

**CAN WE SPEAK ABOUT DIVINE ACTION IN LIGHT OF A  
SCIENTIFIC COSMOLOGY?  
A CRITICAL ANALYSIS OF PHILIP CLAYTON'S MODEL OF DIVINE ACTION**

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## CHAPTER 1: INTRODUCTION

### 1.1: Introduction

This thesis will be an analysis of one specific solution to the dilemma on how one should relate theological models and the natural sciences. I will critically examine a theological model that claims to be in full dialogue with the natural sciences. The main basis for this analysis will be the writings of the theologian and Philosopher Philip Clayton. The analysis of his work will bring up several topics that I will discuss at length in this thesis. I will critically analyze Clayton's methodological assumptions, his philosophy of science, metaphysical assumptions. The primary concern of this thesis will be to engage with his model on how to relate the idea of divine action with the modern scientific cosmology that is suggested by the natural sciences. This model of divine action is framed in a particular understanding of the relationship between God and creation. It is a form of theism called panentheism<sup>1</sup>. This particular form of theism will be addressed at greater length in chapter 3.

In chapter 2 I will analyze the core philosophy of science that dominates Philip Clayton's theological project in his work. This understanding of science, as well as his understanding of what theology needs to be in light of this, will be the basis for the methodological assumptions for his theological model.

Chapter 3 will critically analyze central philosophical as well as philosophical theological concepts that are necessary for understanding and analyzing Clayton's suggested model of divine action. The two major concepts that will be addressed in this chapter will be emergence theory and panentheism. In this chapter, I will also attempt to situate Clayton in his immediate philosophical context. By this I mean giving a brief overview of important philosophers and philosophies that inform his work. These will be the basis for some of my criticism of Clayton. I will particularly make use of the philosophy Alfred North Whitehead, who is the central philosophical figure within the theological school Philip Clayton belongs to.

Whitehead is the father of process philosophy which informs a school of theology called process theology. This school of theology is central at Claremont school of theology, which is where Philip Clayton holds the Ingraham chair of theology.

Chapter 4 will be the chapter where I look at the model for divine action suggested by Philip

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<sup>1</sup> *Pan en theos* (All in God), not to be confused with *Pan theos* (All is God)

Clayton in his work. This model will be informed by the concepts and the methodology presented in the previous chapters. As divine action pertains to causality, this topic necessarily involves a concept of causality. This concept of causality will be informed by material presented in earlier chapters.

Chapter 5 will be the main chapter for criticism. In this chapter I will attempt to address a few potential problems with Philip Clayton's theological model. These criticisms will not be restricted to just criticism of his model for divine action, but will branch out further into more general related concerns. It will involve an attempt to offer criticism of the key concepts and metaphysics that inform his theological model.

Chapter 6 will be a brief summary and commentary of the analysis I have done. I will attempt to outline some of the problems brought forth by looking into these types of questions and I will suggest how one could proceed from the results of my work, by suggesting some new questions. In this final chapter I will also attempt to make the limitations of my analysis of the problem of divine action apparent to the reader. The problem of divine action is a complicated problem, that could be approached from multiple perspectives, all of which proceed based on various philosophical assumptions. This thesis is necessarily limited to looking at this problem within a fairly narrow philosophical perspective. Due to the scope of this thesis, I will restrict myself to criticisms informed by process philosophy, as well as the assumptions from philosophy of science that Clayton utilizes in his model.

## **1.2: My motivation:**

I want to start this thesis by writing a few words about my motivation for writing on this particular topic. I do believe the intersection between science and theology is becoming increasingly important, and that the future of theology depends on reflecting on the vision of reality provided by the natural sciences. It will be an absolute necessity for being able to talk intelligently about a concept like divine action. A theologian should be able to present a vision of God's action in the world, which I would claim is a central to Christianity, that is credible in the light of scientific cosmology.

This demand is made more urgent in light of the increasing presence of the rhetoric of the new atheists, particularly in popular media and popular literature. A good example of this would be

the biologist and new atheist Richard Dawkins, who essentially argues that modern science has made religion superfluous.<sup>2</sup> There is a lot to be said about the quality of the arguments presented by a thinker like Dawkins, but the particulars of his arguments are not as important as the general challenge inherent in them. The general challenge of them has taken hold in our culture. I do accept that general challenge, modern scientific cosmology is radically different than the cosmologies of antiquity and the middle ages which informed much of the expression of Christian theology. By that I do not mean that they are the necessary ground for them, as in Christian theology stands or falls based on the validity of those cosmologies. I do however think that modern science challenges theology to re-express its convictions in new ways, ways that are consistent with our new world view. This will be challenging. It is easy to think that it would necessarily lead to a diminishing of Christian thought and claims. I would like to challenge that claim. While the encounter with modern science might challenge and require significant revision of some parts, it also has the potential to enrich other parts. One example of the latter would be modern science showing us that mankind is very much a biological entity, part of an intricate ecological system and biological relationship with all other lifeforms. I do not think this reduces the importance of mankind, I rather think it is an opportunity for a renewed vision of the rest of creation. A renewed vision I think is of great importance in light of imminent ecological disaster due to human domination and abuse of nature. The main theological subject in this thesis however is divine action. It is however an area that is closely connected to what I have talked about above. The theology of divine action or divine immanence is to a large degree about the relationship between creator and creation, which is of great importance when considering other theological topics.

There is one important distinction to be made though. This could very easily be misconstrued as a call for theology to become entirely subservient to the natural sciences. That would be most unfortunate. It must be a dialogue between science, theology and philosophy, not a dictation to theology and philosophy by science. I do think that both theology and philosophy can offer criticisms, maybe not so much against science proper, but against certain presuppositions that can exist in scientific communities. Theology and philosophy can offer criticisms of for example reductionism and materialism that gets masked as science, particularly in more popular accounts of science, when they really are metaphysical and epistemological assumptions. Finally I would like to say a little bit about why I have chosen the work of Philip Clayton to be the focus for this thesis. The reason is simply that I think that

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2 See for example his best selling book *The God Delusion*

he is a theologian that really has taken the challenge of science as serious as possible. I do have some reservations about some of his conclusions, which I will of course convey in the critical analysis of his thought. He is also a theologian within the process school of theology<sup>3</sup>, which I greatly admire, who challenges some some doctrines that are typically associated with process theology. Process theology has typically been criticized for rejecting the doctrine of creatio ex nihilo. Clayton attempts combine insights from process theology with other forms of thought in order to affirm a traditional conception of the doctrine of creatio ex nihilo, while utilizing process theology to talk about divine action in light of science.

## CHAPTER 2: SCIENCE AND RELIGION

### 2.1: Introduction

This chapter will analyze Philip Clayton's view on the relationship between religion and science.<sup>4</sup> Clayton presents a model for relating these two enterprises, a model that is in many ways a middle way between the other options. I will start by presenting Ian G. Barbour's four ways of relating science and religion based his renowned book on the relationship between religion and science: *Religion and Science: Historical and Contemporary Issues*.<sup>5</sup> I will then look at Clayton's way of relating them and see how that fits in with Barbour's models. The reason I present Barbour's four models is to give a general impression of the various options before moving on to Clayton's more exact model.

Before I delve into these models I need to say a bit about why this reflection is necessary at all. This thesis is concerned with finding a way of doing constructive theology in a responsible way. In order to find a responsible way of doing constructive theology today, I have to situate myself in the present context. The question becomes: What must a theologian take into consideration when he or she attempts to present a constructive theology today? In order to answer this I must consider what discourse dominates the culture I want to speak to. Western society, and Norway probably even more so than the United States of America where Clayton is from, is a secular society. It is a secular society in which the natural sciences are very highly esteemed and one could argue that there is a certain level of implicit naturalism in

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3 Process theology is a school of theology that finds inspiration in the process philosophy of Alfred North Whitehead. There will be more detailed explanations of what this entails in the other chapters.

4 When I use the term religion in this context, it includes theology

5 Barbour, Ian G., *Religion and Science: Historical and Contemporary Issues: A Revised and Expanded Edition of Religion in an Age of Science*, Harper One, 1997

our culture, at the very least in public discourse. Religion on the other hand, is a discourse that is often thought of as belonging to the private sphere, the subjective sphere. This leads us to another fact of our modern society, it is a pluralistic society, a multicultural society. Then we end up with the idea of having a public sphere that is dominated by secular reasoning with an implicit naturalism and a private sphere where you will find, among other things, religion. Clayton points out that there is a tendency then to associate the public sphere with objective facts and the private sphere with subjective opinions, which leads to a relativism with regards to religion because it is then associated with an opinion or preference as opposed to the objective facts associated with the discourses taking place in the public sphere.<sup>6</sup> This can also lead to a form of religion which does not have a critical relationship to its own content. Of course, the view of secular society that I present here is a simplified one. I do not pretend to present a complete analysis of secularism here. These distinctions are sufficient for the purposes of this topic.

Science then becomes a culturally transcendent discourse. It can be pursued alongside a variety of subjective opinions which operate in the private subjective sphere of society. This implies that science deals in facts while religion deals in opinion, and that there really is no way of distinguishing the validity of one religious opinion over another. But the question is: Is science an absolutely objective discourse that transcends all culture? And is religion merely subjective opinions that has nothing to do with facts? Philip Clayton addresses these questions when he considers which model is best for viewing the relationship between religious truth and scientific truth. After presenting these models and showing which one Clayton prefers, I will move on to present what Clayton thinks a constructive theology must look like in light of his preferred model.

## **2.2: Ian Barbour's four models for relating science and religion**

Mainly there are four models for relating science and religion. In this subchapter I will present the different models so that I can both show which models this theology do not utilize and why this specific theology falls in under the chosen model. The four models that will be presented are: The conflict model, the independence model, the dialogue model and the integration model. The theology that this thesis is concerned with falls in under the integration model, and we will now see why.

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<sup>6</sup> Clayton, Philip, *Adventures in the Spirit: God, World and Divine Action*, p.23

### 2.2.1: The conflict model

The first model is the conflict model. As the name implies this is a model where religion and science are like two different competing perspectives on reality. They are two different domains of inquiry and those two domains are in conflict, they are mutually exclusive. It is a model where both science and religion are two entities that are governed by strong underlying philosophies. In the case of science this underlying philosophy tends to be scientific materialism or physicalism and in the case of religion it is the literal and fundamentalistic reading of scripture.

The scientific materialism is grounded in both an epistemological and a metaphysical presupposition. The epistemological presupposition is that the scientific method is the only way to acquire reliable knowledge and the metaphysical presupposition is that matter and energy constitutes the fundamental reality of the universe. These two presuppositions are linked together in a new presupposition that claims that only those things and causes that science investigates are real. Many forms of this scientific materialism also rests upon the presupposition of reductionism. Epistemological reductionism claims that the laws and theories in all of natural science are in principle reducible to physical and chemical laws.<sup>7</sup> This stands in contrast with the literal interpretation of scripture that characterizes fundamentalist<sup>8</sup> groups of religion. The thought that scripture is an infallible revelation is strong, and this infallibility also includes the cosmological claims of scripture. We can find an example of this in the famous Scopes trial from 1925, where conservative groups sought to forbid the teaching of the theory of evolution with the reasoning that it went against the biblical story of creation. From this we have the scientific creationism that claims that scientific evidence supports the biblical story of creation instead of contradicting it. Scientific creationism remains a strong influence in the United States of America today with prominent organizations such as Answers in Genesis<sup>9</sup> and The Institute for Creation Research<sup>10</sup>. There is also the intelligent design movement. Their conflict with science is different and not necessarily based on a literal reading of the biblical creation narratives. They are rather based on the idea of leaving room for the divine in order to explain natural phenomena. A well

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7 Barbour Ian G., Religion and Science: Historical and Contemporary Issues: A Revised and Expanded Edition of Religion in an Age of Science 1990. p.35

8 Fundamentalist in the sense of adhering to a literalist reading of scripture which is understood to be divinely dictated.

9 <https://answersingenesis.org/> sist tilgjengelig 28/04-2015

10 <http://www.icr.org/> sist tilgjengelig 28/04-2015

known example of this is famous intelligent design advocate and biochemist Michael Behe, who argues that there are examples of irreducible complexity within nature, particularly in biological organisms.<sup>11</sup> Irreducible complexity is the idea that there are mechanisms and systems in biological organisms that are too complex to have evolved from a gradual process of evolution because the absence of a single part of the system means that the system or mechanism no longer functions. This claim has however been criticized by biologists such as Kenneth Miller, who argues that these complex systems and mechanisms can evolve through a gradual process because the parts of the system served other functions before they became a part of a more complex system. The intelligent design movement claims that these irreducibly complex systems points to a designer. In other words, it points to gaps in the natural world which are then explained by invoking an intelligent designer.

The intelligent design movements also seem to spread to and influence conservative Christian Norwegian circles. Today we start seeing groups like these emerging here as well. Origo Norge is one example of such a group in a Norwegian context.<sup>12</sup> There are even academics that support that movement here.<sup>13</sup>

### **2.2.2: The independence model**

The second model is the independence model. It maintains, like the conflict model, that religion and science are two separate domains. At the same time it claims that these two domains are not mutually exclusive or in conflict. It is thought that there is a clear impenetrable line between the two. They address different questions and operate with different methods. It can be said that this model recognizes a wider and deeper reality from the point of view of science than the conflict model since it is recognized that those who work in the domain of religion works with a different part of reality that the scientific method cannot address due to methodological limitations. This model thus says that there are two epistemologies, one for science and one for religion, and they are separate. This is an epistemological dichotomy that traces back to the dualism between spirit and matter in medieval times.<sup>14</sup> The scientific belongs to and speaks about the material reality while the domain of religion belongs to and speaks about the spiritual reality. This distinction continued in protestant theology. It is especially present in Barthian theology that maintains that God

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11 See for example Darwin's Black Box: The Biochemical Challenge to Evolution by Michael Behe

12 [www.origonorge.no/ sist tilgjengelig](http://www.origonorge.no/sist-tilgjengelig) 28/04-2015

13 Livet -Skapelse eller tilfældighet av Kjell J. Tveter

14 Barbour Ian G., Religion and Science: Historical and Contemporary Issues: A Revised and Expanded Edition of Religion in an Age of Science 1990. p.282

can only be known like he is revealed in Christ, and be recognized by faith, God is the transcendent that we only know through revelation. Revelation, with the recognition of human factors in scripture, is thus the source for theology. It is thought that the cosmology that the theology is expressed through is not infallible due to human factors in the Bible.

