

A systematic theological inquiry into the role of rationality in Dogmatics

ZBK Zulu

 orcid.org/0000-0002-7361-2898

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Supervisor: Dr Manitza Kotzé
Co-supervisor: Dr Charles Mbewe

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Student number: 28374975

DECLARATION

I, Zacchaeus Boniface Kauma Zulu, hereby declare that this MTh dissertation, *A systematic theological inquiry into the role of rationality in Dogmatics*, is my own work and has not been submitted either by me or another person to any other University other than this time to North-West University only.



Zacchaeus Boniface Kauma Zulu

Student number 28374975

North-West University [Potchefstroom Campus]

South Africa

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DEDICATION

I wish to dedicate this work to my wife, Veronica, and my family for the support given to me during my studies; their support during my study period is much appreciated.

I also wish to dedicate this work to all persons in our churches who have persons with mental challenges. And all the Pastors and Priest who responded to the questionnaire that was given to them whose names are too numerous to mention.

PREFACE

I appreciate and thank God Almighty who enabled me to undertake such a study. All the nights I spent with fewer hours of sleep, the energy to face the following day came from him.

I also wish to thank my wonderful supervisor, Dr Manitza Kotzé, who throughout this journey has had faith in me and believed that I can contribute to the theological discourse through this undertaking. Her guidance has brought me this far. I also wish to recognize my local supervisor Dr Charles Mbewe a Surgeon and an Honorary Lecturer in General Surgery at The University Teaching Hospital (UTH) in Lusaka.

I wish also to submit praises and thanks to Dr. Nita Besa, a Psychiatrist at Chainama Hills College Hospital (CHCH) in Lusaka, for guiding me on matters of physiology and psychology of the brain. I acknowledge Catherine Katete and John Yona for previewing the document. Thanks also to Dr Andrew Newberg of the USA who donated his book (Principles of Neurotheology) for me to consider for use during my studies.

Finally, I wish to thank all the parents and guardians of children with mental challenges, who agreed to have their children assessed and considered for this study.

ABSTRACT

This study examines the role of rationality in Dogmatics. It offers us a wider understanding of the mental faculties from where rationality emanates as given to human beings by God. This study argues from the theological understanding of the image of God. Carey Latta (2018) argues that the image of God is the doctrinal tenet by which Christians understand what it means to be human. Tertullian argued that the image of God is the state of being relating to humanity's form, while in the Patristic period the argument was that of human reasoning (McGrath, 2007:360-361). The argument that Tertullian offered about the Patristic period values the image of God by arguing on human reasoning, which involves rationality. It is also clear that what this period offered was the rational nature of humanity by referring to human reasoning (cf. McGrath, 2007:143-144). However, this study argues that the brain is central in processing theology; theology depends on a functional and competent brain.

Key terms: Brain, Mind, Rationality, Neurotheology, *Katastasi-sm*, Neuroplasticity

OPSOMMING

Hierdie studie ondersoek die rol van rasionaliteit in Dogmatiek. Dit bied 'n wyer begrip van verstandelike vermoëns, waaruit rasionaliteit voortspruit soos deur God aan die mens gegee. Hierdie studie argumenteer vanuit die teologiese begrip van die beeld van God. Carey Latta (2018) voer aan dat die beeld van God die leerstelling is waarvolgens Christene verstaan wat dit beteken om mens te wees. Tertullianus het wel aangevoer dat die beeld van God die toestand van die wese is, met betrekking tot die mens se vorm, terwyl die argument in die Patristiese periode die menslike redenasie was (McGrath, 2007:360-361). Die argument wat Tertullianus oor die Patristiese periode aangebied het, waardeur die beeld van God deur te redeneer oor menslike redenasies, wat rasionaliteit behels. Dit is ook duidelik dat wat hierdie tydperk aangebied het, die rasonele aard van die mens was deur na menslike redenasies te verwys (vgl. McGrath, 2007:143-144). Hierdie proefskrif bied egter aan dat die brein en rasionaliteit sentraal staan in die verwerking van teologie; teologie hang af van 'n funksionele en bekwame brein.

Sleuteltermes: Brein, Verstand, Rasionaliteit, Neuroteologie, *Katastasi-sm*, Neuroplastisiteit

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CHAPTER 1: INTRODUCTION

1.1 Introduction

This study has joined many other theological discourses that have ventured into understanding the role of the mental faculties in theology, whereas this dissertation has focused on the role of rationality in theology. Neil Messer (2017:1) affirms that this kind of study brings us to an awareness of who we are. Messer's view is that the brain does not just help us in social life but also promotes our faith. Jewish theology seems to have not accounted for the role of the brain though, as it believes that the heart - *leb* (*lebab*) is the only organ for faith and reasoning (c.f., Prov. 2: 10a; 14: 33; Dan. 10: 12; Deut. 6: 5; 2 Chron. 16: 9; Ezek. 6: 9; 14: 3). This dissertation also seeks to bring out the notion that external reality is as explained by the internal reality, whose realism is in the state¹ (*katastasi*) of the brain. External reality is what is visible of the image of God, while the internal reality is what medicine can attest as being able to engage in rational thought. This realism acknowledged in theology is by valuing the contributions of neurotheology to theology. The role of rationality and the brain is visible in the reading of Scripture, in our faith, and in our belief in God. We reason in belief, interpret in reading and come to an understanding of the materials before us. When we learn and discuss the being of God and his sharing of Himself with humanity, whom He made in His image, we need rational thought; the use of our brains.

This dissertation values the ethical issues that surround the usage of the terms sane and insane. David Rosenhan (2018, 1973) argues that some of the terms used to describe patients in hospitals can be perceived to be as offensive and degrading, i.e. 'insane' and 'abnormal'. For Rosenhan, being 'sane' refers to psychological normality (being mentally healthy), while 'insane' is psychological abnormality (being mentally ill). Nonetheless, McBurney (2001:53) addresses the issue of ethics by arguing that ethics in psychological research are a historical trend in civil and human rights. He also adds that the Nuremberg trials of the Nazi war criminals led to a consciousness of the need for ethical controls in scientific research. What McBurney has offered in saying consciousness must be involved in scientific studies has been valued in this dissertation. I am conscious on the use of terminologies so that the reader and the affected are nor offended by this research.

My point of departure in this dissertation, however, has been the work of rationality and the brain in theology, reflecting on what deficiency of rational thought can do to the image of God. It

¹κατάσταση means situation, status, condition, state, statement, list different from πολιτεία meaning state, polity, commonwealth whereas κράτος means state, sway

will be argued from the Reformed perspective. This is unlike the arguments that neurotheology has offered this far. The arguments of scholars like Newberg (2010), Brandt (2010), Ashbrook (1984) and d'Aquili' (cited in Newberg, 2010) are biased towards hermeneutics and not Dogmatics. The evidence is the tests they conducted on the praying nuns can offer more than that to theology. It is on this basis that I argue that the notion of rationality and the human brain should be investigated in the interest of dogma. Moreover, theology is there to help us know God. Everything we do has to help us reach God. Thus, the work of human organs in the plan of God must be accounted for. In theology, the human mouth offers confession, while the heart is there for faith. Our legs can take us where we desire to go, yet only the brain controls the rational functions such as those discussed by Newberg, who indicates that the brain has the functions of hearing, reading, praying, cognitive functions, emotions, memory, and other such functionalities (2010:171)

James B Ashbrook (1984) first merged theology and neuroscience. He was the first theologian to undertake this type of study and coined the term neurotheology. Therefore, this dissertation examines the role of rationality in Dogmatics. It will offer us a perspective on the true worthiness of the brain as given to humanity by God. Carey Latta (2018) argues that the image of God is the doctrinal tenet by which Christians understand what it means to be human, while Tertullian argues that the image of God is the state of being and that it relates to humanity's form. However, in the Patristic period, the argument was that of human reasoning (McGrath, 2007:360-361). The argument offered by Tertullian and the Patristic period values the image of God by arguing on human reasoning, which involves the brain. It is also clear that what this period offered was the rational nature of humanity by referring to human reasoning (cf. McGrath, 2007:143-144).

It is important to note that this kind of study is becoming a trend in theology today, because we need to appreciate the role mental faculties' offers to Dogmatics. Scholars such as Dr Andrew Newberg (2010), John MacArthur (2014), Neil Messer (2017) and Peter Erdi (1996) have argued on the importance of the brain in theology. Neil Messer's study focuses on neuroethics while scholars like Andrew Newberg and d'Aquili focus on neurotheology. Neil Messer (2017:5) argues that Karl Barth was dismissive of the relevance of natural science and Christian doctrine, making him a critic of this kind of study.

My reflection on this argument is that, there is a clear relationship between science and theology. The very definition of theology being a science makes this relationship important. My uptake is that the role of rationality and the brain is visible in the reading of Scripture and faith in God. What we are accounting for in this discourse is that rationality makes a huge contribution to dogma and that dogmas are hermeneutical material to church doctrine. It is also important

from onset to underscore that the brain becomes a hermeneutical device in this matter. On the other hand, the brain as a "device" makes it valuable to this dissertation. It is a device not only of the general scientific world, but of the theological world as well. This link makes us draw a clear understanding of the perfect relationship that exists between the brain's rationality and theology. Theology by nature is reason based, and void of a sound mind does not work well with the notion, since theology needs a performing device-brain for a functional discourse.

Progressively, Brandt *et al* (2010:305) defines neurotheology as the support structure of a sub-discipline to neuroscience. This is to accommodate theology and science in the understanding and application of dogma. Reichenbach *et al* (1995:10-39) states that science bears a special aura in our culture and that to be scientific is to be objective. He adds that by accounting for organs such as the human brain's capacities are far beyond what the animal uses. This notion agrees with the understanding of the image of God. Stephen Lammers *et al* (1987) discusses this topic from a human perspective and the beginning of personhood and its theological consideration. The argument of the 'theological consideration' broadly understood include the image of God. Black (2013), however, argues that the Creator of the brain gave humankind a neurological handbook (the Bible) and that we just have to embed its truths into our daily thinking. The following chapter will first attend to the historical setting of this study. This is important because of the newness of this kind of study to Dogmatics.

On such basis, I underscore that, the Apostle Paul in Romans 10:17 argued that faith comes by hearing the word of God. What Paul brings out echoes my argument that the subject of faith is very much the subject to rationality. One cannot build their faith if reasoning is void. This dissertation reinforces later on that this notion in the military is highly valued by testing the soundness of mind in order for them to offer their dogmas to the soldiers. The Church is therefore encouraged to link the notion of faith to the soundness of mind. It should be noted that, when discussing this subject, the debate should not be around grace, as that is for God to grant, whereas that faith, which is acquired or lost, is subject to the state of the mind of a human being.

Nonetheless, part of what this dissertation seeks to bring out is a relationship between science and theology. Newberg (2010) argues on such undertaking. What is clear, is that this theological discourse as a science has to be present in the faculties of other studies, just like psychology and philosophy has done. It would be wrong to think that such attempts have not been done before, as archaeology, for example, has some of its material content from theological materials. Therefore, this study draws strength from such understanding that its

contributions are vital to scientific studies and other branches of theology. An example is evident on how both Old Testament and New Testament studies have informed hermeneutics and systematic theology.

The proceeding arguments introduce the theological understanding of a 'rational theology' (Neurotheology) in the Early Church, in the Middle Ages (Medieval time), the Reformation and post-Reformational period, and the Modern eras. It lays out a general understanding of how the argument has developed over time. In the follow-up, I am focusing on the notion of an understanding of neurotheology, while the chapters that follow discuss the effect of rationality in dogmatics, as well as the image of God, evaluating it from the distortion that could come with brain ailments and finally, examining the ability of persons with brain ailment to learn doctrine.

1.2 Background to the study

The researcher always wondered what the impact of a deficiency of rational thought does to a believer. An observation over time has taken place as I have been serving the Church as a priest that some persons would be very committed to church life and activities, yet be differently abled in terms of rational thought abilities. Some of such persons have been offered basic teaching in doctrine and dogma through catechism yet fail short of remembering what was taught to them the previous Sunday when asked.

The understanding of the brain in neurotheology is not just about the cerebrum, cerebellum and the brain stem, but also its functional purposes and state. Neil Messer (2017:6) argues that our brain defines us, while Michael Fuller offers that the brain is a locus of so much that it is what is unique about human beings (Shakespeare, 2016:163). The question of the brain is not just a subject of science, but that of the Christian faith as well. Davis (2006:9) has argued that the embryonic human view by the Jewish text can teach us a lot about the lack of the word brain in their texts. The word "brain" does not come directly from Scripture, but that does not suggest that Christianity and its parent Judaism did not make mention of it.

