resonates with at least one aspect of the cyberpunk genre, the advancement of technology to improve human life and existence. For instance, the Declaration champions the right to “morphological freedoms” and “overcoming aging, cognitive shortcomings” as well as “our confinement to planet earth” (More 2013, 54-55). Many of the ways in which these goals are achieved, however, are through advancements in computing, medicine, robotics, and cyber technology.

It must be noted however that although similar themes seem to resound between both transhumanism and SF, a number of scholars do not see a clear link between them. An example of two such individuals are Marsen (2011) and Blackford (2011). Though they admit that science fiction and transhumanism share some similarities, they ultimately recognise them as separate forums for expressing similar ideas:

In this context, we need a conceptual framework in which we can theorize and speculate on those advances, both anticipating and suggesting their possible uses, benefits, risks, and consequences. In other words, we need intellectual and cultural perspectives from where we can observe, think, and talk about these advances. Science fiction is one such forum where technology conceptualized in cultural terms. The group of futurist discourse grouped under the term *transhumanism* is another. (Marsen 2011, 85)

Science fiction is one ... though certainly not the only—resource available to people including transhumanists, who want to think about possibilities for our future. (Blackford 2011, 183).

One possible reason for this disassociation is that it is a manufactured separation. What is meant by this is that perhaps transhumanists are trying to move away from associating ‘fiction’ with what they believe to be a plausible future for technological and scientific advancement. This is evidenced in many ways by the absence of the term ‘Science Fiction’ in the indices of *The Transhumanist Reader*. For example, if one wishes to find any reference to science fiction in this tome he would be very hard pressed to do so, at least without a couple of ‘read-throughs’. *Ergo* the picture that begins to develop is that if transhumanism has a connection to SF it is a rather loose connection; one that comes across as almost forcibly disassociating science fiction from transhumanism. The logic for such an action is in many ways understandable and also justifiable especially from a transhumanist perspective.

To elaborate, as has been pointed out earlier in this thesis, many transhumanists are trying desperately to champion their cause as a legitimate one. If they were then to associate their movement with science fiction, *fiction* being the emphasised word here, it has the potential of causing substantial damage to the rather serious reputation that they are working very hard to achieve and to uphold. That is not to say that all transhumanists see things from the same perspectives of both Marsen and Blackford, as some do welcome science fiction authors and films; a number believe that it can in many ways further their agenda. This is suggested by Geraci who writes that “Transhumanists have recognized the power of science fiction to advance their cause and thus welcome sci-fi authors with open arms” (Geraci 2011, 166). Though this is all well and good, the comment in many ways emphasises the point that transhumanists consider themselves quite separate from SF, otherwise why even draw such a distinction in the first place.

If this is indeed the case, and science fiction and transhumanism occupy different spaces, at least from some transhumanists' perspectives, why choose SF film to illustrate how these transhumanist ideas are played out and understood by the public? The reason is that despite the need for some transhumanists to disassociate transhumanism from SF, they share (and this is even illustrated in the example above) a similar ideology. We can see this illustrated in the earlier examples presented on the origin of transhumanism and its connection to great authors like Clarke, Asimov and others. This is further supported by William Sims Bainbridge who states that “[science fiction] is a cultural movement that develops and disseminates potentially influential ideologies...” (Bainbridge 1986, 4). With that said it presents us with the possibility that through SF and its popularity, we can get a clearer insight into the more popular and general understanding of the microcosmic representation of the science/religion relationship that transhumanism seems to embody.

Tumbling Down the Rabbit Hole

For this brief survey I have picked two films to focus on. *The Matrix* trilogy (1999, 2003a, 2003b) which I have chosen as there is a plethora of research done on it, especially in regards to philosophy and religion. It has driven many debates due to its heavily influential philosophical and metaphysical undertones. We can see this illustrated in the works of Fielding's “Reassessing the Matrix/Reloaded” (2003); Wittung and Bamer's “From “Superman to Brahman: The religious Shift of The Matrix Mythology” (2006); and Flannery-Dailey and Wagner's “Wake Up! Gnosticism and Buddhism in the Matrix” (2001). The second film *Ghost in the Shell* (1995) has been chosen for a number of reasons. Firstly, as we are focusing on *The Matrix* it was only fitting to address *Ghost in the Shell*, primarily because of the impact that it had on *The Matrix*, to the extent that in an interview with its producer Joel Silver on both *The Animatrix* DVD and *The Matrix* DVD he states that the Wachowski siblings showed him *Ghost in the Shell* to which they responded that “we wanna do that for real”. There is also further evidence to suggest that *The Ghost in the Shell*'s “strong visuals” were an inspiration for many of the scenes within *The Matrix*. This is commented on in a 2006 interview with Production I.G's Mitsuhiro Ishikawa producer of *The Ghost in the Shell* (Ishikawa interviewed in The South Bank Show, episode broadcast 19th of February 2006).

Secondly, unlike *The Matrix*, *Ghost in the Shell*'s (GiTS) ingenuity has in many ways gone largely unnoticed in academic circles even though it can be argued that it has as much to offer and contribute to film interpretations as does *The Matrix*. This is especially the case when representing the transhumanist vision in popular media. Thirdly and perhaps most importantly, aspect of *GiTS* along with its sequels/prequels *Innocence*; *Stand Alone Complex*:

Solid State Society and *Stand Alone Complex* (another feature length film and TV series) gives us a very clear idea as to how many transhumanist ideas, especially the metaphorical *Mind Fire* and “the singularity” translate cross culturally. That is of course not to say that *The Matrix* was not popular in Japan as is evidenced in a 2003 BBC article below:

The Matrix Reloaded has broken box-office records in Japan in its first week on release.

The film, the sequel to 1999's *The Matrix*, took more than ¥2.2 bn (£11.5m) over the opening weekend, including nearly ¥892m (£5m) from advanced previews alone.

On 31 May the film took ¥465m (£2.5m) to beat the biggest one-day record, previously held by *Harry Potter and the Chamber of Secrets* (accessed Feb 12th 2015 <http://news.bbc.co.uk/1/hi/entertainment/2975050.stm>).

What makes *GiTS* somewhat special and more appropriate than *The Matrix* in demonstrating cross cultural pollination, is the fact that *GiTS*, although dealing with distinctly Japanese themes, has also been heavily influenced by the cyberpunk subgenre. This is perhaps summed up quite well by Bould and Vint who state that, “*Ghost in the Shell*...manga and anime have had a widespread impact on European and US culture in general, and SF in particular, reflecting in reality aspects of *Neuromancer*'s vision of a Japanese...future” (Bould and Vint 2011, 156). The eastern appeal of cyberpunk is commented on by Bolton, Csicsery-Ronay Jr and Tatsumi who state that:

Cyberpunk, which was often derided by Western science fiction critics for being cartoonish, immediately appealed to a Japanese sensibility that had been nurtured on science fiction manga and Japanese animation. The results were texts that synthesised the main themes of both Japanese and Western postmodernist science fiction—the breakdown of ontological boundaries, pervasive virtualisation, the political control of reality—as well as their artistic media...the effects of new “global” Japanese science fiction continue to propagate, in products from *The Matrix*...(Bolton, Csicsery-Ronay Jr. and Tatsumi 2007, ix).