The model does have some problems from my perspective. One of these problems is its strong focus on Gods radical otherness and transcendence. It is a focus that is so strong that it gets close to being a deistic portrait of God when Gods only immanent action is the incarnation in Christ. It then becomes problematic to talk about a God that is in any way active in the world today, which I find problematic as a Christian theologian. Another problem is religious pluralism, at least in light of Barthian theology where Christ is the only truth in the religious domain.

### **2.2.3: The dialog model**

The third model is the dialogue model. This model goes a step further than the independence model since it recognizes that there are areas of overlap between the two domains. These overlaps open the possibility for a dialogue between science and religion.

That where science reaches its epistemological limitation there starts the religious reflection and dimension is a central thought in this model. God is first and foremost known through revelation and tradition, but he is in a less obvious and more implicit way also known by all persons as “*the infinite horizon within which every finite object is apprehended*”.<sup>15</sup> This model is limited. It opens for a dialogue between science and religion, but only where science has reached its own epistemological limit. Religion thus becomes a kind of metaphysical reflection about possible explanations of scientific presuppositions about the order of the universe and its underlying rationality.

### **2.2.4: Integration model**

There are three versions of this model. There is what we call natural theology which is a form of theology where the existence of God is deduced from natural evidence such as the appearance of design, intelligent design being a prime example of this. Another version is what we call theology of nature that recognizes that the main source of theology lies outside the natural sciences, but that scientific theories and models can influence reformulations of

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<sup>15</sup> Ibid. p.92

theological doctrines, first and foremost the doctrines of creation. The last version which is most relevant to the theology analyzed in this thesis is the version called systematic synthesis. This is a version where both religion and science are in full dialog for the purpose of developing a coherent and inclusive metaphysic that is open to a pluralistic interpretation. We need to look at the concept of metaphysics and what is meant by a coherent and inclusive metaphysics. Ian Barbour gives a good definition of what is meant by this concept of metaphysics in this context: “*Metaphysics is the search for a set of general categories in terms of which diverse types of experience can be interpreted*”.<sup>16</sup> This is as we see an area that falls more within philosophy than theology or science, it is a general area where all parts can reflect.

Process philosophy is a candidate for such a metaphysic. Process philosophy is characterized by that it sees reality as a dynamic network of connected events called actual events. Nature is not something constant, but something that is under constant change due to the fact that it is always evolving.<sup>17</sup> A central point is that process philosophy strongly opposes a reductionist mindset. It sees both continuity and discontinuity between different levels of reality.<sup>18</sup> In this lies the idea that new properties, like for example self-consciousness in humans, evolve when more complex systems are made without these properties existing before in the parts that constitutes the system. This is what is known as emergence, and emergence theory is a central topic in this thesis that I will cover in detail in chapter 3.

God has a central role in process thinkers like Alfred North Whitehead. God is the source for novelty and order. Creation is understood as a long and incomplete process.<sup>19</sup> This is different than traditional creation theology<sup>20</sup>, and it shows one of the hallmarks of this integration model. That hallmark is that science and new models of reality can influence religions to reformulate traditional doctrines and cosmology. One example of this is that creation is understood as a long and incomplete process, where God is the ultimate source for novelty and order. This is a thought that can be understood as a result of the influence from the scientific theory of evolution and of a process philosophical outlook. We will look at how God is understood within the theological model of Philip Clayton, which is influenced by process theology in chapter 3 and 4. For now I hope that I have made it clear what the systematic

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16 Ibid. p.103

17 Evolving in this context takes on a meaning that goes beyond biological evolution. It is cosmic evolution, all entities are evolving and changing.

18 Ibid. p.104

19 Ibid.

20 It must be noted that there is a doctrine of creatio continua in traditional theology as well. Process theology is different that it emphasizes creatio continua at the expense of affirming creatio ex nihilo at all. Clayton tries to find a middle ground, using insights from process theology while affirming creatio ex nihilo.

synthesis version of the integration model is: a mutual influence between religion and science through an open and mutual dialog utilizing a common metaphysical arena like for example process philosophy.

### 2.3: Compatibilism without identity

How do we relate science and religion epistemologically? That is the question of the status of science and religion as knowledge. Philip Clayton considers this question and weighs the different options. This sub-chapter will focus on his conclusion for understanding science and religion as knowledge, I will inevitably touch upon his analysis of the other options when looking at the reasons behind Claytons conclusion. As the title of the sub-chapter indicates, he places the conclusion under the heading of “compatibilism without identity”. As the heading implies, he argues for the compatibility of scientific and religious knowledge without making their knowledge claims or epistemological status equal. This view is opposed to two other views, which Clayton names the “contrastive theory of religious truth” and “*the identity of scientific and religious truth*”.<sup>21</sup>

The former bears resemblance to what Barbour describes as the independence model for relating religion and science.<sup>22</sup> This view implies a form of scientific realism, that there is a correspondence between scientific theories and the way things really are. This is then contrasted with religious truths as “*subjective, passionate and intrinsically perspectival*”<sup>23</sup> This depiction of religious truth as inherently subjective implies another difference between scientific and religious knowledge. The religious person is inevitably involved in the quest for religious meaning, while the scientist is not involved in this way when he or she describes the world in terms of scientific theories. Scientific truth, in this view, is: *the truth of correspondence, the adequatio rei et intellectus. It evokes a picture theory of language, in which scientists create terms for the basic entities in the physical world (“reality as it really is”) and utilize mathematical functions to describe the lawlike interrelations among these real things.*<sup>24</sup> When Clayton describes this contrastive theory of religious truth, he is describing the difference in epistemological status between the two domains. He takes no position on whether these domains, under this view, is in conflict or whether they are complimentary to each other. That question depends on the validity one is willing to grant the involved and

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21 Clayton, Philip. *Adventures in the Spirit: God, World, Divine Action*, p.40 and p.42

22 See chapter 2.2.1

23 Clayton, Philip, *Adventures in the Spirit: God, World, Divine Action*, p.42

24 *Ibid.* p.41

subjective claims to religious truth.

The second option that Clayton considers is one of the identity of scientific and religious truth. This view involves a revised understanding of how the scientist relates to his object of observation as well as how theories and hypotheses are constructed and proposed. Clayton proposes that the activities of both science and religion involve: *“a critical use of hypotheses and doubt within a subjective human framework pervasively influenced by personal, societal and historical factors.”*<sup>25</sup> Compared to the contrastive theory of religious and scientific truth, this involves recognizing the hermeneutical nature of science as well as religion. Science is not conceived of as simply involving a neutral observer making sense of reality as it is. Rather, science is understood as a discipline where the dominant theoretical structures dictate or suggest further experiments as well as how the results of those experiments are interpreted, including what gets defined as anomalous results. The interests of the scientist and the institutions that the scientists are a part of are also a factor. It is not a disinterested observer, but an observer operating within a specific world view and within specific theoretical frameworks as well as representing and entertaining institutional and personal interests. There is, according to this view, no sharp contrast between scientific and religious truth. Science as well as religion operate in ways that are inevitably subjective and perspectival.

Clayton opposes this characteristic of scientific truth. He acknowledges that scientists and the institutions responsible for research and scientific work are affected by subjective factors. However, he notes that methodology of science are built to suppress or rule out such factors: *“But the nature of the activity requires that one suppress the influence of such factors -whether successfully, unconsciously, or in outright bad faith – in one's publications and lectures. “Objectivity” remains the regulative ideal of scientific practice, at least in the natural sciences.”*<sup>26</sup> There is a form of self-correction of such subjective factors in the very nature of scientific activity and methodology. The goal of scientific activity is to objectify the natural world.

#### **2.4: Problems associated with metaphysical talk about God**

I have now looked at the different ways it is possible to relate science and religion, as well as presenting the difference between scientific and religious knowledge and how Clayton thinks they can be related. There is another challenge to this project about talking about divine action

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25 Ibid. p.43

26 Ibid. p.49

and God in general. This challenge is epistemological in nature, it is the question of whether our talk about God has any basis in human experience. Whether we can do metaphysic and theology in a constitutive sense, as opposed to metaphysics and theology as mere regulative concepts.

That a concept is regulative means that the concept in question cannot be established as an object of knowledge, but “*they regulate the quest for knowledge rather than serving as actual items of knowledge themselves.*”<sup>27</sup> The philosopher Immanuel Kant view of God is one prime example of a regulative concept. God is for Kant a regulative concept that aids in our quest for knowledge as well as our moral life, but the existence of God as an objective reality cannot to be proven, or disproved, by reason. Clayton argues that this extends to metaphysical concepts as well. Metaphysics represents a set of necessary truths that are imagined to unify all fields of knowledge: “*Indeed, we might even define metaphysics as the attempt to express connections that represent the implied end points of rational reflection in other fields. Like the idea of God, then, metaphysical proposals formulate the regulative ideals of unified human knowledge.*”<sup>28</sup> Clayton only argues that metaphysics consists of regulative concepts insofar as God is a regulative concept, namely because both God and other metaphysical concepts inevitably serve as unifying concepts. The question then becomes whether Kant is necessarily correct by designating God as a regulative concept as opposed to a constitutive concept. The talk of concepts as regulative rather than constitutive shows a certain level of skepticism, a skepticism that involves the belief “*that the striving for unity tells more about the tendencies of our own understanding than about what really is.*”<sup>29</sup> This skepticism is built upon an epistemic dualism, a dualism of sense impressions versus ideas of reason. This dualism is assumed in both Kant and Hume. Clayton wants to challenge “*Kant's tidy distinction between intuitions, forms of intuition, percepts, schematized and unschematized concepts.*”<sup>30</sup> The dualism does not hold up when challenged. The challenge that Clayton puts forth for epistemic dualists is the the hermeneutical shift, which challenges the the universal a priori categories of Kant. The hermeneutical challenges whether such categories are a priori and universal. The insights of hermeneutics show that we select “*a particular conceptual scheme or paradigm, be it the theoretical structure of contemporary physics or the set of beliefs that define a social world for a given tribe or culture*”<sup>31</sup> If the hermeneutical challenge

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27 Clayton, Philip. *The Problem of God in Modern Thought*, William B. Eerdmans Publishing Company Grand Rapids, Michigan/Cambridge U.K., 2000. p.19

28 Ibid. p.21

29 Ibid.

30 Ibid. p.22

31 Ibid.

is correct in asserting that our conceptual scheme or paradigm, and thus what Kant calls a priori universal categories, are culturally contingent, then there can be no sharp distinction between sense impressions and ideas of reason. This has important consequences according to Clayton, among which is “*one will now be suspicious of attempts to specify fully which propositions may and may not qualify as knowledge using detailed criteria that one “knows” a priori*”<sup>32</sup>. This means that the separation between a regulative and a constitutive concept is no longer fixed: “*concepts which currently play a regulative role in our thought may later come to play a constitutive role within the context of a specific theory*”<sup>33</sup>. This is a shift towards pragmatism. What counts as knowledge is “*no longer regarded statically as a body of propositions resembling a more or less finished building, but dynamically a process of inquiry*”<sup>34</sup>. The truth and thus its status as a constitutive concept is not something that can be defined once and for all. Truth in this pragmatic turn is a regulating goal<sup>35</sup>, a telos of inquiry. And truth is “*the opinion which is fated to to be ultimately agreed to by all who investigate; correspondingly, reality is “the object represented in this opinion”*”<sup>36</sup>. The consequence of this pragmatic turn is that the line between regulative and constitutive concepts becomes blurred. Metaphysical talk about God is then possible, if it serves an explanatory purpose. If the opinion of all those who investigate agrees that God is an important concept to explain reality, then that is reality to use Pierce's criterion. Of course, such an agreement is hypothetical and remains the telos of inquiry, so metaphysical talk about God is useful because it might be necessary at some point.

## CHAPTER 3: EMERGENCE THEORY AND PANENTHEISM

### 3.1: Introduction

The primary purpose of this chapter will be descriptive. The main bulk of criticism of concepts and ideas described in this chapter will be located in chapter 5. The concepts presented in this chapter are the philosophical and philosophical-theological concepts that are necessary to analyze and understand Philip Clayton's model of divine action. The concepts that will be analyzed are emergence theory and panentheism.

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32 Ibid.

33 Ibid. p.23

34 Clayton, Philip, *Adventures in the Spirit: God, World, Divine Action*, p.32

35 Ibid. Clayton is citing Peter Skagestad

36 Ibid. p.31. Clayton is citing Charles Sanders Pierce

### 3.2: Emergence theory

Emergence theory stands in contrast to what is often referred to as reductionism. This simple statement already prompts further questions. Both emergence theory and reductionism are labels that can have a variety of meanings. Depending on our use of qualifying statements, they need not stand in complete opposition to each other at all. We have to qualify both emergence theory and reductionism by introducing the concepts of ontological and epistemological in relation to them. In the next two sub-chapters I will explore in some detail the difference between ontological and epistemological emergence theories and in doing that I will look at their respective relationships to ontological and epistemological reductionism.