Etymologically, the words 'mind' and 'heart' cannot be taken for a single interpretation as that would reduce the ethos, pathos and logos of the biblical passages. Looking, for example, at *nous*, it translates as 'the mind comprising the faculty of perceiving and understanding, feelings, judging, determining and intellect'. Whereas *phroneo* denotes: to have understanding, to be wise, to feel; to think, to seek and to strive for. *Dianoia* does mean the faculty of understanding, feeling, and desiring. For the Christian faith, these words are subjective and as used in a

passage would thus mean the understanding of the brain is taken from the understanding of the explanation of the existence of the mind.

Therefore, the primary understanding of Dogmatics, which is the case of this study, is that it is 'a set of principles offered by authorities as true for the building of faith'. Dogmatics as enforced principles of faith require rationality. Thus, the brain is important to human beings because it helps us to appreciate and interpret Christian doctrine. It is the ultimate tool to be employed in Dogmatics. However, the value of the brain to Dogmatics is argued for by Newberg (2010:179), who argues that this is about epistemic states whose elements are determined by how human beings made in the image of God sense and make sense of reality. This sense of realism reinforces the argument of the state of mind. People lacking in the ability to think rationally don't seem to make sense of what is offered.

The notion of the significance of the brain to Dogmatics remains valid, as Michelon in his work supports (2006). People are supposed to understand and apply what they learn and see in this world, however, it is challenging to defend the fact that a person with a serious brain ailment or without the ability to think rationally can correctly attain comprehension. Dr Newberg and Rabbi Halpern (2018:273) defend this notion by saying that our mental processes arise from or are caused by the neuro-physiological workings of the brain. However, a diseased mind has its cognitive functions affected. Newberg (2010:23) links this argument to the notion of consciousness, which is not necessarily created by the brain, but that the brain can "tap into" the vast universal consciousness that underlies all of reality.

The dissertation will view the argument forwarded by Alexander Fingelkurts and Andrew Fingelkurts (2009:14), who argue on the debates of our brain being hardwired to believe in and to produce God, or whether our brain is hardwired to perceive and experience God? The notion of the brain being hardwired is subject to this dissertation as it helps Dogmatics explain itself when Christian doctrine is offered. As for the adult brain, it has three regions which are visible; the cerebrum, cerebellum, and part of the brainstem making up the brain. The anatomy of the brain will be appreciated in Dogmatics as it brings out the debate of memory, which becomes the principle activity in memorising dogmas.

The dissertation will propose a hypothesis *katastasi* ('State' in Greek) in the brain's biological state so that we can understand the value of the brain better. *Katastasism* is to be understood as a dualistic state; where one person can be capable of rational thought while another might not be.

However, the understanding of the image of God is that of a human being, being created in the image and likeness of God different from that of animals and other created beings. In Genesis 1:24, God created animals and other living creatures according to their kind, yet humanity was made in God's likeness (verses 26, 27). The argument is that animals and other creatures were created in their kind, unlike the human being who was created in the image of God before the Fall. The image of God offers us an opportunity to be like God in that we can invent, name, discover and participate in God's divine plan of salvation, an act never granted to other created beings. The argument is not about how close we are genetically to other created beings, but our position in God. Thus, the primary argument of 'humanity's form' reveals a lot. "Form" being the visible shape or configuration of something draws us to argue that the state of being a 'visible shape or configuration' speaks to this dissertation.

The form of Christ is that He was the perfect Image of the invisible God (c.f. 2 Cor 4:4). The challenge is on how humanity can measure up with this standard as our being is effectually defective physically and mentally. From within the image of God, we see primarily the manifestation of the rational element, affection; dominion and will manifesting in humanity. Latta's (2018) point of departure is that the mind consists of intelligence, rationality and language and should not be measured against the standard of competence. This is a highly questionable argument as all discourses must be measured within the levels of competence and that this competence must be qualified to mean mental competence. The sender must be as mentally competent as the receiver for meaningful dialogue to take place. Dogmatics is a study that fully depends on rational and mental competence. A brain disorder may affect someone's personality, relationships and sense of identity and that some brain injuries can cause loss of awareness and interactions with the surroundings, argues Neil Messer (2017:1).

An additional argument should be around the notion of whether the image of God is a condition, a state or a status. The image of God being a state and condition after the Fall of humanity is independent of the effects of the environment on the brain. What has been offered is that the image of God is what makes human beings different from other created being. Humanity was made in the image and likeness of God, unlike animals which were made after their kind. Based on these arguments, it is important to also consider the question of doctrine being taught to persons with brain ailments or lacking in the ability of rational thought.

The dissertation will also endeavour to consider the failure for theology to examine persons with brain ailments emanates from a lack of theological tools for assessment unlike other fields which employ functional Magnetic Resonance Imaging scan (fMRI), Glasgow coma scale (GCS), Factual memories (FTM) and Flashbulb memories (FBM), a notion Neil Messer agrees

with (2017:10-11). This is important for Christian doctrine and Dogmatics that the offering is justly done.

1.3 Problem statement

The problem is that theology, even more so Dogmatics, has failed to account for the role of mental faculties such as rationality in its discourses. Thus, there is a lack of clear understanding of the role of rationality in Dogmatics. The evidence is in a lack of a clear policy and catechism, which addresses persons who have brain ailments by churches such as the Anglican Church (c.f.1549 Book of Common Prayer or 1989 Anglican Prayer Book). There are always dogmatic discourses applied, yet the results are not weighed against the functional cognitive nature of the brain. This situation has led to a poor or lack of a dogma that would inform and educate all persons that visit churches and have brain ailments. It is written; "Train up a child in the way he should go; even when he is old, he will not depart from them" (Prov. 22:6, ESV). To draw an understanding on this, a comparison between the brain and a computer is ideal in that a computer is only as important as its programming, while a good state of the computer is very important for computation.

Sichamba *et al* (2018: 3) stresses that a problem statement must have the following;

- a. Address a gap
- b. Be significant enough to contribute to the existing body of research
- c. Render itself to be investigated via a collection of data
- d. Be interesting to the researcher and suit his/her skills, time and resources
- e. Be ethical.

This dissertation provides as a basis for more research in the field of Dogmatics by accounting for organs that promote rationality and application of theology such as the brain. This dissertation is also ethical. David Rosenhan (2018, 1973) has addressed the ethical issues that go with this kind of study. In addition, McBurney (2001:53) addresses the issue of ethics stating that ethics in psychological research are a historical trend in civil and human rights. He also adds that the Nuremberg trials of the Nazi war criminals led to a consciousness of the need for ethical controls in scientific research.

1.3.1 Research purpose

The purpose is to address the gap of a lack of accounting for the role of rationality created by Dogmatics. In answering the question, this research proposes that the Jewish inability to account for the brain in their theology has become a challenge to theology today. This dissertation will eventually propose tools for theological assessment on persons with brain ailments. This study is not proposing a theology, but to account for all parts of a human being as they are all important to theology. Above all, the brain plays a central role in theology much more so that dogma requires rationality and being able to comprehend and remember the taught materials is essential.

1.4 Research question

The research problem is the lack of clear understanding of the role of rationality and the brain in Dogmatics. This research is very important to Dogmatics, as it responds to questions that this kind of study brings out. Many other theologians have endeavoured to attend to this kind of study, but they have focused more on hermeneutics than on Dogmatics. The research question of this study can be articulated as follows:

What is the role that rationality and the brain in plays in Dogmatics the teaching of Christian doctrine?

The following sub-questions are wide enough to offer a correct response to the question of the importance of rationality in Dogmatics.

- a) To examine the historical background of brain theology (Neurotheology);
- b) To examine the effect of the rationality in Dogmatics;
- c) To examine whether the image of God can be distorted by brain ailments; and
- d) To examine if there is a way in which persons with brain ailments and lacking in the ability for rational thought can be taught doctrine.

The results of this study will contribute to the theological discourse in the field of theology. Thus, to achieve the aim, this dissertation has defined neurotheology and transverse this kind of discourse in theology. This dissertation hopes in its conclusion that tools of assessment on persons that come within the church's care can be recommended. It hopes also that other fields of theology will employ the results of this study.

1.5 Research aims and objectives

1.5.1 Research aim

This research aims at proving whether rationality is significant to Dogmatics. This is in both the cognitive and the physical state of the brain. To probe a distinction between a medically proven functional brain and a medically proven diseased brain in the light of processing and applying information. Sichamba *et al* (2018:15-16) states that research aims are intentions and goals that a researcher seeks to achieve. He further adds that they reflect the aspirations and expectations of the researcher. Aims will always motivate the outcomes as this dissertation has done.

1.5.2 Research objectives

Objectives are intentions or purposes stated in specific measurable terms (Sichamba *et al*, 2018: 18). Objectives must;

- a. Be a guide in deciding on the respondents we intend to work with during the research period.
- b. Be clearly stated
- c. Achievable and measurable
- d. Limited in scope and time
- e. Expound the aims of the research
- f. Influence all components being undertaken in the research and,
- g. Objective enough as well as being consistent.

This dissertation offers four major objectives, which are:

- i. To offer historical background and materials on brain theology, also known as neurotheology;
- ii. To discover the effect of the rationality in Dogmatics, as all learning or studies depend on a brain that can process information;
- iii. To examine whether the image of God can be distorted by brain ailments; and
- iv. To employ an in-depth study and provide vivid notions on the objective of persons with brain ailments and lacking in the ability of rational thought being able to be taught doctrine.

1.6 Central theoretical argument

The central theoretical argument in this dissertation is **that the brain offers much more to Dogmatics than we have accounted for thus far**. This research has mainly explored the role of rationality and the brain in Dogmatics. To attain this in the preamble, I have considered historical factors on the notion in order to understand not only the modern church's view on brain theology, but from the time of Christ and the Jewish understanding of brain theology. Secondly, I have assessed the available dissertations and books in Neurotheology on the notion so that the whole value of mental faculties can be understood and linked in a way that is significant to theology.

1.7 Paradigmatic perspective

The paradigmatic perspective that this dissertation offers is the significance of the rationality in dogmatics researched from the Reformed tradition. Hawking (1988:10) argues: "Any physical theory is always provisional, in the sense that it is only a hypothesis: you can never prove it. No matter how many times the results of experiments agree with some theory, you can never be sure that the next time the results will not contradict the theory." Hawking further argues that what characterizes a good theory is several predictions it makes which in turn could be disproved, or falsified. Only on such a presumption has this dissertation supposed that rationality and the brain has a role in Dogmatics.

1.8 Meta-theoretical assumptions

The meta-theoretic assumption of this dissertation is that information prompts the brain by engaging its mental faculties. Saleema Allana and Alexander Clerk (2018) agrees with this way of engagement, saying that meta-theory refers to broad perspectives, which make claims regarding the nature of reality.

1.8.1 Theoretical assumption

Scholars agree that research theories are always provisional, hence the theory of the role of rationality and the brain in Dogmatics is theoretically assessed, yet its effect cannot be fully attained as all experiments done can be challenged later on. Nonetheless, the theoretical assumption of this dissertation is that there is rationality in Dogmatics.

1.9 Methodology

1.9.1 Quantitative and qualitative methods

1.9.1.1 Description and role of descriptive method

In this study I have employed both qualitative and quantitative methodologies. Nonetheless, the descriptive research involving case study designs whose results have been processed in summative form and produce forms a concrete text explaining its findings has been utilized. The research have employed qualitative and quantitative methodologies because they responded to the underlying philosophical assumptions. These philosophical assumptions are ontological, epistemological, axiological and methodological. Creswell (2012) argues on the aforesaid, saying:

- Ontological (The nature of reality): Relates to the nature of reality and its characteristics. Researchers embrace the idea of multiple realities and report on these multiple realities by exploring multiple forms of evidence from different individuals' perspectives and experiences.
- Epistemological (How researchers know what they know): Researchers try to get as close as possible to participants being studied. Subjective evidence is assembled based on individual views from research conducted in the field.
- Axiological (The role of values in research): Researchers make their values known in the study and actively reports their values and biases as well as the value-laden nature of information gathered from the field.
- Methodology (The methods used in the process of research): inductive, emerging, and shaped by the researcher's experience in collecting and analyzing the data.