In the case of our main protagonist in *GiTS*, Major Motoko Kusanagi is a cyborg that is effectively fully cybernetic (or so we are led to believe) apart from her brain which is believed to be biological. ‘The Major’ (as she is often referred to in the series) struggles with this fact and contemplates, at least in the first *GiTS*, whether or not she possesses a soul, which is often referred to as her *ghost*. It is here in the debate as to whether a machine has a soul where we see the crossing of western and eastern ‘religious’ belief. It is suggested by Morris Low, quoting Geraci, that whereas, “American researchers’ preference to focus on artificial intelligence (AI) and virtual reality as Christian beliefs in salvation in purified unearthly bodies encourages a disembodied approach to information. In Japan, in contrast...Buddhism and Shinto beliefs of *kami* (deities) being manifested in nature allow even robots to have a spirit” (Low 136, 2009). In questioning the existence of a soul in a machine, we are moving into territory closely related to the transhumanist vision for the future. For instance, both *The Matrix Trilogy* and *GiTS*

deal quite extensively with concepts such as supercomputers, nanotechnology, VR (virtual reality), SR (simulated reality) and AR (augmented reality) not to mention augmented humans, cyborgs and perhaps more closer to home (at least to the home of some transhumanists) concepts such as “the singularity” and the *Mind Fire* (although not directly). Moreover these two films question the future relationship between man and technology which is at the heart of transhumanist thought, as illustrated by the Transhumanist Declaration (More 2013, 54-55).

Not only does it bring the positive implications of such a future to bear, such as the ability for humans to live happier and healthier lives and reach their highest potential, but it deals with the possible negatives of technological advancement and fears of what these advancements can leave in their wake. It is not only dealing with the implications as well as consequences of such advancements like the age old tropes related to technology ‘spinning out of control’ or falling into the hands of nefarious individuals (as is another usual SF trope) but in the case of some SF, real concerns are addressed albeit in a futuristic setting. This is supported by Lyden who suggests that “...our fears about the future are also sometimes expressed through the fear that our technology will destroy us. This may take the form of nuclear or biological holocaust brought about by environmental carelessness, the development of doomsday weapons...or general scientific hubris...” (Lyden 2003, 205). This takes a slightly different form in *GiTS: The Solid State Society*, that deals with an aging population in future Japan and looks at the implications of remotely monitoring individuals in a society that lacks enough health providers to do so. In this film these individuals are hooked into a vast computer network where their vitals are monitored by health care professionals, whilst their bodies are left to fester and die in their beds. Though this film does not follow Lyden’s definition exactly, what is apparent in *GiTS:SSS* is a future where individuals are so reliant on technology that human beings (most notably the human body, because the mind has been uploaded to the ‘net’) are neglected and ignored to the point of bodily death.

What this film in many ways implies is that SF is not only a sounding board for future transhumanist ideas but that it is raising questions (or prophesizing) about potential technology and its impact on society. This is supported by Geraci who writes that, “...there is some cultural predilection towards giving science fiction greater credence than that given to pop science...as ‘science fiction’...books which start out in this genre have a potential to look prophetic” (Geraci 2011, 165) . This is further supported by Lyden who states that “Science fiction...deals with our hopes and fears for ourselves as a species in that it projects either utopian (perfectionistic) or dystopian (catastrophic) futures, or a combination of the two” (Lyden 2003, 203). Though it can be argued that *GitS: SSS* deals with the negatives, or to be more exact Lyden’s suggested ‘dystopian’ future, it deals with current and future fears in

Japan; specifically the inability to care for an ever aging population in a society where births are on the decline (<http://time.com/3651799/japan-birth-rate-population-shrinking/> accessed at 16:14 on February 25th 2015). Though it can be argued that the illustration of such a future is told from a very Japanese perspective, we see a similar ‘dystopian’ future illustrated in *The Matrix*. A future that also reflects the ‘downside’ of human/machine interaction, although in quite a different way than *GiTS:SSS*.

This interaction is suggested by Joy, who claims that those who are not ‘awakened’ in *The Matrix* are imprisoned within it and oblivious to the fact that they are living a lie in a virtual world (where they are being feasted upon by a supercomputer) and are hidden from horrors of the ‘real world’ so to speak, where humans and machines are at war (Joy, 2003). The film also portrays a world where both humans and machines are in many ways dependent on one another for survival. That is to say that *The Matrix* exists off the power it gains from imprisoned humans; but equally the Zionists rely on machines for survival and use them to fight other machines (like sentinels) that threaten their very existence and way of life. The multi-layered relationship that exists between human and machines is touched on frequently throughout the entire film, it can actually be argued that the whole film is based primarily on this very relationship. This is supported by Flannery-Dailey and Wagner who writes in “Wake Up! Gnosticism and Buddhism in The Matrix”:

By contrast, the “desert of the real,” is a wholly material, technological world, in which robots grow humans for energy, Neo can learn martial arts in seconds through a socket inserted into the back of his brain, and technology battles technology (Nebuchadnezzar vs. A.I., electromagnetic pulse vs. sentinels). Moreover, the battle against the matrix is itself made possible through technology - cell phones, computers, software training programs. "Waking up" in the film is leaving behind the matrix and awakening to a dismal cyber-world, which is the real material world (Flannery-Dailey and Wagner 2001, 37).

In reading this excerpt above it raises important questions about the relationship between man and machine. In a later paragraph Lyden suggests that this fear sometimes manifests itself in the “‘robot story’ in which human-created artificial intelligence becomes a threat to human survival” (Ibid). This “robot story” is revealed in the *Animatrix* where AI, disenchanted by how unfairly they are treated by their human creators, eventually go to war with them and win. This inevitably results in the enslavement of the human race and the creation of the Matrix. This is summed up by Lawrence who writes that:

Early in the 21st century, the advent of AI...led to a struggle for machine rights. All that the machines wanted was to be treated as free and equal citizens, but human governments would not allow it...the machines were banished. They [the machines] established their own city and named it 01, after the binary code that made their awareness possible...motivated by fear and prejudice, humanity declared war...and in an attempt to disable the solar powered machines, the human forces blackened the sky...this desperate measure was insufficient, and other machines ultimately defeated the human force (Lawrence 9, 2006)

One thing that remains clear from the above excerpt is that in *The Matrix* humans and machines also possess a rather symbiotic relationship; not too far from the future envisioned by many transhumanists, especially in relation to the *Mind Fire* and the “singularity”. We are introduced to this symbiotic relationship by the Ambassador in Zion who suggest to Neo that despite the war against the machines, humans could not survive without them. What is interesting about this relationship is that it is reciprocal. As has been pointed out above by Lawrence, what it demonstrates in *The Animatrix* is that without humans the machines would be non-existent (as it was the humans that first created them) and without machines, humans would have died out due to their own belligerence and a burning desire to destroy their creations. In many respects, this resonates somewhat with the transhumanists’ ideas that humans will create machines that will inevitably lead to a happier human existence. In the case of *The Matrix* the suggestion is, at least in one interpretation, that the only reason for human survival was because of their imprisonment; as the human condition would have ultimately led to their (the humans) destruction. This leads comfortably back to Lyden’s comment on the common SF trope of human hubris ultimately leading to the destruction of human civilisation (Lyden 2003, 205).

We see echoes of this in the film *I, Robot* (2004) where an AI takes Asimov’s “First law of robotics” (a robot may not injure a human being or, through inaction, allow a human being to come to harm) to its most logical conclusion; resulting in the imprisonment of humans by robots, for their own safety; that logic being that humans destroy one another and therefore must be stopped from doing so. Lyden’s take on this human/robot relationship in SF, and humans’ destructive tendencies have been touched upon above. This is further supported by Lawrence who suggests that “although they [the machines] keep the humans basically imprisoned, they still want to provide them with the best life possible” (Lawrence 2006, 10). In effect this is a beneficial deed enacted by the AI as is presented in *I, Robot* and *The Matrix* franchise; and although this relationship may seem unfair, as is reflected by our protagonists in *The Matrix* who view their situation as wrong and the computer as evil (for the most part at least), the machines in both cases are doing only what they are programmed to do.