But what is emergence theory in general? Emergence theory does not just stand in contrast to reductionism, it also stands in contrast to a dualistic understanding of reality. A topic of discussion that is often brought up when discussing emergence theory is the relationship between what we call mind and body. The reductionist will claim that what we refer to as the mind is reducible to the properties of neurons, which are reducible to the biochemistry that constitutes the neuron, which ultimately is reducible to the fundamental laws of physics. The dualist on the other hand will claim that mind is not reducible, mind is rather a different sort of reality altogether. The proponent of emergence theory would oppose both of these views. This brings us to the tenets of emergence theory, as they are put forth by Philip Clayton:

- 1) *Ontological physicalism: All that exists in the space-time world are the basic particles recognized by physics and their aggregates.*
- 2) *Property emergence: When aggregates of material particles attain an appropriate level of organizational complexity, genuinely novel properties emerge in these complex systems. The irreducibility of the emergence: Emergent properties are irreducible to, and unpredictable from, the lower-level phenomena from which they emerge.*
- 3) *Downward causation: Higher-level entities causally affect their lower-level constituents.*<sup>37</sup>

The first point is the doctrine of physicalism. This essentially means that the only thing that exists in space-time are particles that are recognized by physics and their aggregates. This

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Clayton, Philip. *Conceptual Foundations of Emergence Theory, The Re-Emergence of Emergence: The Emergentist Hypothesis from Science to Religion*, edited by Philip Clayton and Paul Davies, Oxford University Press, 2006. p.2

doctrine obviously stands in contrast with various forms of dualism.

Clayton quickly qualifies this first part of the definition of emergence. He widens the principle of ontological physicalism to that of ontological monism. What he means by this is that reality is composed of one basic kind of stuff. Where it differs from physicalism is the claim that physics, or the ontology of physics, is insufficient when it comes to explain: “*-all the ways this stuff becomes structured, individuated and causally efficacious. The one 'stuff' apparently takes forms for which the explanations of physics, and thus the ontology of physics (or 'physicalism' for short), are not adequate.*”<sup>38</sup> Thus there is a monistic conception of reality, but a monism that physics does not have a privileged access to and where other disciplines that describe world, for example biology and chemistry, aren't simply derivatives of physics, but represents and describes other levels of reality. It is therefore a form of emergent monism, the view that genuinely new levels of reality emerge that are not exhausted by the explanatory tools of disciplines that work with describing the constituents of these realities.

The second point needs to be expanded by explaining what it means for a property to be emergent:

*For any emergent property P of some object O, four conditions hold:*

- 1) P supervenes on properties of the parts of O;*
- 2) P is not had by any of the object's parts;*
- 3) P is distinct from any structural property of O;*
- 4) P has direct ('downward') determinative influence on the pattern of behavior involving O's parts.*<sup>39</sup>

The third and fourth point are sufficiently explained, at least for my purposes. They do become relevant when discussing whether emergence theory is ontological or epistemological. The questions of whether emergent properties are irreducible or not and of the reality of downward causality are essentially the difference between the two main varieties of emergence theory. I will now turn to looking at epistemological emergence theory before I move on to ontological emergence theory and Clayton's case for the reality of ontological emergence theory and its relevance for theology.

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38 Ibid.

39 Ibid. p.3

### 3.2.1: Epistemological emergence

Epistemological emergence, also called weak emergence, is the view that when we talk about an emergent property we are doing it for epistemological reasons. This means that the reason we call these properties emergent is our own ignorance and inability to comprehend the causal complexity that gives rise to the property. This means that the property that is said to be emergent is, at least in principle, reducible to causes and properties of the parts that make up the object.

One way of looking at it is to say that the emergent property is observer-relevant. That is that they are classified as emergent based on how interesting the high-level property in question is to the observer and how difficult it would be for the same observer to deduce the high-level property from the low-level properties of the parts.<sup>40</sup>

This form of emergence theory is thus compatible with ontological reductionism. It is compatible because when it is said that a property is emergent, it is done for epistemological and practical purposes. There is still some reluctance when it comes to claiming that epistemological emergence is reducible. There are philosophers that claim that emergent properties arise out of lower-level processes, but at the same time claim that the results are novel and unpredictable due to being computationally irreducible.<sup>41</sup> That means that they seem to maintain the claim of ontological reducibility of the emergent properties, while denying that it is possible to actually do it in practice.

Those complexities aside, I will assume the succinct definition of epistemological emergence that it put forth by Michael Silberstein and John McGeever: *“A property of an object or system is epistemologically emergent if the property is reducible to or determined by the intrinsic properties of the ultimate constituents of the object or system, while at the same time it is very difficult for us to explain, predict or derive the property on the basis of the ultimate constituents. Epistemologically emergent properties are novel only at a level of description.”*<sup>42</sup>

The appeal to emergent properties then becomes an appeal to something that is ultimately an epiphenomenon, a practical short-hand for describing complex physical processes. This is a view of emergence theory that is essentially instrumental, emergentist explanations are utilized because they are helpful, not because they represent reality.

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40 Chalmers, David J., Strong and Weak Emergence, *The Re-Emergence of Emergence: The Emergentist Hypothesis from Science to Religion*, edited by Philip Clayton and Paul Davies. p.251

41 Bedau, Mark A. and Humphreys, Paul, *Emergence: Contemporary Readings in Philosophy and Science*, Massachusetts Institute of Technology, 2008. p.16

42 Silberstein, Michael and McGeever, John, *The Search for Ontological Emergence*, *The Philosophical Quarterly*, Vol.49, No.195, 1999. p.186

### 3.2.2: Ontological emergence

In contrast to epistemological emergence, ontological emergence postulates that the novel outcomes of the complex processes that we refer to as emergent properties are not just novel at the level of description. Ontological emergence views those novel outcomes as novel at the level of ontological significance. This view has implications, namely that during the process of cosmic evolution new levels of reality emerge. These levels have genuine causal efficacy and in some way brings new levels and forms of causality into existence, a top-down causality where the new emergent whole exerts causal efficacy upon the parts that constitute it.

The questions that arises from this is: How do we conceive of this top-down causality? And how do we determine when such top-down causality has emerged?

One way to determine when such emergence has taken place is when we can say that the parts that constitute the system in question behave in a way which they would not behave in isolation, in the absence of the interactions that constitute the system.<sup>43</sup> The question of how we conceive of this top-down causality is far more complex. It is more complex because emergence theorists tend to distinguish between different orders of emergence, each with more complex causal patterns. Peacocke refers to Terrence Deacon's subdivision of emergent phenomena into three sub-categories, first, second and third order of emergence.<sup>44</sup> These different orders refers to emergence of varying complexity, third order emergence being the most complex variety:

1) **First order.** *Distribution relationships among micro-elements determine statistical dynamics, which produce the higher-order collective properties. An example is the statistical properties of large aggregates of water molecules. These emergent phenomena are typically synchronic.*

2) **Second order.** *Spatially distributed re-entrant (i.e. feedback) causality allows microstate variation to amplify and influence macrostate developments, leading to progressive amplification of microstate influences, increasing divergence and decreasing predictability-macro-relationships undermine, constrain, and bias micro-relationships. Examples includes snow crystal growth, chemical networks (the Zhabotinsky reaction), biochemical cycles (glycolysis), and chaotic and self-organizing (autopoietic) systems. These emergent*

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43 Peacocke, Arthur, *Emergence, Mind and Divine Action: The Hierarchy of the Sciences in Relation to the Human Mind-Brain-Body, The Re-Emergence of Emergence: The Emergentist Hypothesis from Science to Religion*, edited by Philip Clayton and Paul Davies. p.262

44 Ibid. p.262-263

*phenomena are typically diachronic, developing in time, with symmetry-breaking.*

3) **Third order.** *Causality is distributed across time as well as space via memory (i.e. re-presentation of ensemble properties in properties of ensemble elements). The result is a progressive amplification of adaptation and increasing divergence, complexity, and self-organization-a 'self-referential self-organization'. Specific historical moments can exert a cumulative influence over the entire causal future of the system. Third order emergence inevitably exhibits a developmental and/or evolutionary character; it involves an amplification of global influences on the parts, but also redundant 'sampling' (= 'natural selection') of these influences. Whereas second-order emergent phenomena exhibit locally and temporally restricted whole-to-part influences, third-order evolutionary emergent phenomena can exhibit amplification of these effects as well. The key example is the evolution of living organisms.<sup>45</sup>*

The question then becomes whether causality is the correct term for describing these top-down relationships. Causality generally is associated with efficient causality, which again is associated with linear chains of causes in time. As we have seen from the existence of the different orders of emergence, the top-down relationships can become more complex than a mere linear chain of events. Peacocke thus suggests that the better term to describe these relationships would be the more general term *determinative influences*<sup>46</sup>. The distinct feature of ontological emergence is the ontological reality of the emergent properties. What defines the real in this case is causal efficacy. If the emergent property is necessary to fully describe the system, then the property represents a level of reality. That is, the emergent property is not epiphenomenal, it is not a short-hand for describing what is in principle describable by appealing only to the lower-level physical entities and processes that constitute the system. Ontological emergence is thus incompatible with ontological reductionism. If reductive methods are incapable of fully describing a system, then it is insufficient both as an ontology and as a methodology. That is not to say that reductionism is not a useful methodology and an important part of the scientific method.

### **3.3: The relevance of ontological emergence for theology**

Philip Clayton's theological model for understanding divine action today presupposes the

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<sup>45</sup> Ibid. p.263-264

<sup>46</sup> Ibid. p.264

reality of ontological emergence.<sup>47</sup> Ontological emergence according to Clayton makes two claims: “*First, new things emerge in natural history, not just new properties of some fundamental things or stuff; and, second, these emergent things exercise their own types of causal power. Such “downward causation” occurs at many different levels in nature.*”<sup>48</sup> This affirmation of downward causation is of central importance when considering emergence theory as a fruitful theoretical bridge between the natural sciences, metaphysics and finally theology. If ontological emergence is real, it means that the evolutionary unfolding of the universe involves the introduction of new forms of existence. Cosmic evolution has, given the theory of ontological emergence, unfolded in such a way that life emerged from non-living matter and self-awareness and consciousness emerged from biological complexity, neurological complexity. It is the emergence of the human person, who possesses a unity of being and consciousness, that is most relevant for the theology and the model for divine action presented by Clayton. This step in the evolutionary unfolding of the universe has given evolution another dimension, namely cultural evolution. Cultural evolution and biological evolution can be mutually reinforcing each other, biological complexity enables the emergence of language and the development of complex languages stimulates the evolution of neurological complexity.<sup>49</sup> It can be imagined then that the theological object is also an emergent level of the evolution of the universe. The philosopher Samuel Alexander (1859-1938) proposed that God is the emergent property of spirituality and that God simply is the universe achieving a form of self-awareness.<sup>50</sup> Clayton opposes this view and rather argues that God is a supra-personal reality, he is skeptical of this model of God that has a conception of the divine as “*a bundle of emergent properties*”<sup>51</sup>. Clayton's use of an emergence analogy to speak of the divine seems to be a bit incoherent at this point, if it is not supplemented by other metaphysical arguments that further specify the nature of this analogy. He speaks of the divine as being supra-personal and he uses analogies from emergence theory to justify this claim. He argues that a higher level of spiritual reality would likely have to have higher forms of causality associated with it. He asks: “*So, if emergence leads us to speak of a higher kind of agency than our own, what kind of agency might it be? [...] Is it not more reasonable to conceive of the religious object, the divine, as everything that human persons are – and presumably infinitely more?*”<sup>52</sup> He says this as a response to the argumentation from thinkers

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47 Philip Clayton uses the term 'Strong emergence'

48 Clayton, *Adventures in the Spirit: God, World, Divine Action*, p.73

49 *Ibid.* p.91

50 *Ibid.* p.95

51 *Ibid.* p.97

52 *Ibid.*

like Samuel Alexander, who postulates that there might be an emergent spiritual reality in the universe, that is not necessarily personal or a unified being. The problem with the analogy that he uses to argue against Samuel Alexander is that on the one hand he uses emergence theory to argue that the higher spiritual level of the universe ought to have a more sophisticated form of causality than us, and thus being supra-personal rather than non-personal. The problem is that Clayton wants to oppose that the divine is an emergent level of reality in the unfolding of the universe: “..an emergent thinker can hold (as I do) that God was present from the very beginning as the Ground of all things, and that the essential divine nature remains unchanged throughout cosmic history.”<sup>53</sup>. The analogy based on emergence theory places the divine on the wrong side of the arrow of time. If God is not an emergent reality, but rather a ground of being and thus precedes the universe both in time and logically, then it seems incoherent to argue against Samuel Alexander by using analogies from emergence theory. Rather, that God precedes the universe and is supra-personal must be argued from metaphysics rather than from emergence theory if one wants to oppose the view that God is a reality that emerges from the unfolding of the universe. Philip Clayton does provide metaphysical arguments for this, but this analogy still seems problematic in the sense that it does not seem to achieve what Clayton wants it to. His analogy is limited to being an argument against the view that emergent spiritual reality of Alexander is a non-personal and non-unified reality whose forms of causality are lower than the forms we know from proposed biological emergent realities. If one maintains that God precedes the universe and thus is not, at least in his essential nature, merely an emergent spiritual reality in the universe, then what is the role of emergence theory in forming a theology in open dialogue with current cosmology of the natural sciences? This leads to a conception of God having two natures, a dipolarity of natures. By this it is meant that God possesses two natures: One essential nature that precedes creation and which is not in any way emergent from the evolutionary unfolding of the universe, but rather the ground of its existence. And one consequent nature that emerges from the relationship between God and the world as it evolves. This differs from a more traditional conception of God, who has one nature and whose relationality is both internal (i.e. the relationship between the three persons in trinitarian theology) and eternal. The doctrine of the dipolarity of God proposes a divine reality that is both the necessary ground of being and the “*Ground of emerging processes and as responsive to the entities that emerge within those processes.*”<sup>54</sup> The relevance of emergence theory to theology is that we can conceive of one

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53 Ibid, p,102

54 Ibid. p.104

of the natures God, the consequent nature, as the Ground of the emerging realities and the one who relates to these realities according to their levels of complexity and causal capacities.<sup>55</sup> From here Clayton wishes to espouse a dipolar panentheistic doctrine of God.