Sichamba *et al* (2018:4) confirms that qualitative research deals with the phenomenon that is difficult or impossible to quantify. This argument has helped to qualify the notion of the rationality being useful to Dogmatics. It is evident that this notion is not quantifiable as some arguments such as the role of memory in the brain anatomy. Sichamba offers that some arguments, which cannot be qualified, include beliefs, meanings, attributes and symbols. Sichamba also states that qualitative research methodology allows the researcher to have an in-depth understanding of human behaviour and reasons behind such behaviour. To achieve the means, this dissertation has utilized semi-structured questionnaire and interviews.

The quantitative methodology employed has a notion of objectivity in the outcome of the research. Sichamba *et al* (2018:5), quoting Fowler (1988), argued that in quantitative

methodology, which is mathematical, a survey does provide a numerical description of some fraction of the population through the collection of the process of asking people questions.

1.9.1.2 Motivation for the descriptive method

This is a non-experimental research, which has involved survey designs, producing the results in summative form in a concrete text explaining its findings. McBurney (2001:215) argues that a survey responds well to non-experimental research. The obvious reasons for this descriptive method agree with Creswell (2012), who says that such philosophical assumptions must be ontological, epistemological and axiological, offering realism, and the precision of the results while respecting the values, which go with this kind of study. All research methodologies must make comparisons and be able to evaluate the results responding effectively to the question. Sichamba *et al* (2018:20) offers that a research design must involve selecting the most appropriate methods and techniques to solve the problem under investigation. He further adds that descriptive designs used in large samples would involve survey methodology (2018:21). This research, however, has opted for a case study. Sichamba has argued that descriptive designs can be cross-sectional or longitudinal where time-series data tend to be collected. On a case study, Sichamba *et al* (2018: 22) argue that:

“Case study is used in small samples to build insight by testing hypothesis. A researcher in the case study approach entails an investigation that seeks to describe in detail a unit in context and holistically. Whereas a case in this context is a unit or individual or object that one intends to study or examine.”

This dissertation has reviewed sixty persons, making the research suitable for a case study. The main reason for this number of sampling is a strong desire to get the correct understanding of the challenge of the significance of rationality to Dogmatics. Additionally, this size works well when it comes to denominations, as they are equally assessed. This goes well with what McBurney (2001:382) states: "The most common descriptive statistics are those that concern the average and the variability of a set of data, and those that describe the degree of relationship between two variables." The two variables in this dissertation have been identified validating the need for this study.

Sichamba *et al* (2018:22, 46) state that there are three ways a researcher would undertake a descriptive research project, which are;

1. Observational – This method offers the researcher distinct ways of collecting data relying on people who say what they do, or what they think.
2. Case study - An in-depth study of an individual or group of individuals
3. Survey - A brief interview or discussion with an individual about a specific topic. It is a focused way of getting data.

1.9.2 Understanding the research questions

I allude to the importance of each question to bring out the difference, which is offered in answering the question about the importance of the rationality in Dogmatics. The research questions have also considered what McBurney has alluded to saying they must describe the degree of relationship between two variables. The first variable is the role of rationality and the second is Dogmatics, explaining the fact that Dogmatics depends on rationality.

- The first research question is to examine the historical overview on the background of brain theology (Neurotheology). This questions the historical overview of brain theology. The divisions of the theological seasons of the Early Church, Church in the Middle Ages and the Modern Church's theological understanding of the theme. This question has valued James B. Ashbrook (1984) who led the way in the study of neurotheology (David Glover, 2018). This shows that others have reflected upon this topic although their focus was different. In modern discourses, the work of Newberg (2010) does highly contribute to the historical setting of the dissertation.
- The second research question is to define and bring out the understanding of neurotheology. The very fact that this study draws strength from what is known as brain science and later on as coined by Ashbrook (1984) as neurotheology makes it important to consider this question. This dissertation is a discourse in Dogmatics, which has drawn its argument from the involvement of the rationality in Dogmatics. In addition, because of the modernity of this kind of study, it has become important to define neurotheology, validating the argument. It is as Neil Messer (2017:6), quoting Roskies, has argued; our brain defines us, while Michael Fuller has argued that the brain is a locus of so much that it is what is unique about human beings (Shakespeare, 2016:163).
- The third question is to examine the effect of the rationality in Dogmatics. The brain as a device of faith just like the heart and mouth must assessed on its effectiveness to learn dogma. The brain, which houses the mind, becomes a focal point of the debate that the sender has to have a sound mind as the receiver. If such is not attainable,

communication is incomplete. Therefore, the brain has an effect on learning of which dogmas and creeds are learned materials for the building of our faith.

- The forth question is to examine whether the image of God can be distorted by brain ailments. This question helps to examine the notion of whether persons who have acute brain ailments have their image of God affected. This argument seeks to understand what happens to people's religiosity when they are mentally ill. In Genesis 1:24 God created animals and other living creatures in their kind while creating huamnity in His likeness (verses 26, 27). The argument is that animals and other creatures are created after their own kind, while human beings are created not in their own kind but after the image of God before the Fall. Carey Latta (2018) brings in a balance on the debate of the image of God as he offers that, "it is doctrinal tenet by which Christians understand what it means to be human." The argument is strengthened by the argument of Tertullian that the image of God is a state of being and relating it to humanity's form (c.f. McGrath, 2007:360-361).
- The firth question is to examine whether persons with brain ailments can be taught doctrine. After having valued the theology of the image of God, it becomes important in this dissertation to consider persons with brain ailments being taught theology and even more so, dogma. The notion of competence emerges from this question. As such, a total understanding of the anatomy of the brain has been considered so that we can account for the notion of competence. Latta (2018) in this paper has valued the notion of innocence in persons with brain ailments.

1.9.3 Research instruments

According to Sichamba et al (2018:21), descriptive research becomes a suitable tool to undertake in such a research as it is crosscutting. The questionnaire, as supported by Singh Sidhu (2006:145), is an indirect data gathering, whereas the interview collects direct data and is vital to this dissertation. Singh Sidhu adds that adopting interview as a method offsets the limitations of the questionnaire. Research such as this can have many limitations, as some people do not hold a correct view of theology. Sichamba as earlier cited argues that a case study approach entails an investigation that seeks to describe in detail a unit in context and holistically.

1.9.3.1 The Questionnaire

A questionnaire is a series of well-articulated and leading questions researchers give to their respondents, soliciting their response. Sichamba *et al* (2018:38), however, acknowledges that there many types of questionnaires and that they are guided by purpose, size and appearance. Singh Sidhu (2006:145) points out the other challenge that comes with the questionnaire in its limit in data collection. Respondents can be unwelcoming and draw you back on a time when it comes to responses. The other thing is that respondents have some level of understanding in the subject matter, in this case, the contribution rationality offers to Dogmatics. On the other hand, respondents must also be in a position to read and write, often making interviews more appropriate.

Kasonde (2014) argues that different methods are better suited to different circumstance and questionnaires are no exception (Sichamba *et al*, 2018:38). Thus, my questionnaire has the following questions (see Annexure A):

1. What highest level of education have you attained?
2. Do you attend church?
3. What is the name of your church?
4. Are you baptized?
5. Are you a communicant?
6. Who is Jesus?
7. What is the church?
8. What does the church teach about God?
9. Do the teachings of the church help you improve your relationship with God?
10. What do you think is the role of rationality in learning the doctrinal teachings?
11. In three sentences only, outline what you learnt last Sunday.
12. Have you had any training in catechism?

The first question desired to attend to the fear that Sing Sidhu alluded that a questionnaire can be impeded by many limitations of which the obvious one is educational levels. While the second question addresses the levels of faith. Paul in Romans 10:17 addresses the motion of faith, while Hebrews 10:25 set the agenda of meeting together. My respondents had to have some levels of knowledge about God. They had to be church people. To further ascertain that they had to be baptized and confirmed Christians as proof that they have some minimum level of understanding of doctrine.

The questions that follow are the doctrines of Christ and the church with which respondents had to be tested. Some due to their mental state did not offer any responses to the questions, which is one of the valid aims of this research. There had to be a way to prove the concept of

competence. Memory has been assessed based on the question of what was learnt the previous Sunday. This type of questionnaire proves that this kind of study is important for theology today.

A questionnaire for church leaders was instituted to give this study a wide understanding of the role of rationality in Dogmatics. The following questions were employed (see Annexure B):

1. Do you have in your Diocese/Presbyter persons with special needs?
2. Why do they attend the church?
3. Does your church have a policy on persons with a mental disability?
4. Does their mental disability disadvantage them in acquiring doctrinal teachings?
5. Do you baptize persons with a mental disability?
6. How many have you baptized?
7. Have persons with mental disability in your church received any form of training in catechism?

The first question evaluates the Church leader's knowledge about the presence of persons with brain ailments in the church; the responses of which this dissertation has looked at. The second question has focused on ascertaining the reason why they attend church. The question may seem wide in scope as people primarily come to church for salvation in Christ. However, some do come to church because of family or sense of belonging. This question nonetheless seeks for the first proponent.

The third and fourth questions evaluate the policy line of the church. On policy in a general sense, the Roman Catholic Church's response becomes vital to this dissertation as it balances up the two main schools of theology, Catholic and Reformed. That is true also with the last question as its outcome informs the presence or absence of inclusive policy.

1.9.3.2 The Interview

Singh Sidhu (2006:145) has defended the usage of an interview as in his words, "it offset the limitations of the questionnaire". The interview has many advantages, as is a face-to-face tool for data collection. The researcher is given a chance to reason with the respondents in some cases and get a clarification much needed. Unlike a survey, interviews methodology takes few resources and allows the researcher to participate in the process of collecting data. For Sichamba *et al* (2018:40-41) the interview research methodology involves less technical issues

and they draw on a skill that the researcher already has. This becomes a valid argument for this research as many of the persons with brain ailments of whom are of interest to this dissertation are mainly none responsive. The ethical issues of consent were attended to at the time of interviews.

The latter questions in the questionnaire became a very important question in the interview and these were;

1. Who is Jesus?
2. What is the church?
3. What does the church teach about God?
4. Do the teachings of the church help you improve your relationship with God?
5. What do you think is the role of rationality in learning the doctrinal teachings?
6. In three sentences only, outline what you learnt last Sunday.
7. Have you had any training in catechism?

The aim and reason for asking these questions remain the same as they were in the questionnaire. Depending on the levels of mental capabilities of some respondents', the results in this study are indicative. On the other hand, the kind of interview that was undertaken was a one-onto-one in the presence of parents.

1.9.4 Target population

This study has been sampled based on a target group. Five Anglican Parishes in Lusaka Diocese and three Reformed Church of Zambia (RCZ) of Lusaka Province were assessed. In the interest of good output, three other denominations from amongst the Pentecostal Churches, Roman Catholic, Seventh Day Adventists (SDA) and New Apostle respectively were considered, thus cutting across theological paradigms and reaching a trustworthy analysis. The latter was the leaderships of the Church so that the quality of the research is balanced and well informed. This was guided by Sichamba *et al* (2018:26-27), who argued that a population refers to an entire group of persons or elements that have at least one thing in common, such as theology, which this dissertation considers as a common point.

The targeted population was, therefore, the Church memberships, particularly those subject to this study in Lusaka province. These are persons that are certified as having no mental challenges or deficiency in the ability of rational thought and those that have mental challenges and are lacking in the ability of rational thought, who were present in the churches and the policymakers.

1.9.5 Inclusion criteria

The inclusion criteria of this study are:

- That this study has been employed valuing language which is common to the respondents;
- That the respondents have been of all genders;
- That this study has not ventured into territories outside its goal; and
- Non-Christian participants have not been considered, as the focus is on Christian doctrine and Dogmatics.

1.9.6 Sampling method

Purposive sampling is what was employed as it is stratified and quota sampled group of persons and that it reaches targets a specific group well. In this sampling method, quotas were met from certain groups, and that this research had to stratify according to groups of persons certified as having mental challenges and the church leadership. Sichamba *et al* (2018:32), arguing on this method of sampling, said that the researcher who uses this type of sampling targets a group of people believed to be reliable for the study.

This sampling technique did increase the chances of obtaining samples that are representative of the targeted population. Sichamba *et al* (2018:32) added that it offers the much-needed power as the selected information is rich as it provides an in-depth analysis central to the study. Any information that was unnecessary to the study is well-taken care by the sampling methodology.

1.9.6.1 Sampling size

The sampling size was guided by the geographical landscape of Lusaka province, streamlined within the chosen town of Kafue. It has been guided by the geo-theological set up of Zambia and the most prudent numbers of samples have been sixty (60) samples, of which six (6) samples were from policymakers.