That said, according to Flannery-Dailey and Wagner we get another side of the human/technology relationship presented to us. They suggest that “*The Matrix*, as it stands still asserts the superiority of the human capacity for imagination and realization over the limited ‘intelligence’ of technology” (Flannery-Dailey and Wagner, 2001 39); in essence demonstrating that the human condition gives it superiority over machines. In many ways we also see this reflected in the Transhumanist Declaration where they promote the human capacity for imagination and innovation especially when it comes to the creation of technology. However, transhumanists do take this a step further and suggest that there may come a time

when humans manage to create beings far superior, in many ways to themselves, and that they will use these ‘machines’ as a way to reach a state of transcendence. Primarily through merging (uploading) with them. Despite what Flannery-Dailey and Wagner suggest there are elements of this transhumanist vision played out quite strongly in *The Matrix* but this information can only be gained through following the entire narrative presented by the franchise¹³. That being the case, the Matrix did create the perfect world for humans but they were unable to sustain it. For instance, Agent Smith hints at this during his interrogation of Morpheus. He states that, “The first Matrix was designed to be a perfect human world where none suffered, where everyone would be happy”. In certain respects the first version of the Matrix represented *nirvana*. In regards to *nirvana* Keown describes it as:

‘Nirvana’ literally means ‘quenching’ or ‘blowing out’, in the way that a flame of a candle is blown out. But what is it that is ‘blown out’...what is extinguished, in fact, is the triple fire of greed, hatred, and delusion which leads to rebirth...in the last analysis the nature of final nirvana remains an enigma other than to those who experience it. What we can be *sure* of, however, is that it means the end of suffering and rebirth (Keown 1996, 55).

This in essence is also a very clear representation of a transhumanist ideal (with certain Buddhist undertones) as it is only through the *Mind Fire* (the uploading of human minds into a super computer which in many ways is echoed in version 1 of the Matrix) that humans will be driven from Plato’s cave to the world of knowledge and enlightenment. Plato’s cave being the world of shadows and falsehoods, which can only be breached through the learning of hidden knowledge; inevitably resulting in the propulsion of one from the world of darkness into the world of light (Plato’s *Republic—Book VII* 514-517 c). One can perhaps clearly see the connection between the real and virtual worlds in *The Matrix* and Plato’s allegory. This is supported by Ostwalt who suggests that individuals within *The Matrix* “exist in this world [the virtual]...in ignorance of the real, actual state of their world or their lives” (Ostwalt 176, 2003). He further adds that “they have been duped by a virtual world that to them appears real...a contemporary revisiting of Plato’s famous allegory...” (Ibid). How this relates to transhumanism is that, from a transhumanist perspective, it is through the merging of the human consciousness with an all knowing computer that humans will truly reach their god-like potential. In many ways this is reflected in Neo’s awakening from the Matrix into the

¹³ As a further note, much of the material that we looked at regarding *The Matrix* and religion, including this article was written before the release of the third film including *The Animatrix* and two computer games titled *Enter The Matrix* (2003) which coincided with *The Matrix Reloaded* and the MMORPG (massively multi-player online role play game *The Matrix Online* (2005) which continued the story beyond *The Matrix Reloaded*

physical world, which is brought about primarily through the help of technology, and his understanding and manipulation of it.

Ghost in the Shell: Through a “Mirror Darkly” Transcending the REAL

Though we have covered a great deal in the previous section relating to SF films and transhumanism, there are further questions that need to be addressed. Whereas *The Matrix* dealt quite efficiently with the question of humans’ relationship to machines, *GiTS* deals more effectively with questions of transcendence through the technological (tying into the transhumanist *Mind Fire*). The idea of the existence of spirituality in a world of science echoes Grassie’s (2010) and Geraci’s (2010, 2011) take on certain interpretations of transhumanism. Although we have looked at questions related to misunderstandings of religion, it is important to note that, as is supported by Fitzgerald (2000), regardless as to mine or others’ best (and often well supported) intentions to present religion in a different and less simplistic light, we would be remiss if we ignored the fact that many lay people (not to mention academics as has been demonstrated in this thesis) still view religion in this very reductionist and quite Eurocentric way. Keeping that in mind, what *GiTS* illustrates to us is the existence of spirituality in a very advanced and non-Eurocentric technological age (more advanced in many ways than our own) and does so through transhumanist themes, with Japanese cultural undertones. For instance, Kusanagi who (for all intents and purposes) is almost a fully cybernetic being has the potential, through technological means, to obtain ‘spiritual enlightenment’ even though she does not possess a soul; a concept that is somewhat of an anathema to Christian thought, but is quite acceptable in a religion like Shintoism that adheres to the belief that all things, both animate and inanimate, possess *mana*—a supernatural and mystical force (Sugimoto 2011, 264). The idea of enlightenment, through technology, is also supported by transhumanist thinkers as has been previously pointed out.

From the examples already illustrated in this thesis (relating to transhumanism) and the ones that follow, a picture begins to emerge of the cross-cultural assimilation of these ideas. It must be added that although reductionist definitions of religion and spirituality have been discouraged in this thesis it cannot be ignored that ideas of transcendence through technology occupies a space related to more traditional views of religion; satisfying those critics who are more familiar and hence, more comfortable, with the traditional functionalist and substantive definitions of religion. To give an example of what is meant by the cross-cultural integration of these ideas we turn to Thomas who points out the ‘religious’ undertones in *GiTS* and its exploration of possible ‘spiritual transcendence’ through technology:

Films like...*Kodaku kidotai* (Ghost in the Shell) question the category of religion through explorations of the possibility of apotheosis through technology. Films that incorporate the miraculous and the magical also make aesthetic usage of religions material, and some films also revamp older religious stories for new generations of audiences. A large number of anime include religious themes such as these without intentionally inculcating religious sentiment; films that attempt to educe such sentiment from a small but intriguing minority (Thomas 2009, 194)

This topic was also broached by Napier who suggests that "...it raises the possibility of technology's positive potential, not only in terms of the physical and mental augmentative offered by the cyborgs but also in terms of the possibility of spiritual development offered by an artificial intelligence known as the puppet master" (Napier 2005, 105). To put the above in context, though *Ghost in the Shell* is about 'the Major's' hunt for an elusive AI known as the puppet master, what the films primarily focus on (through scenes of occasional violence) is Kusanagi's "quest for her spiritual identity" (Ibid). This is further commented on by Napier who writes, "...Kusanagi's cyborg body rather than her mind...becomes the vehicle for the quest" (Napier 2005, 107). As a fully mechanical creation, she is concerned with whether she possesses a soul that animates her body.

Although we are dealing with less conventional ideas of 'religion' especially in regards to transhumanism, the cyborg concept strongly resonates with more traditional religious myths. One such example is the Golem myth. According to Harry Collins, author of *The Golem at large: what we should know about technology*, the golem "...is a creature of Jewish Mythology. It is a humanoid made by man from clay and water, with incantations and spells..." (Collins 1998, 1). This is in fact only partly true as a 'golem' also pertains to creatures created by God. As is suggested by the Talmud, Adam the first man was in fact a golem as he was moulded by God from dust and clay, and was only brought to life when God breathed life into him.

The day consisted of 12 hours. In the first hour, his [Adam's] dust was gathered; in the second, it was kneaded into a shapeless mass. In the third his limbs were shaped;--in the fourth, a soul was infused into him; in the fifth, he arose and stood on his feet (see Talmud tractate Sanhedrin 38b).