### **3.4: An Eastern Orthodox interlude:**

Before I look at Clayton's panentheistic model, which is a model that is philosophically informed primarily by modern thought, it must be noted that there are panentheistic theologies in classical forms of Christianity as well. In this sub-chapter I will present a brief overview of an Eastern Orthodox and patristic way of conceiving God panentheistically. This will achieve a couple of things: The variation of forms of panentheistic thought will be more apparent and it will show that classical Christian thought is not one where there is an absolute separation between God and the world. This is not to say that there is not a strong emphasis on God's transcendence, this is however true in Clayton's modern panentheism as well, as we will see below. Finally, looking at a classical panentheistic theology<sup>56</sup> might give us an interesting background which allows us to see how our modern scientific cosmology as well as shifts in modern philosophy might have inspired a shift in how theologians conceive of God panentheistically. The panentheistic model I will look at is at the center of Eastern Orthodox theology, it is the theology of Maximos the confessor (580-662 AD) , further developed Gregory Palamas (1296-1357 AD). We have seen that in Clayton there is a dipolarity of God, with a necessary ground of being as well as a consequent nature which is the ground of emergent processes and is responsive to the entities that emerge in the process of creation. There is an analogous concept in the Eastern Orthodox conception of God, albeit with important differences. The important part that I want to communicate in this brief sub-chapter is that it might be too simplistic to say that classical theology, which is a label that covers a multitude of different theologies, only speaks about God using one unchangeable essence or nature. In the Eastern Orthodox tradition there is another distinction within God, that could be said to be analogous to the dipolar conception of God found in Clayton. *“Alongside this Logos-logoi model, other Greek Fathers use a second approach, not contrary to the first but complementary: they speak in terms of God's transcendent essence (ousia) and of his immanent*

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55 Whether we can talk about God as acting and how God acts and relates to creation is the topic of chapter 4

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The term panentheism was not explicitly used by these classical theologians, but their theology fits the label, at least if we add qualifying terms.

*energies or operations (energeiai).*<sup>57</sup> There is a distinction between God's transcendent essence and God's immanent energies, this would then be analogous to the necessary ground of being and the consequent nature of God in Clayton's theology. There are however some very significant differences between these dipolar conceptions of God. The immanent energies of God, according to Eastern orthodox theology, are uncreated "*The energies of God are created only inasmuch as they inhere in the created world. But when regarded as God's presence in each thing – as the divine "predetermination" or "preconception" concerning that thing – they are not created but uncreated.*"<sup>58</sup> The immanent energies are thus unlike the consequent nature of God in the sense that they exist prior to creation.<sup>59</sup> In Clayton's emergent panentheism, the consequent nature of God is relational and changing. The world, as it exists within the being of God in the consequent nature, is a novel unfolding. The difference between the Eastern Orthodox conception of God as having an essence and uncreated energies and Clayton's dipolar God with a necessary ground of being as well as responsive ground of emergent processes can be viewed in light of the difference of cosmology in which these different conceptions arose. The Eastern Orthodox conception of God comes out of the patristic thinkers, who were influenced by the philosophy, and by implication the cosmology, of their day. I think it can be said that their conception of God's presence in each thing is influenced by a more static conception of reality compared to our cosmology that is inspired by evolutionary thinking, both cosmic and biological. The divine energies in Eastern Orthodox theology are uncreated, they are the predetermination and preconception of the thing that participates in them. The essence of those things can thus be seen as preexistent, in some sense the energies of God existed before creation. This is not the case with Clayton's ground of emergent processes in God. This pole of God did not exist before creation, it is not uncreated. For Clayton, this pole<sup>60</sup> of God emerges in creation, in God's responsiveness to the created world. In this sense, the ground of emergent processes in Clayton's theology is not uncreated, it emerges as the evolution of the cosmos unfolds. The ground of emergent processes in Clayton can thus be seen as a more dynamic analogous concept to the Eastern Orthodox concept of divine energies. I would argue that the Eastern Orthodox conception of

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57 Ware, Kallistos, *God Immanent yet Transcendent : The Divine Energies according to Saint Gregory Palamas, In Whom We Live and Move and Have Our Being: Panentheistic Reflections on God's Presence in a Scientific World.* Edited by Philip Clayton and Arthur Peacocke. Wm. B. Eerdmans Publishing Co, 2004. p.160

58 Ibid.

59 The relationship between the primordial and consequent nature in God, whether the consequent nature exists prior to creation and, if it does, in what way will be discussed more below

60 Using the term "pole" in relation to the Eastern Orthodox is ultimately inaccurate, the similarity is analogous at best.

divine energies fit better with a more static cosmology, where the world in some sense came to be in a form that resembles the present state of it, where each thing participates in what it is by participating in the divine energies. Whereas in Clayton's dipolar panentheism, a thing is what it is in cooperation with God. It participates in God, who is the ground of the unfolding emergent processes, but the things become what they are through their own creative power, although guided by God.<sup>61</sup> The created things then do not participate in uncreated energies, they participate in God and God encapsulates the creative power of the things. It could be argued that this fits better with an emergent evolutionary view of the world, where there is genuine novelty in the unfolding creation, what becomes is not predetermined by uncreated energies in God, but it participates in God by participating in what Clayton calls the ground of the emergent processes.

### **3.5: Panentheism**

Panentheism is a way of conceiving of the relationship between God and creation. The doctrine of panentheism will be the final theoretical ground concept that is necessary for discussing Clayton's model of divine action in light of our modern scientifically informed cosmology, and this theoretical ground is so close to the actual problem of divine action that it should be considered part of the solution proposed by Clayton's model.

#### **3.5.1: From classical theism to panentheism**

Theism is a general label that signifies the belief in one or more gods. To further specify the content of this label, we add qualifying terms to it. Ancient Greece for example was a polytheistic society, they believed in a pantheon of gods, multiple powerful beings who influenced the natural world as well as the world of human affairs. In the biblical accounts there is a progression from henotheism to monotheism. Henotheism is a form of theism that recognizes the existence of multiple gods, but reserves worship and allegiance for one, Yaweh in the case of the Israelites.

In the biblical accounts there are also elements of what Clayton calls radical monotheism. He refers to Isaiah 45:22<sup>62</sup> as a prime example of this.<sup>63</sup>

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61 Clayton's panentheism is relational panentheism. See 3.5.1 and 4.4 for the varying ways of locating the creative power either in the thing, God or a combination.

62 "Turn to me and be saved, all the ends of the earth! For I am God, and there is no other"

63 Clayton, Philip, *God and Contemporary Science*, Edinburgh University Press, 1997, p.85

The term panentheism was coined by the German idealist Karl Friedrich Krause (1781-1832). While there was no concept by that name before Krause coined it, central concepts and ideas that belong in under the term were derived from earlier thinkers. It was the idea that creation occurred within God in Nicholas of Cusa's thought, due to his concept of God as the infinite in the sense of a circle whose center was everywhere and circumference was nowhere. The other revolution in thought was in "*Descartes's replacement of the scholastic notion of infinitude with a participatory one*".<sup>64</sup> These ideas or intuitions hinted at a conception of God where the world, as finite, existed within or participated within God, who is the infinite. These intuitions also suggests that God exceeds the world, as the infinite exceeds the finite while containing it, hence a panentheistic rather than a pantheistic conception of God. However, these preliminary thoughts can be rather vague and ambiguous, and this becomes more evident in a dictionary definition of panentheism: "*the belief that the being of God includes and penetrates the whole universe, so that every part of it exists in Him*"<sup>65</sup> The question becomes: in what sense does the world exist in God? What does it mean that God penetrates the universe? These questions quickly branch out into other questions whose answers will have important influence on other theological questions. Panentheism can be divided into two different types: "*emanationist*" and "*relational*" panentheism.<sup>66</sup> The former is a form of panentheism where the world emanates from God, and thus is an expression of God's creativity. This is similar to neoplatonic emanation, where all the lower levels of reality flows inevitably from the being of the One. According to this perspective, the creativity of the world is the creative expression of God. This is contrasted to relational panentheism, the essential difference is that the world maintains its creative independence. The creativity in the world is not simply an emanation of God's own creativity, the world has its own creative expression, but it is panentheistically related to God. An example of this would be process theology: In process theology creativity is an metaphysical ultimate principle, a brute metaphysical fact that describes how all actual occasions operate, including God who is the ultimate and everlasting actual entity who exemplifies or actualizes this abstract ultimate as its ultimate accident.<sup>67</sup> This is important because then the actual occasions that make up the world operate

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64 Bierley, Michael W., Naming a Quiet Revolution: The Panentheistic Turn in Modern Theology, In Whom We Live and Move and Have Our Being: Panentheistic Reflections on God's Presence in a Scientific World.

Edited by Philip Clayton and Arthur Peacocke. Wm. B. Eerdmans Publishing Co, p.2

65 Oxford Dictionary of the Christian Church

66 Bierley, Michael W., Naming a Quiet Revolution: The Panentheistic Turn in Modern Theology, In Whom We Live and Move and Have Our Being: Panentheistic Reflections on God's Presence in a Scientific World.

Edited by Philip Clayton and Arthur Peacocke. p.5

67 Whitehead, Alfred North, Process and Reality: An Essay in Cosmology, Corrected edition, edited by David

according to their own creativity and thus the creativity of the world is its own, even though all actual occasions are related to God and is influenced by God, persuasively rather than coercively.<sup>68</sup>

The historical occasion for the move from classical theism to panentheism may have occurred in parallel with the shift from a substance oriented ontology to a relational ontology.<sup>69</sup> The substance oriented ontology was more appropriate for a the more static world view of pre-evolutionary cosmology. With the advent of the theory of evolution which revealed that the lifeforms were in a constant process of evolution and in a constant reciprocal relationship both with each other and with their environment, a shift towards a relational ontology seems more accurate in order to describe a world that is more dynamic than previously anticipated. There are however substance metaphysics oriented forms of classical theism today that attempt to address this change in cosmology by appealing to a more dynamic interpretation of Thomistic metaphysics. A Thomistic thinker like W. Norris Clarke attempt to describe the dynamism that is evident from our modern scientific cosmology in terms of essential change. The problem becomes determining what is the underlying substance in something that undergoes an essential change of this sort. Clarke argues that there must be some formless principle that is capable of receiving a new form.<sup>70</sup> The problem with this way of thinking is that it ends up with postulating “quantum leaps” in the evolution of the cosmos. By that I mean that you can talk about accidental change only so far before you suddenly, and I think somewhat arbitrarily, have to postulate the presence of a new form. This leads to problems when thinking about the major transitions in the cosmic evolutionary process, such as the emergence of life and the emergence of minds. Clarke inevitably ends up with appeals to the highly questionable intelligent design movement with its appeals to irreducible complexity, especially when talking about the special creation of the human soul.<sup>71</sup> Of course, emergence theory would also postulate the presence of new forms and the transitions of forms. However, emergence theory maintains that these transitions of forms comes from “below,” they are

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Ray Griffin and Donald W. Sherburne, *The Free Press*, New York, 1978. p.7: “*In all philosophic theory there is an ultimate which is actual in virtue of its accidents. It is only then capable of characterization through its accidental embodiments, and apart from these accidents is devoid of actuality. In the philosophy of organism this ultimate is termed creativity; and God is its primordial, non-temporal accident.*”

68 Ibid. p.344. Whitehead uses the term 'lure for feeling' for what I have labeled as 'persuasion'

69 Bierley, Michael W., *Naming a Quiet Revolution: The Panentheistic Turn in Modern Theology*, In *Whom We Live and Move and Have Our Being: Panentheistic Reflections on God's Presence in a Scientific World*. Edited by Philip Clayton and Arthur Peacocke. p.13

70 Clarke, W. Norris, *The One and the Many: A Contemporary Thomistic Metaphysics*, University of Notre Dame Press, 2001. p.139-149

71 Ibid. p. 255-259

constituted, if not reducible to, by lower levels of reality. When Clarke argues for the special creation of the human soul, he essentially postulates the arrival of a new form from “above”, which disrupts the continuity that is hinted at in the depiction of the unfolding of complexity in the theory of evolution.