The characteristics this study was;

- The geographical area,
- The date of publication,
- The English language,

- The congregants that are certified as having no mental challenges and those effected with mental ailments,
- That the study has been conducted qualitatively and quantitatively.

In addition, that they have been included in the study

1.9.6.2 Sample techniques

A sampling technique is a procedure a researcher uses to obtain information (Sichamba *et al*, 2018:28). In addition, that the non-probability sampling methodology was employed. McBurney (2001:246) calls this type of sampling as purposive sampling. That means non-probability and purposive sampling is the same. They both refer to a survey that meets the chosen target group. In other words, it is not random, as the target is purposely chosen. Recruitment of participants was based on:

- a) The first group of participants were recruited based on their mental state as medically confirmed ill and lacking in the ability of rational thought;
- b) The second group of participants were recruited based on their theological persuasion and church background;
- c) The third group of participants were recruited from among church leaders who are major policymakers.

The process of obtaining information must have consent, however. Informed consent and all its ethical processes were upheld in this study. This process-involved competence to consent where it is void of a person due to the state of the mind, parental consent was sought. In any case, such consent was both verbal and written. The process was clearly explained to the subject or the representative (see Annexure C).

1.9.7 Location of the study

The geographic location of this study was Lusaka Province, which has a population of more than 5 million (Based on Ministry of Health 2018 demographic information on Lusaka). It is a metropolitan of Zambia and the Capital City cited centrally to the Republic. It is a plateau at an elevation of about 1,279 meters. The City of Lusaka uses mainly Nyanja as a day-to-day language, with Bemba spoken second. English is the official language for the Republic and the

city of Lusaka. However, the land belongs to the Soli People who are mainly found in Chongwe and the villages surrounding Lusaka. Herein the study being conducted in the Province of Lusaka has considered the town of Kafue as being part of the study. Kafue Town is 45km away from Lusaka and is a land of the Soli and Gowa people. As is generally the case in Zambia, many denominations are also present in this town.

1.9.8 Variables

McBurney opens this argument by stating that variables must be tangible (2001:118). Thus, the two variables in this dissertation are the role of rationality and Dogmatics. Sichamba *et al* (2018:9-10) argues that variables of any scientific experiment or research process, are factors that can be manipulated and measured. He adds that they are attributes or qualities of the cases measured or recorded such as gender, colour, and country and that they are accepted as such since they are changeable. Whereas, McBurney (2001:117) argues that some aspect of the testing condition can change or taken on different characteristics with different conditions. The argument offered in this study therefore of the role of rationality in Dogmatics becomes the first variable, because such a theory can be challenged and changed. Additionally, the consideration of dogmas and creeds equally becomes variables in this study.

On the other hand, McBurney (2001:117-120) alludes to some types of variables such as depended and independent variables, confounded variables, quantitative and categorical variables, as well as continuous and discrete variables (cf. Sichamba *et al*, 2018:9-10). Sichamba *et al* offer that the dependent variable usually depends on the independent variable. Is such a case, the dependent variable is the measurable outcome of the manipulation of the independent variable whose result is in the 'experimental design'. Therefore, in this study 'A *systematic theological inquiry into the role of rationality in Dogmatics*', the role of rationality becomes an independent variable, whereas Dogmatics becomes a dependent variable.

1.9.9 Data analysis

The arguments on how to analyze data have drawn their support from the arguments which Singh Sidhu (2006:289-290) and McBurney (2001:139-167) argued for. For Singh Sidhu, data analysis in summative form does explain the findings. He adds that such information may be spread throughout the chapters or it may be integrated and presented in one chapter. Singh Sidhu also argues that the quantity of the data analyzed depend on the arrangements in the

presentation. McBurney offers that analysis and summarization of data must be in a way that makes it possible to see the patterns that exist in them (2001:139). The patterns that McBurney argues for are the frequencies at which data occurs in raw form. Data tends forming a frequency something that was done when data was evaluated. The frequency of occurrence helps a researcher to get facts rights of which McBurney calls that frequency distribution (2001:140). Tables have been employed as means of data reduction.

1.9.9.1 Instruments to repute the study of the brain in neurotheology

The title of this dissertation is *A systematic theological inquiry into the role of rationality in Dogmatics*, and it is reflected upon the theological persuasion of the image of God. It is therefore very clear that the systematic theological analysis of this study makes it a dogmatic discourse. Else (cited by Carey Latta, 2018), argues that the image of God is the doctrinal tenet by which Christians understand what it means to be human. Tertullian's argument of the image of God is that it is a state of being and relating it to humanity's form (c.f. McGrath, 2007:360-361). Thus, any methods employed in such a study must cover systematic theology and be Scriptural.

The Scriptures that have been used presuppose to explain the understanding of the mind, heart and the brain as could etymologically be obtained. Neil Messer (2017:6), quoting Roskies, argued that our brain defines us, while Michael Fuller argues that the brain is a locus of so much that it is what is unique about human beings (Shakespeare, 2016:163). Freeman (in Shakespeare), however, expounded that neurotheology, which becomes a tool in this kind of study has pointed to it and that it is a physical substrate for mental and spiritual experience and the sense of personhood (Shakespeare, 2016:119). The argument is not on the doctrine of personhood but about the image of God. Newberg (2010) has offered that neurotheology becomes a tool to be used to undertake this kind of study. All the arguments that neurotheology can offer if they cannot find themselves in Scripture would make such a study secular.

1.10 Ethical considerations

McBurney (2001:53) addresses the issue of ethics by arguing that ethics in psychological research are historical trends in civil and human rights. He has also added that the Nuremberg trials of the Nazi war criminals led to a consciousness of the need for ethical controls in scientific research. What McBurney has offered in saying consciousness must be involved in scientific studies has been valued in this dissertation. I was conscious on the usage of terminologies so that the reader is not affected by the outcome.

David Rosenhan (2018, 1973) has argued that some of the terms used to describe the patients in hospitals can be perceived to some as offensive and degrading, i.e. 'insane' and 'abnormal'. It is on such basis that all the ethical usage of terms and concepts are valued.

As a point of emphasis, ethical issues of consent were taken care of. All clinical and neuroscientific studies must value consent. Lorell *et al* (2015) argue: "Informed consent is an essential element of ethical biomedical research, with federal regulatory requirements that are intended to ensure the autonomy of the research participant's decision to engage in research after a balanced discussion." In addition, those parameters of such consent were met.

This study has been approved by the Ethics Committee of the North-West University, as received an Ethics number (NWU-02100-20-A6). It carries a low risk level.

1.10.1 Permission and informed consent

According to Nijhawan *et al* (2013), informed consent is an ethical and legal requirement for research involving human participants. According to McBurney (2001:56-57) researchers must attend to APA guidelines, which requires that a researcher must enter into an agreement with the participant while clarifying the nature of his study so that voluntarism is promoted. As such, this study endeavoured to adhere to the ethical norms in research. Permission was sought from parents and guardians of the persons with brain ailments. Nijhawan argues further that research should be done in a language understood by the persons involved. Thus, in cases where participants are unable to converse in English, questionnaires were translated into a known Zambian language and the results translated back into English.

The following principles as proposed by Nijhawan (2013) were upheld (see Annexure C and D);

- a) A statement that the study involves research;
- b) An explanation of the purpose of research and the expected duration of the subject's participation;
- c) A description of the procedures to be followed and identification of any experimental procedures;
- d) A description of any foreseeable risks or discomforts to the subject, an estimate of their likelihood and a description of what steps will be taken to prevent or minimize them;
- e) A description of any benefits to the subject or to others that may reasonably be expected from the research. Monetary compensation is not a benefit;

- f) A disclosure of any appropriate alternative procedures or courses of treatment that might be advantageous to the subject;
- g) A statement describing to what extent records will be kept confidential, including a description of who may have access to research records;
- h) For research involving more than minimal risk, an explanation and description of any compensation and any medical treatments that are available if research subjects are injured; where further information may be obtained and whom to contact in the event of a research-related injury;
- i) Information on the amount of remuneration/compensation, if any, that will be provided to subjects;
- j) An explanation of whom to contact for answers to pertinent questions about the research and the research subject's rights (include the clinical center's patient representative and telephone number);
- k) A statement that participation is voluntary and that refusal to participate or discontinuing participation at any time will involve no penalty or loss of benefits to which the subject is otherwise entitled.

1.10.2 Anonymity

To uphold the ethical element of anonymity, Walford (2006) proposes that the individuals involved in a study should be treated to ethical norms and as such, anonymity should be respected. This has been done to protect the persons involved from all forms of danger. Walford states that a challenge is borne out of this thought, however, based on the assumption that anonymity is usually impossible to uphold and whereas it is undesirable to do so. Kennedy (2006) upholds this argument by challenging online articles that often do not uphold the right to anonymity.

1.10.2.1 Confidentiality

Karen Kaiser (2009) stresses that maintaining respondent confidentiality while presenting a rich outcome is a challenge in qualitative research. This is based on the amount of data obtained from tools such as surveys. She adds further that deductive disclosure also known as internal confidentiality has such challenges, as earlier stipulated, and is not void where a second part coming across the dissertation may have descriptive knowledge of the respondents. Nonetheless, this dissertation adhered to such available tools of confidentiality. The knowledge of the second person herein known as the reader of the dissertation who may assimilate the

dissertation to an individual, and this study shall not be held responsible for abrogating the norms of confidentiality.

1.11 Clarification of concepts

The keywords for this dissertation are “Brain, rationality, Mind, Neurotheology, *Katastasi-sm*, Neuroplasticity², hardwired³, philosophy and psychology”. Some of these terms come out as a hypothesis in this dissertation. Some form a base in the historical background of this study.

The brain is the most complex and largest organ of the human body made up of more than 100 billion nerves connecting and communicating with each other called synapses. It has an outer most layer called cortex composed of brain cells. The brain has the following main features; the brain stem, the basal ganglia and the cerebellum. The said three work together as a specialized unity. The brain is also divided into two hemispheres and four lobes. The four lobes are the frontal lobe, the temporal lobe, the parietal lobe and the occipital lobe. Of interest to this study are the parts that have some memory functions.

The mind is in the brain but, is not a specific area of the brain but rather that which makes us mention the activities of the brain. It is argued for that it is wrong in a speech to refer to the brain in speech as we would the mind. It is a term akin to brain activities. The complex part of the mind is that no one can point at it, yet it is there. This and other arguments have drawn this dissertation on dualism and other such theories that seek to make us understand the mind and its work.

Neurotheology is a new science of the brain and theology is a scientific understanding of rationality and the brain as it relates to theology. The brain is not just the organ for thinking, but faith as well. The brain becomes a vital organ for the building of faith and rationality in Dogmatics. It is therefore offered in this dissertation that there is a relationship between the brain and theology, thus neurotheology becomes the vehicle through which a comprehensive study about this relationship is being done. It is also offered that the integration of brain science and theology makes us understand who we are.

²Neuroplasticity offers that our brain's ability to selectively transform itself in response to experiences during our life time through neurons and synapses

³Basically, that the brain has a set of cognitive functions which remain unalterable for the rest of our lives

Rationality is a state of being rational not akin to *katastasi* as rationality is argued for biased towards being rational. It involves being able to reason well or bringing out the faculty of the brain that prompts a sound mind. Rationality is akin to competence though both words denotes ability focusing on reasoning. The English dictionary denotes that it is the quality of having a clear thought and reason. The notion of rationality has found a lot of argument in economics where Allan Schmid (2002) argues: "The concept of rationality provides the link between the objective of profit maximization and the production function specifying the relationship between inputs and outputs when prices are attached." Objectivity though is crosscutting as theological discourses demand objectivity. This is both at inputting and outputting making a discourse complete.

Katastasi is a Greek word means situation, condition and status. This dissertation, having noticed a gap in the debate of the brain in theology, has come up with an understanding that the brain has a status or state of being. The argument of competence and rationality depends on the argument of the state of the brain. Therefore, *katastasi* directly translated in this dissertation is state or status pointing to the condition of the brain. This remains a hypothesis attempting to explain the state or status of the brain. It is in this submission that I seem not to have found this argument in theology and psychology.

Neuroplasticity is the ability of the brain to form and reorganize synaptic connections. Science offers that neurones do regenerate and prone as we grow. The brain does not just reorganise itself but renews itself by forming new neural connections through a person's life. In regeneration, the neurons compensate the injured or dead nerve cells. It is known as brain plasticity and that it is capable of changing when prompted to remembering (c.f. Schwartz, Begley 2009:99). What is important to know is that when a deed is done regularly the pathway of the activity in the nervous system strengthens forming new memories. This does defend the notion of indoctrination, as it is dogma taught regularly for purpose of forming belief.