Though the golem myth is a rather Abrahamic one, we will stay with it for a moment especially as Kusanagi can be interpreted, in many ways, as a golem. After all she is a fully cybernetic being, and throughout the series the audience is left contemplating whether or not a "ghost" animates Kusanagi's body and thoughts. The audience shares this uncertainty with Kusanagi who is often questioning her own existence and that of her whispering ghost. This is supported by Napier who states that, "[Kusanagi] searches for the potential divine spark within herself that animates her body" (Napier 2005, 107). Though this is a theme that we see resonating in many science fiction stories including one of the classics, *Mary Shelley's Frankenstein*, it is

important to take a closer look as to what this myth is conveying to its audience especially in terms of transhumanism. This in many ways ties into Lyden's suggestion that playing god leads to unfortunate and also often negative consequences. When commenting on this very popular SF theme, he refers directly to Mary Shelley's *Frankenstein*. That said, although the concept of scientist playing god is somewhat touched upon in *GiTS* (after all doctors put her into her body, supposedly) it contains one rather striking distinction from *Frankenstein*, namely, that Kusanagi is not a galvanised corpse, like Frankenstein's monster, but a technological (mechanical) marvel with a possible soul.

GiTS's link to transhumanism is in many ways relatively clear especially as transhumanists are concerned with seeing to a future that will bring not only biological but technological advancements to human beings, this is backed up by Geraci who writes that, "...visions of transhumanism [are] grounded in the desire to become cyborgs, robots, or uploaded minds in reality" (Geraci 2012,586). Furthermore, what is demonstrated in the cybernetic character of Kusanagi, and in many ways transhumanism itself, is the idea of a non-biological creation possessing a soul. Though the golem, and its Abrahamic link has been touched upon previously, the myth of an inanimate object taking on a life of its own, or in the case of Kusanagi a 'ghost' (spirit) resonates quite strongly and significantly with Shintoism as well, as it has a connection to the *kami*. This is the concept within Shintoism that one may link to the definition of 'god', though it is imperative that they are not reduced to this. Sakamaki Shunzo explains the concept of the *kami* in Shinto:

The term *kami* is applied in the first place to the various deities of Heaven and Earth who are mentioned in the ancient records, as well as their spirits...which reside in the shrines where they are worshipped. Moreover, not only human beings, but birds, beasts, plants and trees, seas and mountains and all other things whatsoever which deserve to be dreaded and revered for their extraordinary and preeminent powers which they possess are called *kami*...they need not be eminent for surpassing nobleness, goodness...uncanny beings are also called *kami*...(Shunzo 1967).

The fact that *kami* are manifested in nature allow even robots to possess a spirit and to become "integrated [into Japanese] society" (Low 2009, 136). The significance of these *kami* and their link to cybernetics and also dolls (*ningyou*) as in the case of *GiTS Innocence* is pointed out by Cavallaro who writes that:

The film is also thematically imbued with other allusions to traditional Japanese culture. Central to its underlying philosophy is the Shinto-based belief that all entities—inorganic, artificial and inanimate ones included—are endowed with spiritual attributes. The hypothesis is most assiduously promulgated with reference to the *ningyou* ("doll")...Japanese culture has evinced a deep attachment to the symbolic attributes of dolls of countless guises for many centuries... (Cavallaro 2007, 110).

Though Cavallaro makes the point that she is referencing this concept in *Innocence* this is still in many ways a major theme in the original *GiTS manga* as well as the animated series, where Kusanagi, a full cyborg, is always struggling with questions about whether or not she possesses a soul, as is illustrated above. It must be noted however that despite what Kusanagi may be struggling with in terms of the possible existence of her soul, from a 'Shinto' perspective even if she was shown to be purely mechanical, rather than minutely biological, she would possess a spirit or a ghost as is demonstrated above. The Japanese concept of a 'ghost' (*tamashii*) is described by Orbaugh who writes that:

Rather than the mind (*seishin*), a 'ghost' is more like a person's spirit (*tamashii*), and logically it is also unconscious; in general it is made up of past experiences and memories; in general it is like water in a cup, premised upon the existence of some kind of shape (such as a metal suit or shell) (Orbaugh 2007, 186).

Furthermore, the cyborgs' transitory nature (a core part of certain transhumanist beliefs) means a great deal to both the East and the West, representing a common ground between the two. Moreover, what films like *Ghost in the Shell* illustrate is not only the 'golems' quest for enlightenment and a soul, which takes on a slightly different slant in the case of Shinto as is suggested above, but that with this very transhumanist ideal comes fundamental questions related to 'religion' and 'spirituality' in an age of technological advancement, illustrating in many ways the next potential step in the science/religion evolution.

Hylomorphism and Bringing It All Together: Possible Futures and Transhumanist Ideas Realised

If what Kurzweil and Morvec say is true, that within the next 40 years we should have created machines and AI that are capable of thinking for themselves (Geraci 2010), then this inevitably poses many more questions: ethical, societal, philosophical and so on. For instance Tom Koch believes that the transhumanist vision of perfecting the human is nothing more than a modern manifestation of eugenics, he states that "today's enhancement enthusiasts promise is just the old eugenics pitch, tarted up: bad science and bad policy promoted as deliverance for some" (Koch 2010, 697). On a slightly less pessimistic note, another example of those questioning the visions of transhumanists' is presented by James Hughes who suggests that transhumism has inherited "the internal contradictions and tensions of the Enlightenment tradition" (Hughes 2010, 622). He believes that it requires what he refers to as "irrational validation", that it "validates technocratic authoritarianism" and that "the rational materialist denial of discrete persistent selves calls into question the transhumanist project of individual longevity and enhancement" (Ibid). Hughes also brings to bear question relating to transhumanism and religion. He suggests that even though he sees most transhumanists as atheist, their belief in the transcendent power of technology and human capability has the potential of generating

new theologies, and is therefore a contradiction (Ibid). One can see validation in his suggestion, as the questions of transhumanism as a religion have been broached throughout this thesis, and it has been demonstrated that the generation of new theologies (from transhumanist beliefs) is no longer a potential, but a probable reality. This is especially the case if conventional ways of thinking about religion are abandoned. Furthermore, it ties quite nicely into our assessment of SF film as a means to express these beliefs and ideas. For instance, if SF film has anything to say about it, as soon as humans are capable of creating androids and cyborgs a dilemma may arise. This quandary is quite similar to that of Victor Frankenstein's; that is that the creation of a synthetic human being, as well as human perfection through technology, would thrust humans into the role of a creator-god. In essence, some transhumanist ideologies, as illustrated, champion the idea of the human creator. After all, transhumanists believe that it is human technology that will result in human transcendence, not a supernatural being. This is supported by Ostwalt who suggests that the binary opposition between God and humans no longer exists in the secular 'religions', because god is effectively removed from the equation (Ostwalt 2003, 170).