### 3.5.2: The panentheism of Philip Clayton

Philip Clayton argues that the history of modern thought “*has been a continual attempt to find a metaphysics adequate to express what is meant by “personal being”*”<sup>72</sup> By this he means that the philosophers of the modern age began to think of what it means to be a person in the world. And if God was a personal being, this meant conceiving of what it would mean for an infinite God to interact with the world God created. This meant re-conceiving personhood as a subject rather than as a substance. This and the conception of God as the infinite that contains the finite forms the philosophical backdrop for Clayton's panentheism. Clayton sees Spinoza as the culmination of the substance tradition. Spinoza took the Cartesian definition of substance to its logical limit. Descartes defined substance as that “*thing which exists in such a way as to depend on no other thing for its existence. And there is only one substance which can be understood to depend on no other thing whatsoever, namely God.*”<sup>73</sup> Spinoza took this notion on substance and claimed that it follows that there is only one substance, namely God, and all other things are modes of that one substance which has infinite attributes, both thought and extension were conceived of as different modes of this one substance. This differed from Descartes, who famously postulated two types of substances, mental (*res cogitans*) and extended substances (*res extensa*).<sup>74</sup> This one substance metaphysics of Spinoza is a pantheistic metaphysics, the world and God are one substance, God was the “*interlocking whole that Spinoza called God or Nature.*”<sup>75</sup> Clayton argues that the move from Spinoza's pantheism to panentheism must come from realizing the failure of Spinoza to conceptualize a center of activity, a transcendental unity of apperception.<sup>76</sup> This center of activity cannot itself be identical to the world as a whole, as the Spinozean God, it must be an entity that transcends the world. If we add this insight of a necessary center of activity, then we are transitioning from a metaphysics of substance to a metaphysics of subjectivity. We arrive at a panentheistic

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72 Clayton, Philip, *Adventures in the Spirit: God, World and Divine Action*. p.123

73 Descartes, *Principia* 1.51.

74 Clayton, Philip, *Panentheism in Metaphysical and Scientific Perspective, In Whom We Live and Move and Have Our Being: Panentheistic Reflections on God's Presence in a Scientific World*. p.80

75 *Ibid.*

76 *Ibid.*

conception of God where God includes the world within himself while also transcending it as the subject that conceives the world. There is in this way of thinking an emerging identity between God's knowledge of the absolute and the being of the absolute. An important part of Clayton's panentheistic doctrine of God is that God is a being who can exist separate from the world.<sup>77</sup> The world does not exist by necessity, that is the world is not co-eternal with God as in orthodox process theology<sup>78</sup>, nor does the world emanate from God by necessity as in neoplatonic thought. Clayton wants to affirm that God has freely decided to create the world, at the same time he wants to preserve the intimate relationship between God and the world of panentheism. He uses the analogy of the relationship between ourselves and our bodies as an image for how God is related to the world, but God pre-exists the world<sup>79</sup>, as a necessary being that does not depend on the existence of a world. The panentheistic image must be further specified. When it is said that the world is located within the divine, it easily can be misunderstood as a sort of spatial relationship, as in the finite world literally existing within the infinite God. Clayton specifies what he means when he claims that the world is contained within God: *"It's true to speak of the world as "contained in" the divine-but only in the sense that the divine is omnipresent within it, and in the sense of ontological dependence: no finite thing would exist at the next moment were it not for the continuing divine concurrence."*<sup>80</sup> This is a relational form of panentheism. The world does not directly emanate from and in continuity with God, that would be closer to a more literal understanding of the panentheistic image of "contained within". Rather God is omnipresent within the world, relating to all finite things as their ground of existence. Clayton has a strong emphasis on the contingency of the world, by saying that all finite things only exist at any moment through *"continuing divine concurrence"*. The finite world is thus entirely dependent upon the intimate relationship with God, it only has existence through participation in the infinite God.

This brings me to a closely related issue, namely that of creation. Clayton is somewhat unique in the world of process philosophy inspired theologians in that he affirms a form of *creatio ex nihilo*. As I have touched upon, Clayton affirms that God freely decided to create the world. This act also involves a "decision" that will be important when discussing his model of divine action, and that is the decision of kenosis. What Clayton affirms is a form of kenotic creation, an extension of the doctrine of kenosis of Christ in Phil 2:5-9 to the doctrine of creation. The

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77 Clayton, Philip, *Adventures in the Spirit: God, World, Divine Action*, p.148

78 In process theology there are cosmic epochs, there has always been a world in the sense of there being other actual occasions than God.

79 *Ibid.* p.148-149

80 *Ibid.* p.150

essential idea of kenotic creation is that *“creation is itself a kenotic, relational act. God freely limited God's infinite power in order to allow for the existence of non-divine agents.”*<sup>81</sup> This self-limitation of God's power is seen as God emptying himself of qualities that God would otherwise have. This differs from more orthodox process theology, that claims that God's limited power is a metaphysical necessity due to the ultimate principle of creativity, but for Clayton's pantheism it is a free choice by God. A fair question would be: Why would God limit his power in order to create? The answer Clayton gives is similar to that of other process theologians. The difference is that for Clayton, the reason is motivated by God's own choice, God is not bound by metaphysical necessity. The reason for the self-emptying when creating the world is that Clayton wants to affirm that God is essentially love, a motivation no doubt motivated by 1 John 4:8, and Clayton claims that such love *“is most fully manifested in real relatedness to agents who are “other” to God”*<sup>82</sup> and those agents must be *“real agents outside of God's self-not automata who acknowledge the deity because they must, but agents who freely love God-only then would it be clear that the divine relatedness is more than self-love.”*<sup>83</sup> This means then that all finite agents possess its own creative power, God cannot coerce a finite agent towards a certain result. Whether all finite things are agents is another question, one that I will return to in chapter 4 and 5.

## CHAPTER 4: DIVINE ACTION

### 4.1: Introduction

This chapter will address the issue of talking about divine action in light of the developments in cosmology due to modern science. This discussion will be based on the theoretical frameworks presented in the previous chapters. A view of the evolving universe that is informed by emergence theory, the ontological variant, which will be important when trying to understand divine action in light of causality. The other theoretical framework is the theological framework of pantheism, which concerns the relationship between God and the world. These two are obviously closely related in that one concerns ways of understanding causality between different levels of reality and the other concerns the relationship between the ultimate level of reality and all other levels. The former is a framework from the philosophy of science, while

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81 Ibid. p.182

82 Ibid. p.181

83 Ibid.

the latter is from theology and the philosophy of religion.

I will start this chapter with a brief discussion of naturalism and determinism. Then I will move on to the main part of the chapter, analyzing Philip Clayton's model for how we can understand divine action in light of a theory of causality informed by emergence theory and panentheism.

#### 4.2: Naturalism and determinism

When considering the possibility and eventual nature of a conception of divine action, we must consider our understanding of nature as a system as well as our understanding of causality. Among the important concepts in natural science are the principle of causal closure and the conservation of energy. The principle of causal closure claims that nature as a system is closed, there can be no influence from outside. The principle of the conservation of energy claims that the total energy of the universe remains constant, new energy does not arise, nor does energy disappear, energy is simply transformed from one form into another. From this follows the doctrine or presumption of naturalism, the presumption that states *«for any event in the natural world, that its cause is a natural one as opposed to a supernatural one.»*<sup>84</sup> The last immediately relevant principle or doctrine is the doctrine of physical determinism, which claims that *«the physical state of the world at a given time determines the physical state of the world at all future times [...] All versions of determinism accept the ontological thesis that the state of the universe up to and including the present time  $t$  determines the universe's state in subsequent moments.»*<sup>85</sup> If all these principles are granted, then we get a doctrine of nature which states that nature is a closed system, closed off from any conceivable outside influence<sup>86</sup>, with a constant level of energy and in which every effect follows by necessity from its cause(s). This is a view of nature as a closed and fully deterministic self-operating system, it would render the idea of divine action impossible since the idea of a God, that is at least other than the world in some aspects, that could act on this world in any way would be incoherent with the principles that describes this view of nature. Based on this we have to question one or more of these principles if we are going to be able to speak about divine action in light of our scientific cosmology today. Quantum mechanics is a theory that might appear tempting to solve this problem, since quantum mechanics opens up for the possibility

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84 Clayton, Philip, *God and Contemporary Science*, p.171

85 Clayton, Philip, *Adventures in the Spirit: God, World, Divine Action*, p.187

86 This by itself would not rule out the existence of a deistic God who created the universe as a self-operating machine, only that God could intervene on the world.

of indeterminacy at the fundamental level of nature. Quantum events are indeterminate in principle due to the Heisenberg uncertainty principle.<sup>87</sup> To suggest that God might act upon the world at the quantum level and have effects on macrophysical structures through the indeterminacy at the quantum level, which is then masked as quantum indeterminacy, can seem tempting. Philip Clayton warns against this temptation with good reason. There is good reason to think that singular quantum events, at least according to the Copenhagen interpretation, indeed are ontologically indeterminate. The problem with this view arises when you look at systems of multiple quantum events. While the singular events themselves are likely<sup>88</sup> ontologically indetermined, the outcome of a system of quantum events is predictable using stochastic laws. Clayton emphasizes that stochastic laws are still laws and argues that while the singular events may be indeterminate, the systems as a whole are physically deterministic due to their behavior being describable by these stochastic laws.<sup>89</sup> Clayton's solution given the predicaments dictated by these principles that seem so central to natural science and by implication to the cosmology that is implied by the theories of science, is to come up with a new theory of causality. His new theory of causality is built on emergence theory and through this theory of causality and Clayton's pantheism he suggests a model for understanding divine action that is compatible with the cosmology that is implied by the natural sciences. First I will look at Clayton's theory of causality and then move on to his attempt to integrate this theory with his pantheism into an emergent pantheistic framework and then finally how he sets up the philosophical theologies of Alfred North Whitehead and Friedrich Schleiermacher in a dialogue with each other. He hopes to offer a theory of pantheistic participatory agency informed by Schleiermacher and then offers what he calls a «*Whiteheadian correction*»<sup>90</sup> to supplement it.

#### **4.3: A theory of emergent causality**

As we have seen in the previous sub-chapter, there are multiple challenges for a theology of divine action to overcome. Clayton seeks to overcome these challenges by constructing a new theory of causation. His new theory of causation makes two important presuppositions: «*The argument presupposes that dualism is mistaken and then seeks to show that, nonetheless, not*

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87 The principle that states that we are unable to know complementary variables of fundamental particles simultaneously.

88 According to the Copenhagen interpretation. I am obviously not qualified to adjudicate between the various interpretations of quantum theory.

89 Clayton, Philip, *Adventures in the Spirit: God, World, Divine Action*, p.189

90 *Ibid.* p.214

*all causes are physically reconstructable causes.»*<sup>91</sup> Clayton seeks to expand the notion of causality beyond the mechanistic conception. He believes that emergence theory reveals a world that exhibits multiple forms of causality and that the emergentist view of the world is the key to understand how divine action might be present in the world, at least the key to making the idea of divine action coherent with contemporary scientific cosmology. Emergence theory depicts an unfolding evolutionary world where new levels of reality emerge into existence and exerts holistic or systematic influence upon the parts that constitute it.<sup>92</sup> If this is a credible view of the world, then it is an understanding of the world that allows for new forms of causality to emerge into existence. Clayton assumes at least four major transitions in the natural world that clearly exhibits the emergence of new levels of reality that demand their own forms of causality: «1) *Quantum physics to macrophysical systems and chemistry*, 2) *chemistry to complex biological organisms and ecosystems*, 3) *the brain and central nervous system to the phenomena of consciousness or «mind»*, and 4) *the emergence of spirit within the natural order, including the question of its ultimate nature and origin.»*<sup>93</sup> Clayton particularly emphasizes the emergence of life and consciousness as emergent features that can only be understood if they are viewed within the broader conception of causality suggested by emergence theory.<sup>94</sup>

It is particularly the conception of mental or psychological causes that will play an important part in Clayton's theory of divine action, since mental causes are a form of causation that we experience every day and yet they prove very difficult to reduce to merely physical explanations, as in explaining the causal efficacy of our various conscious states and the reality of our self-consciousness using only the biochemical interactions of the brain. Consciousness and psychological or mental causes are thus a very vivid example that supports the need for a broader conception of causality. It is important to not interpret this need for a broader conception of causality as an argument for a dualistic conception of mind. Clayton is not arguing that the mind or soul is a reality that is separate from body, he is arguing that the mind or soul is an emergent reality that has causal efficacy, that it has «downward causation». Thus the human being does not consist of two entirely separate and distinct realities, body and mind, but the human being is a psychosomatic unit, a being that exhibits physical as well as mental causation.<sup>95</sup> When speaking about downward causation, it is important to note that it does not mean that there is only one direction of causation. When

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91 Ibid. p.190

92 This assumes the reality of ontological emergence. See chapter 3.2.2

93 Ibid. p.191

94 Ibid.

95 Ibid. p.195

conceiving of the human being as a psychosomatic unit, one has to understand a reciprocal relationship between the mental reality and its physiological constituents, the physiological and mental are closely connected. The important part for those that support the reality of ontological emergence and for Clayton's argumentation is that the mental reality has genuine causal efficacy of its own. Nor is this an example of emergent dualism, namely that the human being consists of the physiological level and then there is an emergent mental level. The human being is a complex reality operating at multiple levels of causality, the physical, biological and psychological levels. There are multiple levels of whole-to-part relationships in a human being, the mental level is one of many, even if the most complex, examples of such whole-to-part relationships and downward causation in the human being.<sup>96</sup>

With the human consciousness as an example of a phenomenon that needs a broader conception of causality in order to be explained as well as the need for the postulation of other emergent levels of reality, he has made the case for an understanding of causality that paints a more complex picture than the bottom-up only causation picture of reductionism. However, there is a difference in demonstrating the need for a broader and more complex notion of causality and describing the nature of this more complex causality. How are we to conceive of the downward causation of for example mental events in a human being? How can the intentions of a human agent actually influence the physiological constituents that form the necessary conditions for the mental events in the first place? Clayton wants to use the concepts of information and informational causality in order to propose an answer these questions. The appeal to informational causation as a way of conceiving of downward causation is similar to a recourse to formal causation, but it is a renewed conception of formal causation inspired by contemporary scientific descriptions of nature. Clayton points out that recent scientific work *«has interpreted biological structures (morphology) and the organism's interaction with its environment as a series of processes involving the storage, use, and exchange of information -a sort of cybernetic or semantic version of Aristotle's formal causes.»*<sup>97</sup> He argues that this pairing of information with causality has explanatory advantages that help us make sense of various examples of downward causation in nature, like for example epigenetics. As such, wholes or systems become an integral part of biological explanations. This helps Clayton understand mental causation. He argues that if a complicated system like the brain can constitute an emergent reality of mental properties, then these emergent properties can then in turn constrain brain functioning: *«Since most cognitive*

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96 The relatively new discipline of systems biology study the human body from such a holistic perspective, as an alternative to the purely reductionistic approach.