Philosophy is the study of the fundamental nature of knowledge, reality, and existence. Philosophy is also a theory of attitude that acts as a guiding principle for behaviour. In other words, philosophy explains human behaviour and conduct. Philosophy focuses on beliefs, faith, convictions, ideology, ideas, principles and ethics to mention a few. It also focuses on thinking and attitudes, which informs this study. The very fact that philosophy looks at doctrinal tenets makes it varied to be included in this study.

Psychology is the scientific study of the human mind and its functions, especially those affecting behaviour and that it is the mental characteristics or attitude of a person or group of people. It is the study of the man's mindset, mental processing, thought processing and way of thinking. It can also refer to the frame of the mind and persona. The argument of the study of

the human mind agrees very well with the question this dissertation seek to answer. Psychology as a field of study does uniquely inform theology and strengthens the arguments that neurotheology offers. The paradigm of this dissertation is that the brain has much more to offer to theology than just the mental processing as the state of the brain matters, as well in processing of data. Nonetheless, the proceeding chapter first draws in the historical factor of this study.

CHAPTER 2: THE HISTORICAL BACKGROUND OF BRAIN THEOLOGY (NEUROTHEOLOGY)

2.1 Introduction

In this chapter, I have considered the divide of theological seasons of the Early Church, Church in the Middle Ages and the Modern Church's theological understanding of the theme of this study. What is important to note is that this study is important in informing theological discourses just as other scholarly works in psychology and philosophy have done. It is important also to point out that other theologies such as Islamic studies are somewhat ahead of Christian theology in this study. As earlier stated, David Glover (2018) argues that James B. Ashbrook (1984) led the way in the study of neurotheology. Having studied neuroscience and theology, he took what he learned from his study of neurology and moved beyond and through the science to theology by way of analogy. Glover noted that Ashbrook unveiled the ground breaking studies correlated the structure of the brain to our understanding of God. What is import to echo on is that rationality emanates from the brain. We reason based on the state of our mind.

2.2 Neurotheology in the Early Church

Not much that we can argue from this era points to a theology of the brain and rationality the way we understand it today. This could be both historical and cultural. The cultures of the Ancient Near East (ANE) collectively seem to have had little or no knowledge of the brain. For them, the whole world meant their immediate surroundings, visible to them and known by them. That would not mean that we are wrong to have discovered the difference to their worldview, moreover, knowledge has now increased more such that we know that man does not use the heart to refer to rationality, but rather the brain.

It is the Apostle Paul who stated that: "Do not be conformed to the pattern of this world, but be transformed by the renewing of your mind. Then you will be able to test and approve what God's will is, his good, pleasing and perfect will" (Rom 12:2). Paul's usage of the word *nous* (νοῦς or νόος) (mind - intellect or intelligence) does show us what the earliest view of the Church was. Paul knew that the intellect most appropriately of the brain is contaminable. Paul also employs a plural form *noemata* (νοήματα), which denotes a mental perception and thought (cf. 2 Cor. 3:14; 4:4). However, *noemata* is different with what Peter employed in 1 Peter 1:13 (*dianoia* - διανοίας), although it conclusively means the organ for thinking (c.f. Matt. 22:37). Paul also in Colossians 3: 2, states that set your minds on things above, not on earthly things. The word

phroneo Paul uses denotes having understanding. His understanding was that besides the *kardia* there was a *phroneo*, which involves the faculty of thinking and that we ought to use it on the things of God. (c.f. Phil. 4:7; 1 Cor. 2:16). The theology of Peter and Paul therefore, demonstrates that the Early Church must have been aware of the faculty of thinking other than the *kardia*. It may have been difficult for them to demonstrate the availability of the brain as scientific knowledge was then still primitive.

The period that was to follow, however, has great theologians and historians of the likes of Clement of Rome, Ignatius of Antioch, Polycarp of Smyrna, Justin Martyr; Irenaeus of Lyons, Origen and Eusebius, who did not reflect on the theology of the mind and the brain. In addition, we should consider on this list, Tertullian. Their focus was to deal with issues of the day such as the doctrine of the Trinity and the doctrine of Scripture, which emerged during their time.

2.3 Neurotheology in the Middle Ages (Medieval time)

The Medieval time saw the emerging of theology as propounded by theologians and philosophers like Aristotle and Plato who lived in the Ancient Greek World. Thomas Aquinas is as such a person who employed their works. Plato, according to Fowler (1952:201) spoke of the mind and wisdom. Plato offered views on sciences, arts and that true opinions border on pure pleasure. It is clear that in spite of the situation Plato found himself in, he already did relate with the mind, science, art and pleasure. Long (1974:53) points to the Epicurus who viewed external images as influencing the sensory organs. This reference of the sensory organs becomes a cursor of modern thinking in neurotheology. Long (1974:52) argues of *anima* (the irrational part), in that the Epicurus did not know the nervous system. He adds that the notion of the brain must have been accepted equivalent to the *animus*. Newberg and Halpern (2018:23) argue that both Plato and Aristotle regarded the soul as the essence of the human being, while Plato considered the soul to include reason, emotions and desire

The theological argument on the brain in this era was mostly the localization of mental faculties in organ's ventricles ascribed to Aristotle. Galem (1541), who acted as the source for this argument, adds that this era's argument was about the first cell or small room getting its input from sensory organs, whereas the second or middle cell functions cognitive processes such as reasoning, judgement and thought. Newberg (2010:11) noted that St. Thomas Aquinas provided an important perspective on the human mind in that he considered all healthy, rational action to proceed from the desire to achieve a good or to pursue an end. Humanity's end is ultimately for a union with God as he finds the truth. Newberg adds that for Aquinas, the evil mind then results

from an individual who pursues ends that do not lead toward God. Nevertheless, Aquinas engages the issue of human biology and the mind more directly by distinguishing between the '*actus hominis*' and the '*actus humanus*'. This was all about will or intent with the knowledge or without knowledge.

Zizioulas (1985:28) alludes to the Aristotelian philosophy, which had an emphasis on the concrete and the individual. This philosophy's focus was on the continuity and eternity of humanity, however, what Zizioulas wishes to critic is the inability of philosophy to provide permanence and the continuity and eternity. Interestingly, Zizioulas points to the ontological impossibilities found in the Platonic thought of the person. The human being, as an individual, has parts that influence theology. It is parts such as the mouth for confession, the heart for faith and the brain for doctrine and knowledge about God. However, the argument offered by Zizioulas is that the reason for all this is in the inability of the ancient Greek philosophy to endow human individuality with permanence (1985:29).

Francis Click (1995) nonetheless offers another argument that Plato's perspective was on the living person as being an embodied soul whereas the dead person was a disembodied soul' thus the Christian Church becomes the heir to both approaches (Freeman, 2016:115). Francis Click (1995:3) in his argument stated that senses of person's identity and free will are more than behaviour of a vast assembly of nerve cells and their associated molecules, while Lewis Carol phrased it, saying: "You are nothing but a pack of neurons" (Freeman, 2016:115, 122). Thomas Aquinas (1226-1274) re-echoed the work of Aristotle in his writing of the Christian doctrine. Freeman (2016:116) noted that Aristotle's focus was on the functional state of the body enabled by organisms. In spite of scientific knowledge being limited, Aristotle was way ahead of his time by focusing on the functional aspect of the body, which is of interest to neurotheology. Freeman, however, adds that for Aquinas, the mental activity involved no bodily process or change; so, by engaging in thinking, the human soul is different from the souls of plants and animals reflecting the doctrine of the image of God.

2.4 Neurotheology in the Reformation and post-Reformation period

This era is quiet on this debate. It is, however, acknowledged to be subjected to the influence of Platonic soul. Hallett (1991) acknowledged that John Calvin's view is from his view on the image of God. The understanding of the image of God means the rational element held by human beings not present in animals and other created beings. That rational element is of the faculty of the brain. Nonetheless, Hallett argued further that Calvin insisted on the goodness of matter in

the body and the material world, as was the case with Platonism. The Calvinist emphasis was on the root of sin, which dwelt in the soul/mind noted Hallett (1991). Newberg (2010:13) upfront points to Friedrich Schleiermacher (1768-1834), who defined "religion" as switching from a doctrinal emphasis to a more cognitive, visceral, or intuitive one. Nonetheless, Schleiermacher did define religion as a "feeling of absolute dependence". What is important to note from his view is that doctrine draws understanding from the cognitive, visceral and intuitive.

Newberg (2010:81) narrates that Martin Luther's view was that he did not work well than when anger motivated him. He noted that Luther argued: "When I am angry, I can write, pray, and preach well, for then my whole temperament is quickened, my understanding sharpened, and all mundane vexations and temptations depart". The American theologian, Jonathan Edwards expanded on the importance of emotions in religion in his work, *Treatise on Religious Affections* (Newberg, 2010:81). He argued that both emotions and reason play a role in the true conversion to Christianity. Since the turn of the 20th century, scholars began to devote themselves to the phenomenology of religion on its own terms. However, Newberg's understanding is that Martin Luther (1483-1546) would not allow believers to be completely free before God (2010:70-71).

Another great amongst them is William James (1842-1910) living at the turn of the last century. Newberg (2010:13) has acknowledged James's work. In the book *Varieties of Religious Experience*, James considers the different forms that religion takes in terms of how human beings experience the spiritual, noted Newberg. James certainly emphasized subjective experiences and considered the assortment of such experiences ranging from the more traditional to the more exotic and mystical. While James' analysis did not specifically relate the religious experience to particular brain functions, this most likely was due to the lack of general knowledge that existed within the scientific community of how the brain worked said Newberg.

2.5 Neurotheology in the Modern Period

A lot has happened in the field of theology in the modern period. The issue of the mind has extensively been discussed in philosophy and psychology. Theology has often shied away, yet is very informative and constructive when it comes to thought and behaviour. The status of the brain has only been extensively studied in the medical fields arguably influencing both philosophy and psychology. Theology has to take advantage of the information available to inform itself. Thus, Newberg (2010:107) argues that "Neurotheology will most likely be considered in a similar framework since it can provide beneficial information regarding

spirituality and religion or it might provide results that run counter to religious doctrine.” Newberg adds that it is important to recognize the religious perspectives on science. This is also crucial for the adequate interpretation of neurotheological findings.

Newberg (2010:14) argued that Paul Tillich a twentieth-century theologian has had a substantial impact on neurotheology scholarly. Newberg states that Tillich begins his *Systematic Theology* by discussing the definition of religion as pertaining to "ultimate concerns". He also adds that the sources of systematic theology are ancient texts, Church history, and the history of religion and culture. However, religious experience is a conduit through which the sources of theology is presented to individuals making this study important in that religious experience depends on the participation of a healthy brain for rationality. Nonetheless, this recognition of the experiential aspect is critical to the understanding of theology and the development of the norm of theology noted Newberg (2010:14). Interestingly though Newberg (2010:14) exonerates Tillich saying that the cognitive neurosciences were not yet available to be incorporated into his analysis of the interrelationship between the sources of theology and the experience of religion.

However, Brandt *et al* (2010:306) and Newberg (2010:14) point to some of the earliest scholars who explored this issue, such as Eugene d'Aquili (1941-1998) and James Ashbrook (1925-1999). Their pioneering work in the 1970's and 1980's ultimately laid the foundation for the work of more recent scholars such as James Austin, Rhawn Joseph, Mario Beauregard, Patrick McNamara, and others. Most recently, Spurway (2009) in his introductory page stated that growth in the theological knowhow on the essence of the mind began in the year 1972 as he points to Rev'd Dr Arthur Peacocke (1975) whose contribution on the topic focused on the interaction between theology and science. This interaction becomes of value when it focuses on both the status of the brain and the ability of the mind to deliver.

Nonetheless, others like Steven Mithen (1996) have dwelt on the understanding of the prehistory of the mind (Spurway, 2009:1). This agrees well with the view of this debate on the historical understanding of the notion of the mind to theology. Mithen's argument, nonetheless is to archaeology as he says that it is what archaeology and palaeoanthropology can tell us about the origins of science, art and religion in human pre-history. Others, like Rogers Trigg, whose focus is on a dualistic view of the mind-body, Sir Charles Sherrington, a neurophysiologist who showed how the mind leverages on matter, and Jeremy Law, can earn respect in the current debate. Above all, a Neurotheologian, Dr Andrew B. Newberg (2010) is to be included to the modern debate on the brain by reviewing his writings entitled *Principles of Neurotheology*. Joseph LeDoux (1998, 2003) also has offered a notable contribution to current debates.