This of course only becomes an issue if we insist on understanding religion from a purely generalised and conventional point of view. That is not to say however that other problems would not potentially arise from this dilemma, especially as there are many Western religious beliefs that may not fuse with this 'new-found creator power'. Most notably, the notion of humans as fallible and non-supernatural creators. In contrast, if we were to hold a belief similar to that of Shinto we would perhaps find this exact dilemma as less pressing, because all creations possess *mana*; however in the west, as has been demonstrated in this thesis, we are strongly influenced by Christian views and values especially when it comes to 'religion'. Therefore, if we become the non-divine creators of machines that can think and act for themselves this may have implications for how we think of our creator ['God'] and our creations [robots] think of theirs [us]. This puts one in mind of Isaac Asimov's short story *Reason* where QT a robot that is able to "reason" and coordinates lesser robots in a space station, adopts his own "religion" where the power source of the ship is the "Master" not the humans that created him, and evidently makes the "lesser" robots his disciples. (Asimov 1983, 318-337)

Though the example provided above is from a SF short story, and much of what has been presented in this section seems to be dealing with possible future scenarios presented in SF film and dreamed up by members of an intellectual/cultural movement, a number of these abstract and somewhat fantastical ideas have begun to take shape. Perhaps the most emblematic of these is the creation of androids with human appearances. We can see this in the work of Robotics guru Hiroshi Ishiguro who, with the help of his team has created human-

looking androids known as the Geminoid HI-1 and HI-2 “...an accurate copy of Dr. Ishiguro himself” (<http://sitgesfilmfestival.com/eng/noticies/?id=1003063> accessed at 12:55 on May 1st 2012 and re-accessed on October 21st 2013). Though this is in the early stages of development this is merely a glimpse at the possible future (and at one time unimagined future) as prophesised by transhumanism and SF. Dr Ishiguro is also of the belief that androids will, in the not too distant future, be integrated into society. However he believes that this will be a steady process. One that he describes as gradually fusing androids into society so that they will not be a shock to humans when they are fully integrated. Ishiguro has this to say about this plausible future:

The end of the information age will coincide with the beginning of the robot age. However, we will not soon see a world in which humans and androids walk the streets together, like in movies or cartoons; instead, information technology and robotics will gradually fuse so that people will likely only notice when robot technology is already in use in various locations...Our role will be to lead this integration of information and robotics technologies by constantly proposing new scientific and technological concepts...Hereafter, human societies will continue to change due to "informationization" and robotization; in this ever-changing setting, artistic activities and philosophical speculation will allow us to comprehend the essential natures of humans and society, so that we can produce truly novel science and technological innovations in a research space which lies beyond current notions of "fields" and boundaries of existing knowledge. (<http://www.geminoid.jp/en/mission.html> accessed at 13:02 on the 1st of May 2012 and re-accessed on October 21st 2013).

This very much echoes transhumanist hopes and SF fears for the future. For example Ishiguro mentions the start of the “robot age” and the “robotization” of “human societies”. These concepts, as previously illustrated, closely mirror transhumanist dreams for the future. What this in effect demonstrates is that we are moving ever closer to a robotics age that has only been realised in popular culture. This suggests that film is the virtual realisation of things that are not yet achievable but are conceivable; which in essence gives it more credence as a legitimate sounding board for our imaginations and a medium for conveying messages. As commented on above by Ishiguro, his own work was inspired by films like *AI*, and ideas that were once imaginary tales only found in SF film and literature, are slowly becoming reality. Though we do not yet have the technology to create full cyborgs like Kusanagi, or the AI capacity to create robots or androids for that matter who can act and ponder questions of life, soul and existence, we are currently living in an age where human looking ‘machines’ are being created; autonomous cars are becoming a reality; and the UN is set to tackle ethical issues related to the newly coined autonomous ‘killer robot’ (<http://www.hrw.org/news/2013/10/21/un-hold-international-talks-killer-robots> accessed on October 23rd 2013). With all of this evidence ‘staring us in the face’ it seems as though it is only a matter of time that transhumanist and SF predictions of a futuristic world of technologies and AI, far beyond our past assumptions, will take shape.

In many ways Ishiguro's Geminoids emphasize the point above¹⁴ and that is with the creation of these 'golems' it will no longer only be a god-head that possesses the 'creator's spark' so to speak, but man. In many ways this is allegorically represented in the Geminoid HI-2 example above, which looks almost indistinguishable from its own creator. How this relates to our questions at hand and our understanding of the science/religion relationship is that films like *Ghost in the Shell* raise questions about the potential of this type of technology and the possible implications it will have on our identity as human beings. In the instance that technology has reached a point that enables scientists to create machines that are indistinguishable from humans, something that has been demonstrated as being closer to science fact rather than science fiction, what will happen to our limited definitions of religion when we are endowed with the divine spark of a creator deity? Will it be at this time when transhumanist teachings and SF are truly accepted as corroborative, and seen as very real 'religious' beliefs?

Similar questions are raised in McGrath's "Robots, Rights, and Religions", where he hypothesizes about a future where 'machine' may gain souls and question their creation, and creators, as well as their creators' faiths. He goes on to theorise how AIs may think of Christianity, Buddhism, and other human beliefs. One such question he raises is "what might an artificial sentience make of Buddhism's four noble truths" (McGrath 2011, 147-148)? One of his answers is that what he refers to as a 'machine person' (having all the characteristics of a human) may find Buddhism helpful. As one can see by responses such as these, these theories are not ground-breaking, however McGrath does make some entertaining guesses about a plausible future where AI and humans live together in harmony. That said, it must be noted that the entire article is based on one man's opinion about a future that may or may not come to pass. (Ibid 118-153).

That said, the concept of the human creator is a theme that recurs in many SF works. One such example is in the series *Battlestar Galactica* (2004) where the Cylons view humans as their selfish and fallible creators. If we are so intent on staying with our rather reductionist and often limited understanding of religion, when presented with the possibilities of becoming gods ourselves, this may have many grave consequences, especially if we are unable to recognise any difference between ourselves and the supernatural deities that we believe created us. However, this is only one substantive definition of 'religion' out of many, but as we

¹⁴ See page 157-158 above for possible questions related to the belief in a 'creator' that could be raised if we manage to create androids that are capable of reason. Also see link from June 2014 for more recent innovations in the area of robotics with the creation of more life like androids <http://www.ibtimes.co.uk/human-machine-life-like-android-robots-japan-show-glimpses-future-1453992>.

have clearly supported, it is one that is firmly rooted in how we in the West distinguish a 'religion' from a 'non-religion'.

It must be noted, these scenarios have not yet been realised and this is only one of the many possible futures that could come to pass. What is being dealt with here, and as illustrated clearly by McGrath's (2011) work, are hypotheticals; not to mention highly interpretive categories, meaning that there are many probabilities for the future, some more or less feasible than others. Furthermore, the impact that such technology will have on the human psyche is impossible to determine until these prophecies come to pass, if they come to pass. That is not to say that research is not being carried out in this area. For instance, Donna Haraway has contributed to the study of human machine interaction and the hypotheticals that may arise from such interaction (1991). There is also a great deal of research being done in many fields, not only on the creation of AI, but the philosophy of AI. One such researcher is Matt Carter who insists that the AI technology that is present in many SF films and books is not an impossibility, he is however quick to suggest that it also comes with some setbacks. He tells us this about AI in his *Minds and Computers; An introduction to the Philosophy of Artificial intelligence*:

We haven't seen anything here which leads us to believe that strong artificial intelligence is *impossible*...Prima facie, with a concession to the potential determination of further philosophical investigation, it seems that it may well be possible to design a computer which has a mind in the sense that we have minds....consequently, if we want to develop an artificial intelligence it must, in the first instance, be connected to the external world. Furthermore, our embryonic artificial intelligence must then be able to gather a weight of experience, through which it will be conferred with mental representations (Carter 2007, 206)

Interestingly enough, when it comes to technology and transcendence what SF films, and transhumanism seem to illustrate is that our technological creations have a better chance of transcending the spiritual and reaching enlightenment than their human creators. The reason for this is their connection to the world of computers and technology (at least this seems to be one trajectory that we can take). In many ways this is a reflection of the transhumanist dream for humankind. *Ghost in the Shell:SSS* describes this world, which is in essence the internet, as a 'rhizome'. Each branch of data and information gives rise to the next. This 'rhizome' in many ways reflects the transhumanist *Mind Fire*, human transcendence from the physical into an enlightened world that can only be realised through technological means. In the case of Kusanagi, she wants to escape the 'flesh' which in her case is entirely synthetic; and transcend into a nonphysical world where she can roam free. This is backed up by Napier who claims that "...Kusanagi wants to escape the physical, be it technological or organic, to fuse into a nonmaterial world where her ghost can roam free..."(Napier 2005, 113). However, because of her connection to her synthetic self she is more able to transcend the world of the physical for

that of the spiritual, then her biological comrades. This reaches full crescendo at the end of the film after her battle with the 'Puppet Master' when all that is left of Kusanagi is her broken cybernetic body. She is in fact encouraged by the super AI dubbed the 'puppet master' to leave her broken body behind and join 'him' in the vast realm of knowledge and enlightenment.