97 Ibid. p.199

activity concerns information retention, retrieval, and processing, it is natural to understand mental causation as involving the interplay of informational and biological causes.»<sup>98</sup> His argument then is that there can, in theory, be informational changes that have real downward causal efficacy, but that does not contradict the laws that describe the behavior of the lower level constituents. This view of mental causes, and emergent downward causation in general, is clearly influenced by the idea of emergent causality that is put forward by Terrence Deacon.<sup>99</sup> Terrence Deacon uses the metaphor of the function of the hole at the center of the hub of a wheel to explain the downward causal efficacy of emergence: «*The locus of self is, effectively, a negative mode of existence, that can act as an unmoved mover of sorts: a non-thing that nonetheless is the locus of a form of inertia -a resistance to change-with respect to which physical processes can be recruited and organized.*»<sup>100</sup> It is in these holes in hubs of the wheels, to continue Deacon's metaphor, that Clayton imagines that divine action might occur. Clayton imagines that divine action occurs in the mode of persuasion rather than coercion. God can in this view influence in the form of persuasion and preparation primarily on the level of mentality, and particularly on agents capable of a form of intentionality. Locating the realm of intentional divine action to the level of the mental has major consequences for how much we can coherently say that God can influence the world. If God is present as a formal cause in entities that are of a level of complexity that has allowed for the emergence of a mental reality, then it can become problematic to imagine God's role in the world prior to the evolution of biological structures sufficiently complex enough to constitute the emergence of a mental reality. Now I have briefly presented how emergence theory opens up room for divine action as a persuasive formal cause, at least in agents that possess sufficient biological complexity for the emergence of a mental level of reality. This emergent mental reality opens up for informational causality, which is a form of downward causation. This can occur in a way that does not break the laws that describe the behavior of the lower level constitutive parts of the system. Clayton has then argued that this emergent form of causality in theory opens up for the influence of a divine agent. He imagines that such an agent can at least persuade a creature with sufficient biological complexity to constitute the emergence of a mental reality by influencing the information level<sup>101</sup>, which can then, to paraphrase Terrence

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98 Ibid.

99 «*Terrence Deacon offers the clearest expression of the logic of scientific emergence available today*». Ibid. p.71

100 Deacon, Terrence, *Emergence: The Hole at the Wheel's Hub, The Re-Emergence of Emergence: The Emergentist Hypothesis from Science to Religion*, edited by Philip Clayton and Paul Davies. p.149

101 Clayton, Philip, *Adventures in the Spirit: God, World, Divine Action*, p.200

Deacon's, recruit and organize physical processes in the brain.<sup>102</sup>

So while emergence theory accounts for there being an opening in the scientific description of the world for causal influence from a spiritual reality. But emergence theory qua emergence theory says nothing about whether such a divine agent or spiritual reality actually exists, only that if it exists, then there is in theory room in the scientific cosmology to speak of the possibility of its influence.

The next central part of Clayton's model for divine action is a metaphysical and theological approach, that argues for the plausibility of the existence of a divine agent, this is where Clayton's panentheism becomes an important part of his model. His panentheism not only argues for the reality of this spiritual reality and argues for the existence of this reality before the creation of the world.<sup>103</sup> The combination of emergence theory and panentheism then becomes the foundation for his entire model of divine action. The next sub-chapter will present Clayton's panentheistic-participatory theory of agency.

#### **4.4: A panentheistic-participatory theory of agency**

Clayton's panentheistic-participatory theory of agency is built upon influence from primarily two sources, two sources that usually are not associated with each other: the theologian Friedrich Schleiermacher and the philosopher Alfred North Whitehead. Clayton wishes to use Schleiermacher as an influence in order to talk of God as a whole. Then he wishes to supplement this view by using Whitehead's conception of God and the God-world relation to talk about God as an agent. He notes that these two conceptions stand in dialectical tension, but insists that the two ideas are in tension rather than contradicting each other.<sup>104</sup>

If I am going to use Schleiermacher and Whitehead in order to construct a model of divine action and agency, I first have to look at their general views on agency. This is in order to understand their views on agency and how they might complement each other when held in a dialectical tension, I have to look at their ideas of the subject and subjectivity. Their different views on subjectivity is essential to understand how for example the human subject relates to a divine subjectivity, the relationship between the divine and human subjectivity differs in Whitehead and Schleiermacher, due to the difference in their philosophical backgrounds.

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102 See footnote 95

103 Differentiating him from thinkers like Samuel Alexander who sees the divine or spiritual as an emergent holistic dimension of the universe.

104 Ibid. p.214

When describing the views of Whitehead and Schleiermacher in this sub-chapter, I will stick to Philip Clayton's interpretation of these thinkers. The reason is that it is his model for divine action that is the primary concern of this thesis. With that in mind it is how he uses insights from these thinkers in order to think about divine action that is most interesting, dealing with questions of interpretation of these thinkers would be a secondary concern.<sup>105</sup>

Clayton describes Whitehead's theory of agency by noting that “*Whitehead was a panexperientialist who used the resources of philosophical atomism and the doctrine of internal relations to construct his own account of agents*”<sup>106</sup> This brief and rich statement requires some unpacking. Panexperientialism is a variant of panpsychism. Panexperientialism is a term introduced by David Ray Griffin in his work on Whitehead's philosophy<sup>107</sup>, in order to prevent a possible misunderstanding of what Whitehead actually claimed. Panpsychism is a term that might suggest that all actual entities possess consciousness like human beings, which I think most thinkers finds absurd. Panexperientialism tries to prevent this misunderstanding by suggesting instead that all actual entities at least possess a degree of subjective experience. But even this is open to misinterpretation. Experience classically presupposes consciousness, it is therefore important to remember that for Whitehead: “*consciousness is the crown of experience*”, not the other way around. That is, consciousness is a highly complex form of subjective experience, only possible in a complex nexus of actual occasions with a dominant actual occasion.<sup>108</sup>

By referencing philosophical atomism and the doctrine of internal relations, Clayton is referring to two other central doctrines in Whitehead and these two are connected in Whitehead's thought. What Clayton calls philosophical atomism is called pluralistic realism by David Ray Griffin and it simply refers to the fact that in Whiteheadian metaphysics it is affirmed: “*that reality consists of a plurality of actual entities*”<sup>109</sup> The doctrine of internal relations emphasizes the other pole of Whitehead's the many and the one. The atomism affirms that there are indeed a plurality of actual entities. If we left it at that, it could sound

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105 In chapter 5 I will compare Clayton's model with that of more 'orthodox' Whiteheadians, since Clayton does distance himself from some very central Whiteheadian doctrines. I will therefore spend more time on expanding a bit about Whitehead in this chapter.

106 Ibid. p.207

107 Griffin, David Ray, *Reenchantment without Supernaturalism: A Process Philosophy of Religion*, Cornell University Press, 2001. p.97

108 Whitehead, Alfred North, *Process and Reality: An Essay in Cosmology*, Corrected Edition, edited by David Ray Griffing and Donald W. Sherburne. p.267: «*Also this character of experience suggests that consciousness is the crown of experience, only occasionally attained, not its necessary base.*»

109 Griffin, David Ray, *Reenchantment without Supernaturalism: A Process Philosophy of Religion*. p.117

similar to Leibnizian monadology. However, the doctrine of internal relations emphasizes that while there is a plurality of actual entities, an actual entity is a unique synthesis of the universe in all of its plurality. The actual entity, in its concrecence<sup>110</sup>, becomes what it is by internally relating to the many: “*The many becomes one and are increased by one.*”<sup>111</sup> Unlike the windowless monads of Leibniz, the actual entities of Whitehead have windows and become what they are by internally relating to past actual entities.<sup>112</sup>

From these doctrines, Clayton infers that agency in Whitehead is “*exclusively present-tense; once the synthesis is accomplished, the agent passes out of existence qua agent.*”<sup>113</sup> Friedrich Schleiermacher stands in another philosophical tradition. Clayton sees Schleiermacher as a thinker that thinks of agency in light of the idea of the synthesizing subject from German idealism.<sup>114</sup> In one sense this is similar to the Whiteheadian vision of the subject, the subject is a center of synthesizing activity in both Whitehead's philosophy and in German Idealism. The difference is that in German idealist thought, unlike in process philosophy, the synthesizing subject is not a momentous occasion. Clayton expresses this key difference when he writes about Schleiermacher: “In the background of his work stands Augustine's notion of the enduring subject or soul”<sup>115</sup> This leads to another difference between Whitehead's and Schleiermacher's theory of agency. For Schleiermacher, the agent or person becomes an enduring agent that exists over time while for Whitehead, what we call a person is a temporally ordered society of actual occasions.<sup>116</sup> This leads to a fundamental difference between Whitehead and Schleiermacher when it comes to their view of the subject, Clayton expresses it like this: “*For him, as for Kant, the whole of time precedes its division into moments, whereas for Whitehead temporal moments are primary.*”<sup>117</sup> The final difference between their theories of agency is found in Whitehead's panexperientialism. For Schleiermacher: “*agency is what makes human beings unique*”.<sup>118</sup> Whitehead's doctrine of panexperientialism challenges this assumption. Panexperientialism asserts that all actual

110 Whitehead's term for the becoming of an actual occasion. I will use concrecence and becoming interchangeably.

111 Whitehead, Alfred North, *Process and Reality: An Essay in Cosmology*, Corrected edition, edited by David Ray Griffin and Donald W. Sherburne. *The novel entity is at once the togetherness of the many which it finds, and also it is one among the disjunctive many which it leaves; it is a novel entity, disjunctively among the many entities which it synthesizes*. p.21: «.»

112 Past actual entities have perished in terms of subjectivity, but persists as objective data for new actual entities.

113 Clayton, Philip, *Adventures in the Spirit: God, World, Divine Action*, p.207

114 Ibid.

115 Ibid.

116 Griffin, David Ray, *Reenchantment without Supernaturalism: A Process Philosophy of Religion*, p.113-114

117 Clayton, Philip, *Adventures in the Spirit: God, World, Divine Action*. p.208

118 Ibid.

entities, whether they are electrons or human beings, possess subjectivity in the sense of self-determinative power. Human agency for Whitehead is only different in being a highly complex and evolved form of agency, the differences in agency is then ultimately a difference of degree. I will get back to this in chapter 5, since Clayton is skeptical of the doctrine of panexperientialism.<sup>119</sup>

After having this brief overview of how the theories of agency, with regards to finite agents, in Whitehead and Schleiermacher, it is time to look at how their theories of agency pertains to a divine and infinite agent. Concerning how God, as infinite agent, relates to finite agents, there are significant differences between Whitehead's and Schleiermacher's thought. When elaborating on the doctrine of internal relations in Whitehead's metaphysics, I noted how that in the becoming of each actual entity the many become one. This “many” in Whitehead's thought includes God. God is an element in the concrescence of each actual entity. Clayton writes on the influence of God in each actual occasion in Whitehead's thought, God is “*the initial object of desire*” *establishing the initial phase of each subjective aim.*”<sup>120</sup> This is a radical claim of divine action. For Whitehead, there is no question of whether God can be said to influence some events or beings in the world. Due to his doctrines of panexperientialism and internal relations, God is as we have seen a necessary element in all actual entities. God is an element in the concrescence of all actual entities, and in that sense divine influence is uniform in Whitehead's metaphysics. That can potentially be misunderstood if it is not qualified further.. While divine influence is indeed uniform in Whitehead's thought, it is also variable. “*The initial aim for any actual occasion “is toward that ideal possibility that would be best for that occasion, given its location and complexity.*”<sup>121</sup> The reason for the variability in the divine influence, in Whitehead's metaphysics, is thus the various complexity of the actual entity in question. More concretely, it would be correct to say that Whitehead assumes that God influences both electrons and human beings, and in that that sense it is uniform, but the kind of influence in these two extreme cases is not the same. Schleiermacher does not think that God constantly influences every thing. We noted earlier that Schleiermacher's theory of agency is more anthropocentric than Whitehead's. There is an intimate union between the finite human subject and the infinite God: “*Everything finite exists only through the determination of its limits, which must be cut out from the Infinite. Only in this fashion*

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119 Ibid. p.210-211

120 Ibid. p.209

121 Griffin, David Ray, Reenchantment without Supernaturalism: A Process Philosophy of Religion, p.147

*can a finite thing itself be infinite within these limits and formed on its own*"<sup>122</sup> This intimate union of finite agents with the infinite God in Schleiermacher becomes the foundation for the participatory part of Clayton's panentheistic-participatory theory of agency. This intimate union of the finite and infinite places ontological primacy on the infinite. The finite agents exist only contingently, they exist through their participation in the infinite God.<sup>123</sup> The challenge when conceiving of finite agents as participating in the infinite God, is to find a way of conceiving of how the agency of the finite agent really is the agency of the finite subject and not really the agency of the infinite God it participates in. This view could easily become a form of emanationist panentheism, as I discussed briefly in chapter 3.5.1, where the actions and thus the agency of the finite really becomes an expression of the creativity and thus the agency of the infinite God. Schleiermacher's solution is a paradoxical one. For him it is when you realize your connectedness with the infinite agency as the ground of your finite agency that you become realized as an individual finite agent with genuine agency: "*Paradoxically, in recognizing this dependence, one also recognizes that she is an individual who must act, and who is capable of acting, either consonant with the whole or in opposition to it.*"<sup>124</sup> There is then a dialectic between finite agency and the agency of God in Schleiermacher, if we overemphasize the part about the reality of finite agency, then we simultaneously are in danger of eliminating the reality of divine agency qua divine agent. Clayton argues that panentheism is only in place in a rudimentary form in Schleiermacher, and that panentheistic modification of his thought would be helpful. The rudimentary form of panentheism in Schleiermacher comes through in his idea of God as the world-soul (*Weltseele*).<sup>125</sup> Clayton wants to use this intimate union of the finite and the infinite to express his panentheistic-participatory theory of agency: "*Could one not say that, in the moment of apprehension, my spirit acts in harmony with the world-spirit; the world in this moment is Spirit's body, for Spirit permeates its muscles and its limbs as if they were its own?*"<sup>126</sup>

What Clayton then gets from Schleiermacher's theology is the intimate union between the finite and infinite, the ontological primacy of the infinite over the finite and the contingency of the finite upon the infinite. The finite agents owe their existence to the infinite, and in that sense they participate in the infinite. The challenge of this view has been the dialectical tension between locating the creative agency in either the finite agents at the expense of the

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122 Schleiermacher, Friedrich, *Über die Religion. Reden*, 1st edition, Philosophische Bibliothek vol.255. Cited by Clayton Philip, *Adventures in the Spirit: God, World, Divine Action*, p.212

123 Clayton, Philip. *Adventures in the Spirit: God, World, Divine Action*, p.212

124 Ibid.

125 Ibid. p.213

126 Ibid.

agency of the infinite agent, or locating it in the infinite agent at the expense of the agency of the finite agents.