When it comes to cognitive neuroscience, Newberg states that it has generally been determined that the frontal lobe is particularly important in the establishment of wilful behaviour. Paying attention to a particular task activates the frontal lobe. Research has also shown that the frontal lobe becomes active during a variety of practices such as prayer and meditation the research ably conducted by Newberg (2010:70). It is also interesting that the frontal lobe in addition to controlling the initiation of movement and language are critical for regulating our emotions. Several studies have suggested that the frontal lobe might be the seat of compassion in addition to their function as the seat of the will. Two particularly important perspectives may be related to wilfulness, concluded Newberg.

However, we need to define neurotheology if this study will be valuable to theology. Discussions on the notion has been across all theological eras, yet not defined. It is only in the modern era that theologians such as Dr Andrew Newberg, Stephen Lammers and Michael Fuller endeavoured to bring out its meaning. Therefore, the discussion following is focused on addressing the meaning of neurotheology.

CHAPTER 3: DEFINING AND UNDERSTANDING NEUROTHEOLOGY

3.1 Introduction

The understanding of the brain in neurotheology is not just about the cerebrum, cerebellum and the brain stem, but its mental faculties and state as well. Neil Messer (2017:6) quotes Roskies, who argues that our brain defines us, while Michael Fuller offers that the brain is a locus of so much that it is what is unique about human beings (Shakespeare, 2016:163). Fuller adds further that it may seem logical for naturalistic accounts of religion to focus on the operations of that particular organ. In this dissertation, this becomes the first standpoint. Freeman, in Shakespeare, however, expounded that neurotheology points to a physical substrate for mental and spiritual experience and our sense of personhood (Shakespeare, 2016:119). Kanto (1947) propagates on theology and science in his psychological hypothesis that the brain causes behaviour (Delprato, 1979:409). My linking factor to this argument is that rationality emanates from the mental faculty and that it is a quality or the state of being in tandem with reasoning, which covers belief and practices. For Brandt *et al* (2010:305), neurotheology is a neuroscientific study of religious phenomena beliefs, behaviour and practices adding further that it is a neurologically informed theological reflection. This comes out different from psychology.

Moreover, the general definition of psychology is that of the scientific study of the human mind and its functions, especially those affecting behaviour in a given context or the mental characteristics or attitude of a person or group. This definition is not void of the acquisition of information, which makes the mind functional. We draw an example from the computer whose value is only important when programmed. Neurotheology seeks to cover the gap psychology has created. There are to neurotheology the virtues of theology, which are not present in both psychology and philosophy. The information acquisition in human beings has a holistic understanding in the processing and the output (functionality and cognitive processes). Thus, the initial delineation of the mind and brain is of crucial importance stated Newberg (2010:23).

Reichenbach *et al* (1995:10-39) argue that science holistically bears a special aura in our culture and that to be scientific is to be objective. Theology as a science does earn space in this argument, whereas neurotheology would be one of the tools of the trade. How can one account for organs such as the human brain that have capacities far beyond what animals use, asked Reichenbach (1995:24). Furthermore, Reichenbach (1995:251) argues that the major link between genes and behaviour is the brain. Stephen Lammers *et al* (1987) discusses this topic from a human perspective and the beginnings of personhood and its theological consideration. Neurotheology taps into such arguments as it provides the basis.

Newberg (2010:23) argued that in Ancient Greece philosophy, it was not entirely clear where human thought and cognition took place. He adds that the derivative of the word "neuron" appears to come from the Greek and Latin words for "sinew" or "string," most likely because this is what nerves physically look like. The question of the brain is not just a subject of science but that of the Christian faith as well. Davis (2006:9) thinks that the embryonic human view by the Jewish text can teach us a lot about the lack of the word "brain" in their texts. The word "brain" does not come out as it should be in Scripture, but that does not suggest that Christianity and its parent Judaism did not make mention of it.

Collins (1995:15-23) argues that Creationist scientists insist that the Bible is infallible and that it must be interpreted literally in regard to application in science. This notion of literal interpretation cannot be absolute as words like "mind", "soul"; "heart" and "thought" in Scripture are broad, yet some of them do mean or refer to the brain. The following Scriptures are good examples; "heart" in Proverbs 4:23 (KJV) means *leb* in Hebrew, whereas "heart" in Luke 6:45 (ESV) means *kardia* in Greek. In Philippians 4:7 (ESV) the word mind here means *humon* or *noema*, while in Heb. 8:10 (NIV) minds means *dianoia* while in Romans 8:6 (ESV), the word 'minded' means *phronema*. It would be inappropriate to think of these words otherwise.

Valuing etymology the words 'mind' and 'heart' cannot be taken for a single interpretation as that would reduce the ethos, pathos and logos of the biblical passages. Let us take for example *nous* translated as 'the mind comprising the faculty of perceiving and understanding, feelings, judging, determining and intellect, whereas *phroneo* denotes to have understanding, to be wise, to feel; to think, to seek and to strive for. *Dianoia* does mean the faculty of understanding, feeling, and desiring. For the Christian faith, these words are subjective and would mean as used in a passage, thus, the understanding of the brain is from the explanation of the existence of the mind.

The above position has its critics in Graham (2001) who says: "There is a false idea about the spirit and soul of man. Similarly, on the belief that the human mind and soul is the fleshly brain." However, thinking takes place in the mind and not the heart biologically. This is defended by focusing on the following Scripture:

"And you, Solomon my son, know the God of your father and serve him with a whole heart and with a willing mind (*Nephesh*), for the Lord search all hearts and understand every plan and thought. If you seek him, he will be found by you, but if you forsake him, he will cast you off forever" 1 Chronicles 28: 9 (ESV).

Nephesh here would mean soul, self, creature, person, appetite, mind, living being, emotion or passion, therefore which of these English words would be appropriate for use? The most appropriate word would be soul or mind as that returns the true meaning of the sentence. Black (2013) argued that Paul encourages us "to take captive every thought to make it obedient to Christ" (2 Cor. 10:5). Why must we take our thoughts captive? The Jewish thinking is as Solomon said, "As a man thinks in his heart, so he is" (Prov. 23:7). Additionally, the word for mind in 2 Corinthians 10:5 is *noema* which is in Hebrew *nephesh* to mean mind, desire, or emotions. Therefore, this dissertation does use the word mind as it implies in those passages where it means thinking, intellect and understanding as such relates to the human brain.

On these grounds, Newberg (2010:23) offers that Aristotle believed that human thoughts and feelings arose from the heart. This thinking seems to be consistent with the Jewish understanding (cf. Prov. 4:23; 23:7). The Eastern school of thought has a more holistic approach to the understanding of the human body and mind. They consider the integration of the entire body with the mind (Newberg, 2010:23). Newberg added that the reflection is in their explanation of the body's energy, which has many different centers and flows throughout the body whereas consciousness is a form of energy that permeates the universe.

Michael Fuller argued that such terms as offered in the Bible do refer to the human brain, he continues by saying;

"Religion may be considered to be like a virus, which parasitizes the brain. Religion beliefs come about through certain kinds of the brain activity, which are part of our evolutionary heritage, rooted in evolutionary history and that religious activity, such as prayer or meditation, gives rise to or correlates with events in the brain, which can be monitored and described through scanning techniques" (Shakespeare, 2016:163).

Thus, Newberg (2010:23) argues on the notion of consciousness, which the brain does not create, but the brain can "tap into" the vast universal consciousness that underlies all of reality. This, according to Newberg, puts the understanding of the mind, and consciousness to be more holistic than the Western thought. What Newberg has done is to draw a wage between the mind and the brain when he says that the mind represented the more ethereal and the brain the more material also as viewed in the Eastern perspective, which links the mind and brain, making it much more acceptable.

To emphatically draw a wage between the mind and the brain though would bring neurotheology to a world of the unknown as the mind links to reasoning as housed by the brain. This goes well with his definition when he offered that the mind is the functional attribute of the

brain (Newberg, 2010:23). This functional element does include agreeable thoughts, feelings, and experiences. Newberg further states that these functions are less tangible as they are not measurable other than by obtaining a first person's account of thoughts, feelings, and experiences. Seeing as the brain is a valuable organ to theology, it is prudent to assess its rational role in Dogmatics.

3.2 The Jewish understanding of the brain (Old Testament)

It is prudent to ask ourselves as to why the Jewish people seem not to have accounted for the brain in their theology while they do so with other parts of the body (C.f. Matt. 5:29; Matt. 6:22, 23; Matt 15:17; 1 Cor. 12:14-23). This dissertation does argue that the Jewish view of an organ for thinking is the heart (*Leb*) (C.f. 1 Kings 3:12). Daniel Goodman (2013) thinks that the Jewish people in contemporary mainstream Orthodoxy presupposes an omniscient, all-knowing God who authored both the Bible and science as their theological viewpoint. Nonetheless, we can only understand the Jewish people well by researching their theology more and finding their arguments. Thus, arguing on this notion may be challenging, as the Jewish people are both a people and a religion manifested in Judaism. Newberg and Rabbi Halpern (2018:9) have offered that the Jewish people have three attitudes, that of a rational group, indifferent group and the spiritualistic group. In modern Judaism, this would inform them of the understanding of the brain or its absence in their theology.

Barbara Binder Kadden's (2019) argues that the first theological reflection in Judaism found in *Pirkei Avot* 6:6, reads:

“The Torah is greater than the priesthood and royalty, seeing that royalty is acquired through thirty virtues, the priesthood twenty-four, while the Torah is acquired through forty-eight virtues”

On the other hand, Kadden (2019) argues that *Binat HaLev*, translated as “an understanding of the heart” and the word *binat*, comes from the root word *bet-yod-nun* to mean, “To understand or discern,” and *lev* means, “heart.” Kadden goes further to draw the conclusion from 1 Kings 3: 12 which say, “... I have given you a wise understanding heart ...” (NKJV). What Kadden argues for can generally be the view of the spiritualistic group. The standpoint of view in this argument is orthodoxy.

The hypothesis that Newberg and Rabbi Halpern, (2018:9) and Kadden (2019) offer has its critics in Erich Fromm, who argues that it is recognized adherently that Eastern religions never

conceived a religion as a rationalistic enterprise that contains accurate descriptions of nature, and therefore never felt compelled to reconcile science with religion (Goodman 2013). This argument can also be supported by Neil Gillman, who explains how medieval Judaism's encounter with the ideas of rationalistic philosophy, and Maimonides's subsequent attempts to render Judaism in the light of this foreign idiom. This argument has its tenets in the understanding that the Jewish people accounted for bones such that chapters and analogues about them are in Scripture (c.f. Gen. 2:23; 50:25; Ex. 12:46; 13:19; Num. 24:8; Josh 24:32; Ps. 22:14; Ezek. 6:5; 37: 1ff etc.), yet not even a single verse is found on the brain.

Daniel Goodman (2013) argues that the circular logic by which the Scripture is the source of scientific knowledge. He goes further to draw his argument from *The Science of Torah*, which offers that, "The Torah is a perfect description of all existence because it is the root of existence ... Everything, from the orbits of planets to the shape of a fig leaf, from the dynamics of tornadoes to the markings of a leopard, has its source in the Torah." Daniel Goodman' (2013) strength on this argument comes from Rabbi Sacks, who noted that Heschel argued for some form of partnership between science and religion. This would agree with what Newberg and Rabbi Halpern (2018) argue for, in that the Jewish people are open to understanding the scientific role it offers to theology. Talking about the brain is being scientific.

Thus, as this dissertation has argued for the ethos, pathos and logos of Bible passages, God is seen to have emotion and can be seen doing so in Scripture. That does agree with the work of the occipital lobe (C.f. Deut. 7:7-8; Is. 43:4; Hos. 11:1; Ps. 103:13; Ex. 5:13; 22:24) The whole argument is metaphorical though as God is Spirit and does not need any experience of either anger, happiness, love and any such emotions as man does. That would reduce God to a mere man. What the Old Testaments and other such passages in the New Testament have done is to show the humane side of God, which makes Him able to relate with us.

Finally, Newberg and Rabbi Halpern (2018:12) argue that if one wants to study the understanding of neurotheology in Judaism, they should employ both view of spirituality and scientific (rational) perspectives. For them, this balances up the argument on the Jewish theology on the brain and mental faculties.