As has been demonstrated, numerous times in this thesis, this idea is a reflection of the transhumanist *Mind Fire*. However, with that said, Napier assures us that this is not a new notion in the world of science fiction. She writes that:

It is important to remember, moreover, that the notion of a bodiless supermind is one that has been a staple of Western science fiction as well, science at least the 1950s when Arthur C. Clark's classic novel *Childhood's End* envisaged future children linking together in a transcendent greater entity (Napier 2005, 114).

However she does also state that it also has very 'religious' connotations as well, not so much of the Christian afterlife, but the Buddhist concept of *nirvana* where Napier tell us that "...the self is said to become like a single drop in a vast ocean" (Ibid). Here we see a direct parallel between "religion" and technology; roughly speaking in *Ghost in the Shell* the internet which is in essence the world of knowledge and enlightenment takes on the role of heaven and *nirvana*. It is in essence a realm of transcendence, where knowledge is vast and infinite and only mind exists, this is reflected in the final line of the film where Kusanagi stares up at the sky which Napier suggests is "...implicitly...the net" and states that "the net is wide and infinite".

So what does this tell us about the science/religion dynamic? Firstly, it demonstrates that if we continue down the path of viewing these two phenomena in such simplistic terms then it may potentially cause us some serious identity issues, and a possible 'god-complex'. This is perhaps summed up quite succinctly through MacWilliams' interpretation of Victor Frankenstein where she comments on the fact that he is not a "modern Icarus...but [a] Prometheus, himself a god...punished for putting divine fire into human hands" (MacWilliams 2011, 80). To give this metaphor a more literal translation we turn once again to Lyden's concept of scientific hubris (Lyden 2003, 205). It is this hubris that inevitably leads to some scientists (especially in SF) to think of themselves as gods, much like Frankenstein, and mould the world in 'their image' through technological means. However, more importantly, what has also been illustrated is that science/religion are much better understood as complex cultural phenomena. This is evidenced by the fact that so many of the issues relating to science/religion phenomena are conveyed so well through a cultural medium like film. Furthermore, as we are dealing with complex cultural phenomena, it demonstrates that transhumanism as a 'cultural movement' that incorporates 'religious' as well as 'scientific' elements, is a useful tool for

bridging the gap between Eastern and Western beliefs. Evidenced above is that some transhumanist beliefs, especially those related to humans as quasi-divine creators and transcendence through the technological, seem to exist in both the East and the West. This suggests that transhumanism has the potential to bring quite distinctive and discrete cultures together under a number of shared beliefs. Even though this feat is very difficult to achieve if one relies purely on Western definitions of 'religion', if one were to view 'religion' as a cultural phenomenon, transhumanism becomes more viable as a possible contender for the next evolutionary step in the science/religion relationship. This may prove to be especially relevant in an uncertain future where humans exist in a technological and scientific world that is ever changing and advancing, a world that many may see as being dominated by a human creator, rather than a divine one.

Conclusion

This thesis began with a quote from Brooke stating that there is no relationship between science and religion, and that much of what is believed about this relationship was created through manufactured ideas that were brought about by the misinterpretation of the history of both science and religion. Certain distorted beliefs grew out of these wrongfully and somewhat anachronistic interpretations and are still present in the 21st century. This thesis set out to explore the nature of this relationship from its beginnings to the present day, and proposed to anatomize the extent of the damage that was caused by centuries of misinterpretation. Furthermore, a plan was executed to determine whether there is any existing residual “fallout”, so to speak, from this. To do this justice, however, it was important to look at a number of different aspects of this relationship. These ranged from: analysing the definitions of science and religion, to critically examining popular scholarship in fields related to this topic, and to provide examples of how this relationship has evolved within the 21st century, paying particular attention to SF film and producing a case-study for transhumanism. This was done in three distinctive chapters that focussed on one particular overarching theme and subtopics related to those themes.

To specify, demonstrated in Chapter One was the definition of religion. The reason for this decision was that one of the major causes of the misinterpretations of science/religion is due in part to the plethora of varying definitions of religion. Whether one is dealing with substantive, functionalist, or experiential definitions, these are often limited and reductionist in their outlook, and have the tendency to classify religion into *sui generis* categories. For instance, when one thinks of religion in the 21st century the first thing to come to mind is the idea of the belief in a god-head, as was presented in this chapter. This is an example of a substantive definition that has remained one of the most popular defining features of ‘religion’. This is a common theme that has arisen many times throughout this thesis especially in Chapter Two, where scholars’ assessments of science and religion are under scrutiny. Though the evaluation presented in Chapter One is drawing on familiar territory, as many scholars--like King and others--have raised a number of issues related to problems with definition, where the distinctiveness lies here is in calculating, observing, and analysing the effects that these general definitions have had on the 21st century comprehension of the science/religion phenomena and their popular appeal.

Another noticeable concern that was assessed in relation to the problems with definition are that many of the ways in which religion is understood in the 21st century are based quite

strongly on functionalist definitions of 'religion'; to the extent that some individuals like Dawkins deny that any relationship exists between religion and science. This is primarily due to the axiom that science deals in facts not in fiction and is therefore the more legitimate of the two phenomena. On closer inspection what was uncovered was that a great deal of these 'relating' approaches are built on other rather interpretive functionalist definitions of religion like morals, values, and community, many of which (as we have seen) have been used as criteria to set against science. In many respects, what has been discovered is that without these rather false and forced definitions of religion the whole idea of relating science and religion becomes a moot point, especially as they are based on many false assumptions.

A number of these false assumptions were also brought to light in order to clearly demonstrate the negative effects that such misinterpretation of religion have had on the modern perception of science/religion. Voss and Heninger are two such examples of scholars who have been effected by such falsehoods, as well as anachronistic readings into the past. That is to say that their motives for the justification of a once harmonious relationship between science and religion are based on false assumptions that such a relationship existed in the past. They are also of the belief, which seems to be a negative product of the Draper-White thesis, that the rationalistic attitude of the Enlightenment was the cause of the breakdown of this once symphonic relationship. These examples and others were chosen to emphasise the level of damage caused by a flawed understanding of science and religion, and to highlight the many anachronistic interpretations that go into this area of academia. As was illustrated in this thesis, these elucidations were caused by the fact that religion is poorly defined and understood and the history of science and religion, more so. As was further demonstrated, these problems arise because scholars in this field are so wrapped up in finding a way of relating science and religion, at the expense of decent scholarship, by basing their theories on very loose romantic assumptions, rather than facts. Another example demonstrative of these assumptions is Barbour's *Religion and Science*, where he quickly draws parallels between science and religion by focusing on a past that only exists within an anachronistic framework.