This challenge leads to the final specification of Clayton's model of divine action, after that I will offer a brief description of how this model could be understood in relation to the concrete world. Clayton argues that Schleiermacher's one sided focus on the ultimate as the whole as infinite in relation to the parts as finite leads to a truncation of the agential dimension of the ultimate.<sup>127</sup> This truncation consists of it becoming difficult to imagine how God, as the ultimate, could offer specific ideal to specific agents at specific times. Clayton understands Schleiermacher's ultimate as only being able to communicate such ideals more broadly. This leads Clayton to what he refers to as “*a crucial Whiteheadian correction*”<sup>128</sup> to his model. This Whiteheadian correction is a modification to his model that flows forth from relatively basic process metaphysics. His goal with this correction is to conceive of a God “*who is an agent with intentions, can intend specific goods for specific individuals at specific moments.*”<sup>129</sup> This is a goal that process metaphysics can help with conceptualizing. I have briefly looked at Whitehead's doctrines of internal relations and panexperientialism, these doctrines are helpful for being able to conceptualize God as someone who can influence specific agents with specific ideals at a specific time.

In process philosophy all actual entities are occasions of experience, and that includes God. An occasion of experience is internally related to past actual entities<sup>130</sup>, which then exists as objective data because their subjectivity has perished when their concrescence is over. As we have seen, process metaphysics holds that the becoming of an actual occasion is an instance of the many becoming one, an occasion of experience is thus a unique synthesis of past actualities into a unique perspective. This means that God, as an actual entity<sup>131</sup>, is internally present to the becoming of all occasions of experience, which means that God is present to all agents at all times. When I speak of agents in the context of Whiteheadian metaphysics, all actual entities are technically agents. This differs from Schleiermacher's thought where agency is a more limited notion. All occasions of experience in Whitehead's philosophy are

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127 Ibid. p.214

128 Ibid.

129 Ibid.

130 It is important to note that they are only internally related to past actualities, not to contemporary occasions of experience, an occasion of experience has no causal efficacy while it is in the stage of concrescence.

131 It is a discussion in process philosophy about whether Whitehead is inconsistent when he affirms that God is a non-temporal actual entity which is basically in an everlasting stage of concrescence. As I have noted in the footnote above, there can be no causal efficacy from an occasion of experience which is in the stage of concrescence. This led to Charles Hartshorne's revision of the doctrine of God to a personally ordered society of actual occasions.

See Griffin, David Ray, *Whitehead's Radically Different Postmodern Philosophy: An Argument for its Contemporary Relevance*, State University of New York Press, 2007. p.170

agents in the sense of having a degree of subjectivity.

Griffin calls agents for “*genuine individuals*”<sup>132</sup>, all genuine individuals have experience and thus subjectivity. Griffin also notes how Charles Hartshorne further developed Whitehead's panexperientialism. Hartshorne developed the doctrine to differentiate between simple individuals and compound individuals, the latter being compounds of simple individuals whose experience gives rise to dominant occasions of experience with a higher unity of experience and action.<sup>133</sup> This allows process philosophy to maintain the doctrine of panexperientialism while understanding why a stone has no real agency as a whole while a dog does. The reason is that a stone is a mere aggregation of simple individuals whose subjectivity cancel each other out. The dog on the other hand has a higher unity of experience, its central nervous system gives rise to a unity of experience and action, a dominant occasion of experience with a higher degree of subjectivity. For Clayton, subjectivity and thus agency is not a fundamental part of any actual entity. Subjectivity, consciousness and spirit are emergent realities. As we have seen this means that only some actual things are agents, and the room for specific divine action is limited to those things with agency, the capacity to receive ideals from God and be influenced at the informational level. This means that Clayton ends up in a middle position between Schleiermacher and Whitehead when it comes to how far down he is willing to attribute agency in the “chain of being”. Things without agency in Clayton participate in God as well, God is the ground of their existence, but there is no specific divine influence on them. In the last sub-chapter of this chapter I will have a brief look at what God actually does according to Philip Clayton, especially in relation to entities without agency, some concrete examples of how Clayton imagines God acting and relating to the world, both with things with the capacity for agency and with things without agency. In chapter 5.3 I will evaluate whether Clayton's dismissal of panexperientialism is helpful or not.

#### **4.5: What does God actually do according to Philip Clayton**

I have now looked at ways of conceiving divine action at the abstract metaphysical level. In this sub-chapter I will attempt to describe how Clayton's model would manifest more concretely, what are some examples of how this model applies to concrete example. I will look at how Clayton imagines God relating to and influences various entities in the world, ranging from fundamental particles to human beings.

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132 Griffin, David Ray, *Whitehead's Radically Different Postmodern Philosophy: An Argument for its Contemporary Relevance*. p.58

133 *Ibid.* p.58-59

I have shown that Clayton essentially ends up with a middle position between Schleiermacher and Whitehead when it comes to attributing agency in the natural world and thus the capacity to receive specific divine influence. He is less anthropocentric than Schleiermacher when it comes to attributing agency, Clayton wants to start attributing forms of subjectivity and agency at the biological level<sup>134</sup>, but not to all actual entities like Whitehead.

The lack of agency does not mean that Clayton denies that the entity in question participates in God. Clayton imagines that fundamental physical particles participate in God, they exist by participating in God and as such they are entirely contingent. However, they have no agency, they have no agency because they lack spontaneity, creativity, novelty, intentionality and freedom<sup>135</sup>, they operate according to laws. Clayton does however note that “*For panentheists, such particles and forces are not external to God, hence their causal powers are still ultimately modes of divine activity.*”<sup>136</sup> He keeps using the analogy of the relationship between mind and body to also illustrate how such entities that operate in a fully lawlike manner are nonetheless a mode of divine activity: “*Natural regularities within God's universe, then, are roughly analogous to autonomic responses within an individual's body—the things that one's body does without conscious interference or guidance.*”<sup>137</sup> There is thus a big gap between specific divine action in the unfolding of the universe. I have written about how Clayton affirms creatio ex nihilo, where God freely decides to create, and it is a form of kenotic creation where God self-limits in order to ensure genuine relationship with free agents. If God cannot specifically influence entities such as the particle of physics or the atoms of chemistry, then God was unable to act specifically from the act of creation until the process of evolution produced entities capable of agency. Once the process of biological evolution got started, it started to produce entities capable of the agency required for specific divine influence, since agency requires entities with enough emergent complexity to not be physically determined since “*physical determinism would exclude free agency*”<sup>138</sup>. The greater the emergent complexity, the greater the possibility for divine action to exert influence upon that being through emergent causality, as I described in chapter 4.3. In chapter 5.3 I will offer some criticism of this view on how God concretely acts in the world, I think Clayton's

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134 Clayton, Philip, *Adventures in the Spirit: God, World, Divine Action*, p.215

135 Implied features of genuine agents according to Clayton. See Clayton, Philip, *Adventures in the Spirit: God, World, Divine Action*, p.204

136 Ibid. p.215

137 Clayton, Philip, *God and Contemporary Science*, p.101

138 Clayton, Philip, *Adventures in the Spirit: God, World, Divine Action*, p.215

dismissal of panexperientialism has some serious consequences when thinking about how God relates to primitive biological entities as well as entities belonging to the sub-biological levels of reality.

## CHAPTER 5: CRITICISM

### 5.1: Introduction

In this chapter I will present some possible criticisms of Philip Clayton's model of divine action. His model is built upon a variety of philosophical positions, ranging from philosophy of science to philosophy of religion. Some of these philosophical positions are more controversial than others. In this chapter I will criticize Clayton from two perspectives. The first critical perspective will challenge what I consider to be the most controversial philosophical assumption used in his model, namely that of ontological emergence. I will use arguments for epistemological emergence from Jaegwon Kim in order to do this.

The second perspective will challenge Clayton's departure from the central Whiteheadian doctrine of panexperientialism. Philip Clayton's model of divine action is influenced by Whitehead's philosophy, but his rejection of panexperientialism may be problematic, it is a doctrine that is very central to Whitehead's metaphysics. I will utilize the more orthodox process thinker David Ray Griffin as well as Whitehead himself to carry out this critique.<sup>139</sup>

### 5.2: The reliance on ontological emergence

In chapter 3 and 4 I have presented why emergence theory in the form of ontological emergence is so important for Clayton's model of divine action. The reality of ontological emergence is essential for Clayton's model in that it represents the “*holes in the hubs of the wheels*”<sup>140</sup> where where influence might at least theoretically occur. Such influence would then manifest as downward causation, which is an essential feature of ontological emergence. If ontological emergence is challenged, that represents a very serious challenge to the entire model of divine action in Clayton's work. Ontological emergence is somewhat of a controversial view within emergence theory. In this sub-chapter, I will entertain the arguments of the well known philosopher of mind Jaegwon Kim against downward causation, and thus

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<sup>139</sup> David Ray Griffin is not an entirely orthodox Whiteheadian, he has carried over some of Charles Hartshorne's modifications of Whitehead's thought.

<sup>140</sup> The space where informational causation might occur, this is Terrence Deacon's metaphor, see chapter 4.3.1.

against the feature of ontological emergence that is necessary for Clayton's model to be coherent. Kim uses a rather abstract example to argue his point, in this next part Jaegwon Kim will talk about emergence theory in light of evaluating the reality of mental causation. If mental causation is real, meaning that the emergent reality of mind would have causal powers<sup>141</sup>, it would be a form of downward causation. The example of mental causation is good in relation to Clayton's model of divine action as well, since the possibility of divine influence on conscious agents, and hence their minds, is a central part of his model.

Kim wants us to consider a mental property M. If this mental property is real then it follows from Alexander's dictum that it must have some new causal powers. Kim then wants us to further consider this mental property being causally efficacious in relation to another property N. This property N is unspecified. Depending on which level of reality it falls under, the causal relationship between M and N could be either: 1) Mental to mental causation (N is another mental property). 2) Mental to physical causation (N is physical), and thus a form of downward causation. 3) Mental to social causation (N is a higher level emergent reality, like social properties), thus a form of upward causation.<sup>142</sup> It is primary case 2) that is relevant for this discussion, whether we can talk about downward causation from the emergent mental level to the constitutive physical level, which Clayton assumes in his ontological emergence when speaking about how it is theoretically possible for God to influence the world. If God influences a person by informational causation at the emergent level of mental reality, to actually make any difference it would have to be able to manifest at the constitutive physical level. This critique will therefore focus on Kim's critique of the conception of mental to physical causation. Kim also notes that the possibility of 1) and 3) ultimately presupposes the possibility of 2).<sup>143</sup> I will follow Kim's argumentation and his usage of symbols. The mental reality or property will still be symbolized by the letter M, and the the now specified physical reality or property it is causally efficacious in relation to will be symbolized by the letter P. Now let us consider two subsequent events, Kim labels these M\* and P\*. The question of downward causation then becomes what the cause(s) of M\* and P\* is. If M is the cause M\*, then it is a case of mental to mental causation. If P\* is the cause of M\*, then it is a case of a physical state realizing a mental property. The question becomes, what is the cause of P\*? Emergence theorists agree that mental phenomena are constituted by a physical realization

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141 Kim, Jaegwon, *The Nonreductivist's Troubles with Mental Causation*, *Emergence: Contemporary Readings in Philosophy and Science*, edited by Bedau, Mark A. and Humphreys, Paul, Massachusetts Institute of Technology, 2008. p.436: Kim appeals to Samuel Alexander's dictum: "To be real is to have causal powers."

142 Ibid. p.438-439

143 Ibid. p.439

base. If downward causation is a reality, we can suggest that M is the cause of P\*, that would be a case of mental to physical causation. Jaegwon Kim's question is "*couldn't we avoid this commitment to downward causation by exploiting the fact that M, as a mental property, has its own realization base, say P? Why not say then that M's causation of P\* comes to merely this: M is physically realized by P, and P causes P\**"<sup>144</sup> In this case, M possesses no real causal power. M is realized by P and P\* follows from P, then M\* is realized by P\* and M is neither the cause of P\* or M\*. If we define what is real by Alexander's dictum, then M is not real because it has no causal power, M becomes an epiphenomenal state. Jaegwon Kim's criticism of downward causation is built upon the principle of causal inheritance: "*If M is instantiated on a given occasion by being realized by P, then the causal powers of this instance of M are identical with (perhaps a subset of) the causal powers of P.*"<sup>145</sup> If we transfer the principle of causal inheritance into the discussion about ontological emergence, then a problem arises. If an emergent property is realized by its constituent parts, are the causal powers of this emergent property ultimately derivative from the causal powers of its constituent parts? If it is, then emergent properties have no real causal efficacy of their own and we end up an epistemological emergence theory, which means that when we are talking about an emergent property it is really just a shorthand for describing the complex underlying constituent processes and causal powers. If the property that is said to be emergent really just is an epiphenomenon without any real causal efficacy, then it can have no ontological reality.