3.3 The New Testament's view on the brain

This proceeding argument may not be lengthy but is important to evaluate the notion of the brain in the New Testament. This is because the New Testament Church is both Jewish and

Gentile. There could have been the Gentile influence in Judaism. Alternatively, that the Jewish people could have come into the New Testament Church with both the Orthodoxy and Spiritualistic view of Judaism. The Greek view is as written in the New Testament. It is, however, important to look at it separately to Jewish theology because much of it is in the Old Testament. Lois Tverberg (2018) argues that Jesus lived in a society that was deeply familiar with Scripture; Jesus' audience would have found his usage of parables based on the biblical text persuasive. Jesus was a reformer of the Jewish faith and parables came in handy. John Hargreaves (1979:1) argues that parables are like bright beams of light. He adds that through them we see our God. What is fundamental is that we see God through the opening of our minds. Parables provoke thinking.

Lois Tverberg (2018) argues: "Jesus often based his reasoning on experience rather than if-then logic." He adds that He did this in multiple ways: However, the Hebrew Scriptures often lurked within the parables that appear biased on the natural world. For instance, consider Jesus' parable about the lilies:

"Consider the lilies of the field, how they grow: they neither toil nor spin, yet I tell you, that even Solomon in all his glory was not arrayed like one of these. But if God so clothes the grass of the field, which today is alive and tomorrow is thrown into the oven, will he not much more clothe you, O you of little faith?" (Matt. 6:28-32)

The quoting of Isaiah 40:7-8 and 23-24 by Jesus open up the debate that religion lives within the tradition it encounters, as well as the tradition it finds itself in. Jesus' usage of parables seems to value the work of the brain's frontal lobes and the temporal lobe. He seems to have also valued the notion of neuroplasticity in the brain, as it is capable of changing when required to do so. A classic example is in Matthew 6, which offers a change in mental and ethical conduct in the lives of the Jewish people. Apostle Paul in Romans 12:2 argues on the renewal of the mind, which is mainly of the faculty of reasoning and perception. Apostle Paul knew very well that the mind-brain often needed to be renewed (c.f. Eph. 2:3; 4:17, 23; Philippians 3:16). In addition, of interest to this dissertation is Colossians 2:18 in which Apostle Paul uses the two words "fleshly mind". The Apostle's usage of the word *σάρκός* (*sarkos*-flesh) and shows the material mind (brain). Thus, therefore what is material to the mind is the brain. The usage of the word mind in the New Testament seems to have been consistent by not only Apostle Paul but Apostle Peter as well (C.f. 1 Pet. 1:13; 3:8; 4:1, 7; 2 Pet. 3:1). However, the Jewish notion is visible in Deuteronomy 6:7, which say, teach your children all the time or repeatedly.

3.4 Conclusion

To define and understand neurotheology is very important to this dissertation. We have learnt that the brain in neurotheology is not just about the cerebrum, cerebellum and the brain stem but its functional purposes and state. Neil Messer (2017:6) has offered that our brain defines us while Michael Fuller alluded that the brain is a locus of so much that it is what is unique about human beings (Shakespeare, 2016:163). While the general definition of psychology is that of the scientific study of the human mind and its functions, especially those affecting behaviour in a given context or the mental characteristics or attitude of a person or group. As has been noted, this definition is void of the acquisition of information, which makes the mind functional.

We have also learnt that the holistic understanding of human beings made in the image of God be streamlined through information acquisition, processing and the output (functionality and cognitive processes). Thus, the initial understanding of the mind and brain is crucially importance stated Newberg (2010:23). Reichenbach *et al* (1995:10-39) have argued that science holistically bears a special aura in our culture and that to be scientific is to be objective. Stephen Lammers *et al* (1987) discuss this topic from a human perspective and the beginnings of personhood and its theological consideration. Neurotheology taps into such arguments as it provides the basis.

Notably, the question of the brain is not just a subject of science but that of the Christian faith as well. Davis (2006:9) has argued that the embryonic human view by the Jewish text can teach us a lot about the lack of the word brain in their texts. The word brain does not come out as it should be in Scripture, but that does not suggest that Christianity and its parent Judaism did not make mention of it. An example from Proverbs 4:23 (KJV) where the heart is translated from Hebrew word *leb*, whereas “heart” in Luke 6:45 (ESV) means *kardia* in Greek. In Philippians 4:7 (ESV) the word mind here means *humon* or *noema*, while in Heb. 8:10 (NIV) minds means *dianoia*, while in Romans 8:6 (ESV) the word ‘minded’ means *phronema*. It is inappropriate to think of these words otherwise.

Valuing etymology, the words ‘mind’ and ‘heart’ cannot be taken for a single interpretation as that would reduce the ethos, pathos and logos of the biblical passages. An example of *nous*, which translates as ‘the mind comprising the faculty of perceiving and understanding; feelings, judging, determining and intellect has come out as proof. Whereas *phroneo* denotes to have understanding, to be wise, to feel, to think, to seek and to strive for. *Dianoia* does mean the faculty of understanding, feeling, and desiring. For the Christian faith, these words are subjective, and would mean as used in a passage, thus, the understanding of the brain is the explanation of the existence of the mind.

Newberg (2010:23) has argued on the notion of consciousness, which the brain does not create, but that the brain taps into the vast universal consciousness that underlies all of reality. This according to Newberg puts the understanding of the mind, and consciousness to be more holistic than the Western view. The argument that Newberg has offered draws a wage between the mind and the brain as he says that the mind represented the more ethereal and the brain the more material also as viewed in the Eastern perspective, which links the mind, and brain making it much more acceptable.

The other question in this chapter which we have answered is that of the Jewish people not accounting for the brain in their theology while they do so with other parts of the body (c.f. Matt. 5:29; Matt. 6:22, 23; Matt 15:17; 1 Cor. 12:14-23). This chapter has indicated that the Jewish view of the thinking organ is the heart (*Leb*) (C.f. 1 Kings 3:12). Daniel Goodman (2013) thinks that the Jewish people in contemporary mainstream Orthodoxy presupposes an omniscient, all-knowing God who authored both the Bible and science as their theological viewpoint. We have noted that we can only understand the Jewish people well by researching and finding out their arguments, making arguing on this notion challenging, as the Jewish people are both a people and a religion manifested in Judaism. Newberg and Rabbi Halpern (2018:9) have argued that the Jewish people have three attitudes, such as of a rational group, indifferent group and the spiritualistic group. In modern Judaism, this would inform them of the understanding of the brain or its absence in their theology.

This argument is supported by Neil Gillman, who explains how medieval Judaism's encounter with the ideas of rationalistic philosophy, and Maimonides's subsequent attempts to render Judaism in the light of this foreign idiom. The obvious foreign idiom is the notion of the absence of the brain in Jewish theology. The Jewish people seem to have been shy to advance the understanding of this notion or its presence. Gillman defends his argument in this dissertation by referring to the Bible and in rabbinic literature. Whereas Newberg and Rabbi Halpern, (2018:9) who are the proponents of the positive view on the notion of the brain in Judaism, have argued that Judaism does accept the scientific narrative than other religions. Newberg and Rabbi Halpern stressed that the difference comes in based on the form of Judaism which are; reform, conservative, orthodox and the reconstructionist (2018:5-6).

Newberg and Rabbi Halpern have also argued that the Jewish people are open to understanding the scientific role it offers to theology. Whereas God has been seen to have emotions in Scripture which agrees with the work of the occipital lobe (c.f. Deut. 7:7-8; Is. 43:4; Hos. 11:1; Ps. 103:13; Ex. 5:13; 22:24). The have argued on the metaphorical notion that God is Spirit and does not need any expressions of anger, happiness, love and any such emotional

element as man does. What the Old Testament and other such passages in the New Testament have done is to show us the humane side of God, which makes Him able to relate with human beings.

The Greek's view is as written in the New Testament bring out there understanding. However, it is as much as the Jewish found in the Old Testament. Lois Tverberg (2018) has argued that Jesus lived in a society that was deeply familiar with Scripture; his audience would have found his usage of parables based on the biblical text persuasive. Jesus was a reformer of the Jewish faith and parables came in hand. John Hargreaves (1979:1) argues that parables are like bright beams of light. He adds that through them we see our God. What is fundamental is that we see God through the opening of our minds. What is important to note is that parables provoke thinking.

Lois Tverberg (2018) has noted, "Jesus often based his reasoning on experience rather than if-then logic." Apostle Paul in Romans 12: 2 strengthens this argument by arguing on the renewal of the mind, which is mainly of the faculty of reasoning and perception. Apostle Paul knew very well that the mind-brain often needed to be renewed (C.f. Eph. 2:3; 4:17, 23; Phil. 3:16). In addition, of interest to this dissertation is Colossians 2: 18 in which Apostle Paul uses the two words "fleshly mind" together. The use of the *σὰρκὸς* (*sarkos*-flesh) and link it the mind denotes the material (brain) which the Apostle wanted to talk about. Thus, what is material to the mind is the brain. The usage of the word mind in the New Testament seems to have been consistent by not only Apostle Paul but Apostle Peter as well (c.f. 1 Pet. 1:13; 3:8; 4:1, 7; 2 Pet. 3:1).

It is very clear to this dissertation that the notion of rationality is important in theology. To advance the argument we shall be reviewing the subject of the effect of rationality to dogma. This is important because the brain becomes the ultimate tool in the understanding and application of theology. Under it, we shall look at the anatomy of the brain, the cognitive functions of the brain and memory functions of the brain.

CHAPTER 4: THE EFFECT OF RATIONALITY IN DOGMATICS

4.1 Introduction

In this chapter, the study argues on the role of the rationality in Dogmatics. The primary understanding of dogma is that it is 'a set of principles offered by authorities as true for the building of faith'. Dogmas as enforced principles of faith require rationality. This helps us to account for the brain's functions in Dogmatics as discussed by Newberg, saying the brain has the following functions of hearing, reading, praying, cognitive functions, emotions, memory and other such functionalities (2010:171). This prompts a proposal of a hypothesis *katastasi* ('State' in Greek) in the brain's biological state. This dissertation offers that *katastasi* has a dualistic state, where one person can be capable of rational thought, while the other is not. According to the dictionary, the word "sane" means of sound mind; or mentally ill, while "insane" means in a state of mind which prevents normal perception, behaviour, or social interaction; seriously mentally ill. As can be seen, the terms "sane" or "insane" is not about madness only, but will be avoided so as not to cause offense.

Drawing on further on the discourse, Delprato (1979:410) offers a hypothesis of dualism⁴ stating, "Human mind and body are two distinct entities that interact with each making him a person" (also argued for by Newberg & Halpern, 2018:275-276). However, *katastasi* is a hypothesis that persons exist in two states of mind, both capable and incapable of rational thought. *Katastasi* compares two people or groups unlike dualism, which is mono as its central argument is on mind and body, which are of one entity. We should however take into account the notion that the brain works within the neural processes and is inseparable from behaviour. Dogma influences behaviour as character and personality of a person made in the image of God is fashioned. Testimony to this is suicide bombers in Islamic dogma of jihads. This puts this kind of study in forefront to bring out a clear understanding of the benefit of behavioral change because of dogmas and creeds.

Therefore, rationality is so important to humans because it helps us to appreciate dogmas. The brain is an ultimate tool employed in Dogmatics. Newberg (2010:179) argues that this is about epistemic states whose elements determine how human beings made in the image of God sense and make sense of reality. This sense of realism reinforces the argument of the state of

⁴Dualism is the philosophy of mind about two fundamental kinds or categories of things or principles (specifically about mind and body) but in theology the term 'dualist' refers to someone who believes about good and evil or about God and the Devil existing independently

mind having the ability of rational thought or not. Those who cannot think rationally do not have the ability to make sense of what is offered to them. Erdi (1996) draws us to the understanding of yet another role of the brain by arguing on the negative feedback (Inability to acquire dogma), control mechanisms serve to reduce the difference between the actual and the desired behaviour of the system whereas the notion of acquiring information is part of that desired behaviour of the brain. The table below balances up this debate by reflecting on the persons of whom this dissertation has considered.