An additional purpose of this Chapter was to assess issues related to the effects that the Western construction of religion has on definitions. Though scholars like Asad and Dubuisson (to name a few) have dealt with these issues prior to this thesis, relating these approaches specifically to science/religion and the nature of these phenomena was a new and innovative approach. To elaborate, much of the popular scholarship related to science/religion in the past tended to either lump the two together in one general category or separate them into discrete ones, and all relied on very traditional definitions of religion. Furthermore, although there is a great emphasis in scholarship relating to the phenomenon of religion, as was demonstrated in this thesis, these methods have not yet been applied to science and religion. Perhaps one of

the reasons for this is that the scholarship mentioned above is relatively new in religious studies and it has only been in the last 20 years or so that scholarship (in regards to religion) of a more social scientific nature has been gaining momentum; whereas in the past, religion was a topic studied primarily by theologians and in a humanities setting. The capacious theological influence on religion is evidenced by the fact that the popular methods used to analyse religion are quite Christian in nature, and this is especially apparent in the heavy emphasis on Christian beliefs in the definitions of religion provided. To note further, these definitions most often have a rather Western bias attached to them. For example, as has been illustrated, one of the major themes associated with religion is the idea of a belief in a higher power, one that shares many similar characteristics with the Abrahamic God. As was further demonstrated, it is also this relation to a higher power, or the lack thereof, that often elicits a negative response in the 'eyes of science' to the significance of religion in the modern age. Equally, it is the lack of God in science that disillusion many Creationists, and elicits their often negative responses to science. It is also the rather Western understanding of a monotheistic 'higher-power' that takes precedence over other 'foreign' beliefs. As was revealed in this thesis, this is not surprising, because much of these Western beliefs are tied up in the history of the spread of Christianity.

Built from the historical and definition-laden features of Chapter One, the analysis in Chapter Two illustrated what the many misinterpretations related to the definition of religion and Western dominated beliefs led to, in terms of how these two phenomena are depicted in the 21st century. Further illustrated in this chapter was the importance in understanding the many changing definitions of science, from natural philosophy to its current modern day understanding. One of the primary goals of this chapter was to exhibit the fact that when scholars lump science and religion together as harmonious, taking Barbour's typology as an example, they have a tendency to think of science as a stagnant concept that has remained so throughout history, contributing more to the misinterpretation of this phenomenon rather than to the improvement of understanding. What was achieved by this chapter was to illustrate the complexities of this relationship and to emphasise the fact that these two phenomena had a rather parallel evolution.

Additionally, this Chapter paid particular attention to how these beliefs, regardless as to how erroneous they are, managed to dominate and infect what can and has been regarded as highly prestigious and innovative pieces of scholarship. What was highlighted was the fact that these beliefs are so ingrained in the Western psyche that many individuals cannot see past them; so much so that the scholarship that was considered suffered from many such oversights. For instance, Ian Barbour's work on science/religion typologies was built on primarily functionalist perspectives of religion. To explain, he very often commented on the fact that

religion was a way of life, and that it was based around the worship of a higher divine power. As a result his classifications are built on particular traditional foundations, and although they seem to be relatively innovative at present and more so at the time, they are only as innovative as his limited definitions of religion allowed for. Another important aspect that was brought to the foreground in response to Barbour's work is that once again these phenomena are placed into neat and tidy categories which, as has been pointed out in this thesis, are examples that there is a limited and erroneous understanding of these phenomena. By placing them into categories they are being reduced to relatively simplistic concepts.

This problem was further addressed through the assessment of many other scholarly works in the field of science and religion. Such an example was the work of Stenmark. Though his opusculum seems somewhat innovative as was pointed out in Chapter two, he is more concerned with creating categories of others' opinions of science and religion rather than focusing on the real issues surrounding this relationship. As has been demonstrated, this is not surprising especially as many of these categorical approaches, especially those that were written after 1998, are based on a specific recipe that was fashioned by Barbour which related science and religion through *integration* and *dialogue*. As was illustrated, one of the causes for Barbour's concepts to 'go viral', so to speak, was because it was a ground breaking achievement when first introduced, and no one thought to question the academic legitimacy of his claim. This was predominately the case because religious studies was dominated by theological methodologies. This in many ways is not a surprising response because, to an untrained eye, Barbour seemed to be presenting a remarkable contribution to scholarship by presenting a methodology that made science and religion compatible in an age that seemed to be adverse to this partnership. Once the veil is lifted, however, as this thesis has demonstrated, the real picture begins to emerge; that is that Barbour's thesis, although quite inventive, was built upon rather weak foundations and was based on an ideal rather than hard core facts.

Another criticism that was levelled at the current scholarship in the field of science and religion, induced by the problems of Western dominated definitions of religion, is the extremely Western and Christian biases that seem to prevail. Evaluated quite closely were the works of a number of other prestigious scholars who had a tendency to not only understand religion in terms of naïve and relatively simplistic definitions, but who were also quite oblivious to their own personal misconceptions. Brought to bear were the works of John Polkinghorne which are filled with certain biases, even though it is apparent that he had the best intentions. An example that comes to mind is his take on religious beliefs and inclusivity. Inclusivity in many ways is relatively fair as it embraces all, however through his inclusivity Polkinghorne assumes that all religions are generally the same, and based primarily on a God,

worship, and a communal space. The truth of the matter is that this postulation is based on a very western and also highly imperialistic mentality.

What was defined in this thesis was the fact that many of the scholars who hold such beliefs are unaware of their biases. Suggested was that one possible reason for this may be because the scholarship in this field is governed by primarily white western Christian men, individuals who are unaware of the fact that it was the west that modelled other religions on a highly Christianised and Euro-centric ideology. This was evidenced through the work of Polkinghorne who expressed the belief that because all religions share the worship of a higher power (which in itself is inaccurate) they are all legitimate religions, and that they merely believe in the same god but call him/her by different names. This and other examples were analysed to reinforce the fact that Christian biases, brought about through centuries of Christian dominated studies of religion, has caused a dismissal of other religious beliefs and practices and as a result have stripped away their cultural uniqueness. This was followed up by further investigations of the works of non-Christian scholars, and what was revealed was that much of what they speak of is clever rhetorical machinations rather than proof of science in their preferred religion. There was also mention of the fact that the phenomena of science/religion is not as widely studied in other areas of the world as they are in the West.

With that said, not all of the approaches that were evaluated in this thesis were of such a critical nature. For instance, a number of more favourable and suitable approaches for dealing with these phenomena were appraised. An example of this is in a work by Wertheim who takes a very historiographical approach to science and religion. This in many ways demonstrates the approach that many of these scholars need to be considering when they are relating science and religion, especially if they are to approach this question as objectively as possible. It must be noted that another positive aspect of Wertheim's work was that she was clear that what she was dealing with was not science and 'religion', but science and Christianity. It was pointed out in Chapter Two of this thesis that one of the main problems in the science/religion debate is that the researchers are not as honest with their topics as they should be. What this further illustrates was that their research would be less problematic, in certain respects, if they were more upfront about what they were trying to achieve; not the integration between science and religion, but science and Christianity.

Chapters One and Two focussed a great deal on how these misinterpretations came about and how prominent they are in scholarship, whereas Chapter Three investigated how these phenomena are understood and have evolved in today's society, through examples of popular media. This was undertaken through a cultural study of the intellectual movement known as transhumanism, and also through film. Transhumanism was chosen for this study because it

has some very interesting beliefs related to scientific advancement, primarily the belief that humans will advance and reach an enlightened sense of being, not through a divine perfecter, but through human ingenuity. As was demonstrated in this thesis, this is interesting in the sense that it is believed to be a rather Enlightenment principle, one that pitches science as superior to religion.