The possibility of emergent properties being epiphenomenal and in principle describable using, even if extremely difficult or even impossible in practice, by reference to the causal powers of its lower level constituents must be taken seriously as a possible criticism of Clayton's model of divine action. If the holes in the hubs of the wheels are epiphenomenal and thus without any real causal efficacy of their own, Clayton's entire model of divine action collapses. Clayton is of course aware that he assumes that a feature like human thought will not ultimately be explained in terms of physical or biological laws<sup>146</sup>, but that does not change the fact that his model of divine action rests heavily upon the reality of ontological emergence. I obviously cannot decide which one is correct of epistemological and ontological emergence theory here, but I do think it is important to highlight that the affirmation of ontological emergence is by no means uncontroversial. The difficulty with ontological emergence theory seems to be with, as Jaegwon Kim's article shows, to determine in what

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144 Ibid. p.440

145 Ibid. p.441

146 Clayton, Philip, *Adventures in the Spirit: God, World, Divine Action*, p.226

way the emergent property may possess its own causal efficacy and to define the exact nature of downward causation. I would argue that it is difficult to talk about the possibility of that kind of causation without going deeper into metaphysical discussions. This leads me to the my other point of criticism of Clayton's model of divine action, namely his dismissal of the doctrine of panexperientialism from process philosophy. The advantage of process philosophy is that it has a richer conception of causality than what you find in the somewhat vaguely defined physicalism that dominates many of the discussions within emergence theory. Process philosophy and thus process theology operates under the metaphysical assumption of the fundamental reality of subjectivity, and the idea that a thing may exhibit unique and novel characteristics when it is part of a system may possibly be more coherent in a metaphysics that embraces doctrines such as internal relations and panexperientialism. That is not an argument for the validity of those doctrines, only an argument that deeper metaphysical commitments must be made in order to make sense of ontological emergence, if it is real.

### **5.3: The dismissal of panexperientialism**

As we have seen, Philip Clayton wants to use some insights of process philosophy in order to affirm the possibility of God offering specific ideals to specific agents at specific times. What Clayton does not want to affirm is the process philosophy definition of agency, which is far broader than his own. As I have discussed above, process philosophy affirms the doctrine of panexperientialism, which means that all actual entities are occasions of experience, there is a degree of subjectivity in even the most minute and simple actual entity. This means that technically speaking, all actual entities are agents in the sense that they at least possess a minimal degree of self-determination. For Whitehead, the actual world made up by “*creative, experiential, physical-mental events*”<sup>147</sup>.

In chapter 4.5 I looked briefly at how Clayton imagines God relates to entities that he imagines have no degree of agency whatsoever, be it physical particles, chemical elements, organic molecules or even primitive biological organisms. That these have no agency, due to not being complex enough for the emergence of more complex causality where God could in theory exert influence without violating the laws that describe the levels that constitute those emergent levels, forces Clayton to view the activities of those entities as autonomic divine

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147 Griffin, David Ray, *Whitehead's Radically different Postmodern Philosophy: An Argument for its Contemporary Relevance*, p.60

activity. That is of course a possible view to hold, but I do have some reservations about some of the possible implications of it that I think an affirmation of the doctrine of panexperientialism could help alleviate. Clayton has established form of panentheism with a strong affirmation of creatio ex nihilo where God freely creates the world and an affirmation of kenotic creation where God self-limits in order to have real relations with free agents. These doctrines that so emphasize God's free decision to ensure genuine relationships could be seen as possibly incongruent with an evolutionary history where the vast majority of time up until now has been without any entities capable of free agency and thus any real relationship with God, according to Clayton's own attribution of agency to various entities. Until the evolution of fairly complex biological entities, there was no agency in the world for God to relate to, only physically determined entities without any form of agency. This evolutionary history does of course not contradict Clayton's theological model and its dismissal of panexperientialism, but I do think there is some possible friction there. I believe that an affirmation of panexperientialism could alleviate this incongruence. It would alleviate it because the doctrine of panexperientialism states that all actual entities, whether they are fundamental physical particles or human beings are agents. They are agents in the sense of being able to receive aims or ideals from God according to their capacity. Combined with the doctrine of internal relations, this is a metaphysics where God is an element of the becoming of every occasion of experience. God relates to every actual entity and offers specific ideals to that specific entity at that specific time. Lower level actual entities would not be entirely physically determined entities that would be seen as only autonomic functions of God. With panexperientialism, all actual occasions have subjectivity in their concrescence, as such they are not only relating to God and receiving specific aims according to their capacity, they also have a degree of *intrinsic value, a value for itself*<sup>148</sup>. When the subjectivity of the actual occasions perish, they do become an objective datum for future occasions, and as such they exhibit extrinsic value, value for others as elements of their experience.<sup>149</sup> This is not the case if panexperientialism is rejected, intrinsic value would disappear for any entity without any subjectivity. In Clayton's system, non-biological entities and primitive biological entities would only exhibit extrinsic value, their value would be for other entities only, entities capable of subjectivity by constituting the emergence of subjectivity in them. If the purpose of the decision to create is to realize the possibility for God to relate to extrinsic agents and for these agents to relate to God, then Clayton's definition of the purpose of the world is close to

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148 Ibid. p.78

149 Ibid.

that of Whitehead: *“The purpose of God is the attainment of value in the temporal world[...]Value is inherent in actuality itself. To be an actual entity is to have self-interest. This self-interest is a feeling of self-valuation.”*<sup>150</sup> With the doctrine of panexperientialism then, the attainment of the purpose of creation would be present from beginning, although the attainment of value would increase over the evolutionary history of the cosmos as the possibility for richer forms of subjectivity and thus richer forms of value would evolve with the emergence of more complex actual entities with a much greater degree of subjectivity. Of course, it may be that the view of Philip Clayton is more scientifically defensible, it is no doubt controversial to attribute subjectivity, however rudimentary, to fundamental particles. This criticism is thus not an argument where I claim that the acceptance of panexperientialism is more coherent with scientific cosmology or that it follows by some metaphysical necessity. The purpose of this short criticism is simply to explore whether the doctrine of panexperientialism could offer more congruency when looking at the evolutionary unfolding of the universe and the purposes for the free act of creation according to Clayton. I think that is the case., but that is something completely different than saying that Clayton is wrong. It must finally be noted that if one accepts a completely orthodox process metaphysics, there is no free act to create from God and thus the realization of value from the “beginning”<sup>151</sup> would not be an attainment of the purposes flowing from the decision of God, but rather from a metaphysical necessity, the ultimate metaphysical principle of creativity.

## CHAPTER 6: SUMMARY AND FURTHER QUESTIONS

### 6.1: Introduction

This chapter will be a brief summary of what this thesis has been about with some commentary from me. I will also briefly explore the limitations of this thesis as well as some thoughts about how one could proceed from what has been discussed in this thesis given the limitations of the thesis.

### 6.2: Summary

This thesis has looked at the possibility of affirming divine action or divine influence in light

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150 Whitehead, Alfred North, *Religion in the Making*, Cambridge University Press, 1926. p.87

151 Strictly speaking, there is no beginning according to process philosophy,.

of contemporary scientific cosmology. It has done so from one particular perspective, I have analyzed the model for affirming divine action by the theologian Philip Clayton. In order to be able to do such an analysis I have spent considerable time describing and looking at the underlying philosophical assumptions of that model, without that it would be difficult to evaluate the model at all. I started by looking at the general relationship between science and religion in chapter 2, looking at four general models for relating the two and then found that Clayton broadly speaking fits within the integration model. Then I looked more specifically at how Clayton viewed the relationship between scientific and religious knowledge as well as very briefly looking at the general problems associated with metaphysical talk about God, which this thesis essentially is.

In chapter 3 I looked at the the two major theoretical philosophical frameworks on which Clayton's model of divine action is built. More specifically, the theoretical framework of emergence theory is part of the philosophy of science while the theoretical framework of pantheism is part of the philosophy of religion and theology. I have defined emergence theory generally as well as looked at the two main options within emergence theory, namely epistemological and ontological emergence theory. Clayton's model is built on the latter, but knowledge about epistemological emergence theory strengthens the understanding of the uniqueness of ontological emergence theory, and the possible correctness of epistemological theory is the basis for one of my critical perspectives later in the thesis. Then I have two transitional sub-chapters that somewhat bridges the gaps between emergence theory and pantheism. I looked at the relevance of ontological emergence theory for Clayton's theology as well as the limits of the analogy of emergent realities when talking about the spiritual reality that is God. This sub-chapter concludes with Clayton's dipolar conception of God, with the poles being the necessary ground of being which pre-exists the world as well as the responsive and relational ground of emergent processes which relates to the emergent realities of the world according to their capacity as they evolve and emerge. After this I had a very brief look at Eastern Orthodox theology, which also has pantheistic tendencies. I contrasted their conception of God as essence and immanent energies and saw it as an analogy, albeit a limited one, of Clayton's dipolar conception of God. I then speculated briefly about the differences of these two conceptions of God being tied to the more general cosmological ideas in which these conceptions arose. After this comes my very brief description of the historical developments of pantheism, as well as some attempts to look at the variations within pantheism as it is a rather general concept that envelopes quite different views, some of

which contradict each other. I particularly look at the difference between emanationist and relational forms of panentheism, as this distinction is the most important for the rest of the thesis. Finally in this chapter I present Philip Clayton's panentheism, what he wants to affirm with the panentheistic analogy, what he wants to say about the relationship between God and the world with this analogy and the very related question of his doctrine of kenotic creation that is central to understanding his view on the nature of divine action.

Chapter 4 is in many ways the main chapter of the thesis, as it deals directly with Clayton's model of divine action. As I hinted at above, it is not a part of the thesis that stands in isolation. The discussion of this topic stands in continuity with the discussions in chapter 3 especially. I start this chapter by looking at some principles in natural science that can potentially cause problems for any discussion about the possibility of divine action. I look at the principles of naturalism and determinism. Based on this discussion I introduce Clayton's plea for constructing a new theory of causality. The motivation for such a new theory of causality is not just to affirm the possibility of divine action, it is also needed if one grants the reality of ontological emergence. The next sub-chapter thus deals with Clayton's description of this new theory of emergent causality. This theory of causality is the theoretical opening for where divine influence could find a place within the scientific cosmology.<sup>152</sup> The next sub-chapter deals with Clayton's panentheistic-participatory theory of agency. In this chapter I look at what Clayton thinks it could mean to be a finite as well as an infinite agent. Clayton utilizes concepts from both Schleiermacher and Whitehead in order to do this. He constructs a model of divine action where he uses the idea of the finite participating in the infinite ground for their existence from Schleiermacher, which strongly underlines the contingency of the world upon the necessary being of God. He holds this view in dialectical tension with the Whiteheadian relational view in order to affirm that God is capable of relating to specific agents at specific times and offer them specific ideals and aims according to their capacity. In order to do this I explore some central doctrines of process philosophy in some detail. Some insight into these doctrines is also relevant for one of my criticisms later on. Finally in this chapter I look briefly at the more concrete consequences of Clayton's model of divine action that I have presented in fairly abstract terms. The most important insight in this last sub-chapter is Clayton's distinction between how God relates to entities with and without capacity for agency and I introduce his analogy of viewing God's relationship to entities without

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<sup>152</sup> Scientific is here used in a broad sense. This theory of causality assumes the reality of ontological emergence and emergence theory is technically not a scientific theory, it is a theory that falls in under the philosophy of science.

agency as the autonomic functions of God.

Chapter 5 is where I offer some criticism of Clayton's model. I present two different criticisms. So much of Clayton's model depends upon the reality of ontological emergence, that my first criticism is a criticism of ontological emergence by utilizing the analysis of the possibility of mental causation by Jaegwon Kim. This criticism looks at the possibility that what we call emergent realities really are epiphenomenal in the sense of their causal powers being derivative from their physical realization base and thus the real causal power and thus ontological reality is to be located at the level of the parts that constitute the emergent property. If this criticism is correct, it would unhinge the entire model of divine action found in Clayton, so awareness of that possibility is very important. The second criticism is based on Clayton's dismissal of the process philosophical doctrine of panexperientialism. I do not present an argument for the reality of panexperientialism, so I'm not arguing that Clayton is wrong on this account. My purpose with this criticism is to highlight a possible incongruence between Clayton's view of the purpose of creation and the lack of possibility to attain that purpose for a very significant part of cosmic history.

### **6.3: Limitations and possible further questions**

Looking at the problem of divine action in light of scientific cosmology is a complex problem. It is a problem that can be approached in multiple ways, using a large variety of philosophical assumptions. In selecting Philip Clayton's model of divine action for analysis I have already strongly limited the scope of the thesis. Clayton operates within a certain philosophical context, mainly inspired by process theology and German idealism as well as emergence theory. It is important to underline that this is by no means the only way to approach the problem of affirming divine action today. Even asserting the possibility to analyze this problem metaphysically is one that could be disputed and approached in different ways. This also means that my criticism comes from the immediately related philosophical context. My two criticisms are from the discussions within emergence theory and process philosophy. There are of course many more possibilities for criticism, but many of those would come from other philosophical frameworks which would require the introduction of those as well, and that is not possible given the scope of this thesis. Another important limitation in this thesis is the lack of discussion around the concept of science itself. Scientific cosmology in my thesis becomes rather broad and general and it involves certain assumptions

from the philosophy of science. If this thesis was to be expanded, the discussion of what science itself is would be important.

There is a limitation in this thesis that suggests further questions. This thesis mostly operates at the more general level of philosophy of religion. A possible next step, that Clayton does to a certain degree, is to apply this more general philosophy of religion to Christian theology and see if it is capable of re-expressing core Christian doctrines such as the trinity, Christology, eschatology and the possibility of new creation.

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