What made this even more fascinating as a case study were the many disputes surrounding this movement, especially in regards to its connection to religion and science. For instance, what this chapter set out to evaluate were the many differing opinions held and expressed by scholars and transhumanists alike, in terms of the nature of this movement. Regardless as to whether or not the sentiments voiced were pro or anti transhumanism as a religion, they proved equally fundamental to this assessment. The reason for this was because these opinions highlighted a number of important concepts related to the nature and evolution of these two phenomena: (1) they illustrated the fact that in some popular circles science and religion are still at odds with one another. This was evidenced, in this thesis, by the fact that many transhumanists did not see a religious connection to their movement and considered themselves atheistic. (2) Furthermore, these views demonstrated the extent of the damage caused by the Draper-White thesis, chiefly the misconception that religion hindered progressive thought and as an extension, science. The significance of these reactions, as illustrated were due to the fact that many transhumanists still held onto the view that religion was/is the antithesis of science. Their reasoning behind this being that they championed an Enlightenment mind set. (3) The fact that scholars can regard transhumanism as a religion also tells us a great deal about where the current focus lies in religious studies. Though it was suggested that scholars are taking a more open minded approach in their classification of religion by opening a dialogue that suggests that a cultural movement has the potential to be a religion, they are still very much focused on traditional functionalist and substantive definitions. This clearly defines the fact that religion is still classified and understood in an erroneous and simplistic way. (4) Lastly and to support the previous point, transhumanism was referred to in this thesis as a microcosmic representation of the perceived nature of science/religion, because it clearly shows that the many wrongful interpretations of this relationship are still prominent in the 21st century.

What was also achieved in this chapter was to demonstrate the dynamic qualities of the science/religion phenomena. To elaborate, throughout Chapter One and Two there were many references made to the aggressive history of science and religion. What was illustrated by their rather intricate histories, was the fact that both of these concepts are fluid ones. Additionally, there were a number of ascriptions made to Cantwell Smith's (1962) observation that religion is always in constant flux. Transhumanism was used to illustrate the truth behind these

explications and this was done through examining the reasons behind a 'religion status' being applied to transhumanism. This is a very significant find for a few reasons. The first is because this is a cultural /intellectual movement that has been identified as a religion by a number of scholars, and it was proven as such through its fulfilment of certain definitional criteria, therefore illustrating the mutability of these concepts. Secondly and conjointly these observations reveal the positive potential of accepting science and religion as cultural phenomena rather than *sui generis* concepts. Further evidenced through the case of transhumanism was that if religion is identified more with culture beliefs than it is with archaic definitions, it will open more avenues to less traditional Western beliefs and more creative, transcultural, and inclusive ones. Used in this chapter to attest this point was SF film. The reason for choosing it as an example was to demonstrate a commonality that exists between transhumanism and SF. *GiTS* was specifically selected because of its Japanese origin and the fact that it fits into a multicultural genre, cyberpunk; and as an extension embodied many transhumanist ideas. The fact that this film was released in Japan, US and UK and had a rather popular following, signifies that these ideas, if not devoutly embraced, are at least shared and understood by a multi-cultural audience. What this chapter set out to ascertain was whether or not transhumanism would make a viable option for a belief system that encompassed both science and religion, and is not dominated by Western bias. What was discovered was that transhumanism provides a belief system that has 'traditional' religious elements to it, but due to its scientific leanings and its diversity, does not discriminate culturally.

Future Research Directions

There is a great deal more that can be done on popular media and their effect on traditional religious movements as well as new religious movements. Though there have been many books written on 'secular religion' with a huge focus on film, more should be done on the effects of other cultural media like video-games, and *manga*, and how they give rise to 'religious' institutions like cosplay and 'geek gaming' culture. Though many of these cultural repositories have made their way into the West it would be interesting to study the extent of these influences in the West as well as the East, more closely, primarily appraising whether or not they are leading to 'new religious movements', especially cross-cultural ones. Questions that would be important to ask in this regard would be whether or not multi-cultural beliefs, and their amalgamation in video-games, are having some effect on the alterations of traditional belief structures. Another would be, whether or not these subcultural movements have the impetus to create new inclusive religious institutions. It would also be beneficial to ask whether

or not certain mythical themes have more of an Eastern or Western appeal, and if said games have an effect on the West, to evaluate the reasons behind this. Furthermore, interesting to examine would be the differences, if any, that exists between Westerners and Easterners who fall within certain subcultures; and if such differences are determined, to analyse why this is the case. If these differences, or lack thereof, can be successfully demonstrated a study such as this may have the potential to make more traditional belief systems appealing to a modern, multi-cultural audience, especially if it uncovers the factors behind the popularity of certain subcultural beliefs. In order to effectively study these phenomena, however, it is imperative that one adopt a more social/cultural scientific approach, rather than go down the traditional theological route. The reason for this is that secondary data is not sufficient enough in dealing with these phenomena. That is not to say that it is irrelevant, but a study such as this must be accurate and informative and project specific empirical results; and in order to do this effectively secondary data must be combined with field work.

Though Wagner has done an extensive piece on 'religion' and video-games, this text focuses too strongly on the so-called 'God factor' and still sticks to the very western way of viewing 'religion', not to mention that she adheres to a set of rather problematic (traditional) definitions of 'religion'. It is important to move away from this very western mind-set and any future research in this field must do the same. Furthermore, one must be aware that this 'Christocentric' mind-set is still relatively prominent and that it has affected the way 'religion' is viewed around the world, and the way in which research is done in term of religious studies; and it will continue to do so unless academics make a push to move away from problematic methodologies. Even though Wagner's approach is a rather conventional way of looking at 'religion' it would benefit the academic community to look at this from a slightly different angle. One suggestion is by delving more deeply into the games themselves and examining how these beliefs are spreading cross culturally. A fruitful ground for such an investigation would be the MMORPG (Massively Multiplayer Online Role-Playing Game). One of the core reasons for this is that individuals from around the world have access to games that run servers in both the East and the West, meaning that an individual from Japan can easily play online with an American or a European. Another reason for this is that as technology as well as individual time in front of a computer grows, a great deal of social activities will spread and are distributing to an online arena, which in many ways changes the traditional dynamic. That is to say that as technology advances, and one is moving towards an age of highly progressive computing, many traditional social interactions that were once performed in rather insular and isolated communities are now taking root in the net. Therefore, individuals have even greater access to wider and more global communities and can share beliefs and ideas instantaneously over thousands of miles. Transhumanism is one (out of a number) of the ways to understand the potential trajectory that these beliefs may take; primarily because it is a

movement set up in anticipation of what can be expected (at least from a certain point of view) in the technologically global age ahead.

That said, we are living in an age when many fruitful and prolific scholarly perspectives are being brought to the fore, despite a few protestations, mainly those associated with creationism and American conservatism. Scholars are now able to study the relationship between science and religion more thoroughly and exactly than they were in the past. Scholars are now moving into areas of future development, in the field, as well as trying to get to better grips with how certain technologies may transform traditional ways of viewing 'religion, 'science' and the science/religion relationship. This is due to the extensive amount of work that has gone into this field by forward thinking scholars over the years, like King, Asad, Harrison, Dubuisson, Geraci, Oswalt, and Deacy to name only a few. This is especially apparent in regards to how religion is defined, as well as the fact that scholars seem more amenable to taking rather unorthodox approaches to existing religious phenomena especially in dealing with misinterpretations of religion; it was these works, full of human ingenuity and imagination that made this thesis possible.

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