Table 4-1: Questions to persons with brain ailments

Question	Respondents						
	A	B	C	D	E	F	G
What highest level of education you have attained	None	Grade 7. But can't read or write	Grade 7. Can write his name	Grade 7	Special classes	Grade 4	Special class
Name of ailment	Cerebral palsy	Down syndrome (Mild)	Down syndrome (Mild)	Down syndrome (Mild)	Schizophrenia	Down syndrome (Moderate)	Dementias
Age	13 years	51 years	30 years	38 years	31 years	18 years	27 years
Do you attend church?	Yes (Responded For by parents)	yes	Yes	yes	yes	Yes (But not often)	yes
What is the name of your church?	Anglican (Responded For by parents)	Anglican	Reformed Church	Roman Catholic	Pentecost	New Apostolic	SDA
Are you baptized?	Baptized as an infant (Responded for by parents)	Yes	Yes	Yes (infant baptism)	No	Yes (Infant baptism)	No
Are you a communicant?	No response	Yes	Yes	No	No	Yes	No

Who is Jesus?	No response	Couldn't give an answer	God's son	God	Uncoordinated response	Father Marry	David was the answer
What is the church?	No response	Hall	God's House	Hall	Uncoordinated response	Apostle	UCZ for her is the church
What does the church teach about God?	No response	God is Jesus	Jesus is the Son of God	None responsive	Uncoordinated response	Jesus	David for is God
What do you think is the role of the rationality in learning the doctrinal teachings?	No response	Responded on goodness of learning	None responsive	None responsive	Parents / good for learning	Parents / it is the engine for learning	Inconsistencies in responses
Do the teachings of the church help you improve your relationship with God?	No response	Yes	Yes	yes	Yes	Yes, in the night	Helps me
In three sentences only, outline what you learnt last Sunday.	No response	Non response as she couldn't remember anything	Uncoordinated in responses	Uncoordinated in responses	Uncoordinated in responses	None responsive	Inconsistencies in responses
Have you had any training in catechism?	No response	Yes	Yes	No	Not available in the church	Yes	No
Responses to people and activities	She responds to family members and music through a smile. Not active	She makes sure that she attends church on her own accord and can do some housework	He is active and sings in the choir yet is difficult to teach dance patterns	Sings in the church choir	Associates well	She relates with others well	She relates with people well but can react negatively to those who provoke her

The letter A to G represents persons selected for this research. The letters used are true people whose identity has been concealed. The hiding of true name conforms to the ethical norm of

confidentiality. A and F have been nicknamed Natasha and Rose in this dissertation. Nonetheless, the first three questions assimilate with persons interviewed. To avoid judging them wrongly, their approved medical condition is noted; on the other hand, an evaluation of their level of education done too. Those with an acute mental ailment like Natasha who suffers from cerebral palsy could not even make it to the first grade. Her condition is bad enough not to allow her to do so. Rose though does relate with people but is inconsistent and uncoordinated in her responses and views. She represents several others who have this condition. Rose only remembers a word in many other things taught and at times is not accurate. When defining their condition in this very chapter we shall see that Rose and many others are not deliberately failing to respond but have their neural system undeveloped or poorly formed.

This argument informs this dissertation that the rationality has a huge contribution to dogma, whereas dogma is also a hermeneutical material in church lessons. The failure by Natasha to learn any dogma through catechism is based on the poor state of her brain. This is also true with the inconsistencies visible in the other persons interviewed. It is clear that those persons with mental challenges, whether it is severe or mild, do have some level of inability to acquire, engage and apply information to meaningful dialogue, as well as understanding what is being taught to them. During interviews Fr Isaac Mwale, an Anglican Priest brought up a very important point saying, 'some are brought to church while others bring themselves.' Those that brought to church by their parents or guardians have an acute mental problem, thus, their parents motivate their faith.

Question four to eight assesses the understanding of dogma, while the following question assesses memory. The latter question evaluates the effort the church has in making to teach persons with brain ailment. The feedback from the questionnaire's ascends the notion that persons with acute mental ailment remember nothing of what they learnt even from the previous Sunday. Michael Fuller earlier alluded that religious beliefs come about through certain kinds of brain activities (Shakespeare, 2016:163). The obvious brain activities that he was discussing are the functions of memory and plasticity. There is a benefit of the doubt on those with a mild state of mind evidenced by them joining the choir and sing a sign that their level of memory is somewhat active enough.

The ailments covered in the table above do mean:

❖ Schizophrenia

Schizophrenia is a mental disorder often characterized by abnormal behaviour strange speech, and has a presentation of loss of contact with reality (Papalia & Wendkos Olds, 1988:513). It may also result in some combination of hallucinations, delusions, and extremely disordered

thinking and behavior that impairs daily functioning, and can be disabling (Alzheimer's Association, 2019). The symptoms of schizophrenia involve a range of problems with thinking (cognition), behavior or emotions conditions. The Editors of Alzheimer's Association (2019) argues further that signs and symptoms may vary nonetheless would involve delusions, hallucinations or disorganized speech, and reflect an impaired ability to function. Symptoms may include.

- Delusions. These are false beliefs not based in reality.
- Hallucinations. These usually involve seeing or hearing things that do not exist.
- Disorganized thinking (speech). Disorganized thinking infers to speech disorder. Effective communication can be impaired, and answers to questions may be partially or completely unrelated.
- Extremely disorganized or abnormal motor behavior. This may show in a number of ways, from childlike silliness to unpredictable agitation.
- Negative symptoms. This refers to reduced or lack of ability to function normally.

❖ Dementias

Mayo clinic (1998) notes that dementia is not a specific disease. However, it is an overall term describing a group of symptoms associated with a decline in memory. Too often, dementia is incorrectly referred to as "senility" or "senile dementia." Thr Mayo clinic (1998) also argues that symptoms of dementia can vary greatly; at least two of the following core mental functions must be significantly impaired such as memory, communication as well as language, focusing and paying attention visual perception; reasoning and judgment to be considered dementia. Persons with this challenge present themselves with a short-term memory problem.

❖ Down syndrome

Down syndrome is a genetic disorder, due to abnormal cell division results in an extra full or partial copy of chromosome 21, such a person would present with Down syndrome (Mayo clinic, 1998) Symptoms as Mayo clinic (1998) argues are that each person with Down syndrome is an individual. Intellectual and developmental problems may be mild, moderate or severe.

❖ Cerebral palsy

There several types of cerebral palsy such as;

- Ataxic cerebral palsy
- Athetoid cerebral palsy
- Athetosis
- Hypertonia
- Hypotonia
- Scissor gait
- Spastic diplegia
- Spastic hemiplegia
- Spastic quadriplegia
- Spasticity

Cerebral palsy as a disorder involves movement, muscle tone or posture that causes damage to the immature, developing brain, most often before birth. The manifestation of signs and symptoms do occur during infancy or preschool years (Mayo clinic, 1998). However, Mayo clinic adds that Cerebral palsy's effect on functional abilities varies greatly. Thus, affected peoples may walk while others would not. In addition, that some people show normal or near-normal intellectual capacity, but others may have intellectual disabilities. Epilepsy, blindness or deafness also may be present. Signs and symptoms may present by movement and coordination problems at times with seizures

The disability associated with cerebral palsy may be limited primarily to one limb or one side of the body, or it may affect the whole body.

Other known disorders are a result of;

- ❖ Brain Cancer
- ❖ Epilepsy
- ❖ Some seizures (Seizure disorders)
- ❖ Mental Disorders
- ❖ Parkinson's and movement disorders
- ❖ Stroke and Transient Ischemic (TIA)
- ❖ Encephalitis

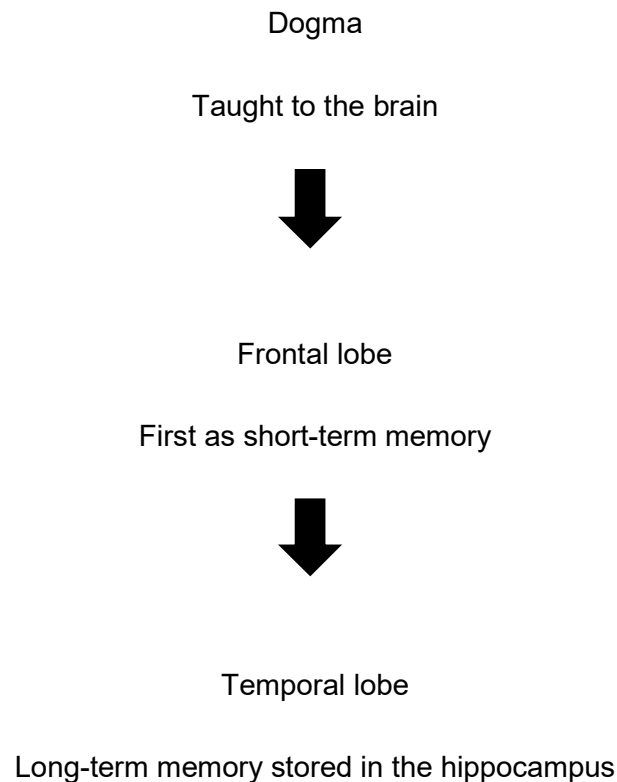
Those interviewed or responded to the questionnaires were consistent when it comes to Down syndrome in presenting their conditions as mild, moderate or severe. Many presented themselves with decline in memory. They could not remember anything of what taught to them in Church the last time they visited the church and that often parents had to respond for them a

notion that they are not in a normal position to make use of their brain when it comes to learning. Mayo clinic has offered that persons with such ailments would often have a disorganized thinking and have a disorganized speech. Effective communication for them is impaired, and answers to questions may be partially or completely unrelated agreeing with the argument of this dissertation.

The brain, nonetheless, is the largest and most complex organs in the human body and made up of more than 100 billion nerves that communicate in trillions of connections called synapses serving as the ultimate tool for learning. Notably, the practical usage of the word 'brains' in a language is the word 'mind'. This is about the work of the brain. For Ashbrook the analogy for understanding God is the two words brain and mind belong to one reality. For him 'Mind' identifies the human meaning of 'brain' even as 'brain' designates the empirical referent of 'mind' (Glove, 2018). Whereas Newberg (2010:23) argues that, the mind is the functional attribute of the brain and that this functional element of the brain does include thoughts, feelings, and experiences. As a point of emphasis Peter May (2018) notes that the philosopher J. Bubziszewski recalls the dilemma of self-understanding he experienced as an atheist saying;

“My mind, I supposed, was nothing more than the activity of my brain, my brain is nothing more than a computational device. Of course, we do not experience ourselves as machines, but I told myself that we are machines under a double curse – the illusion of being more than machines and the desire for the illusion to be true.” (Shakespeare, 2016:163; Benger, 2017)

Bubziszewski' preposition is that the mind is an activity of the brain. It would be linguistically wrong in speech and writing to refer to the works of the brain by using the word brain. Paul, however, in Romans 12: 2 argues for a transformation, which comes by renewing of the mind (νοός). Paul's argument shows that he was aware of the value the brain offers to theology by using the word *nous*. For biblical activities to be applied, our minds must be renewed. Dogma becomes part of that activity that Peter May is arguing on. The Apostle Peter nonetheless refers to 'remembrance' subject to a pure mind (διάνοιαν) *dianoian* (2 Pet. 3:1). It is important to take notice that *nous* and *dianoian* are both nouns though *nous* is masculine while *dianoian* is feminine. We should, however, understand how dogma is applied in the brain whereas hermeneutics has reviewed how homiletics it is applied to the brain. This argument is strengthened by what Ashbrook and Albright held that the structures and distinctive features of the human brain are descriptive not only of the human mind but as well as of our knowledge of God (Brandt, 2010:306). A schematic sentence demonstrates the route dogma takes.



Mastin (2018) argues that the hippocampus is essential for memory functions, and that used in the transference of the acquired information from short to long-term memory. What is significant to note is that dogmas and creeds are believed by internalizing as activities of memory. To understand this argument further we should account for the changes that occur in the brain through a process known as neuroplasticity also referred to as brain plasticity (Schwartz & Begley, 2009:15). William James, a psychologist, first used the term plasticity in 1890. Nonetheless, neuroplasticity changes throughout a person's life⁵. Erdi (1996) argues on ontogeny and plasticity of neural structures. He adds that plastic behaviour may correspond to a combination of structural changes and modifications of the synaptic strength. This makes the brain a self-organizing device, structurally non-programmable. Adding further that the functions of the brain highly depends on the physical (biological) substrate; the processing is parallel (Erdi, 1996). This agrees with the argument on *katastasis*, which is the biological status of a human being. Thus, for neuroplasticity positively to occur, a brain capable of rational thought is important.

The section on brain anatomy has an in-depth argument on this notion. Nonetheless, a snap argument is here offered that the brain has many functional areas such as personality,

⁵ The earlier held view is that the brain is hard wired. Neuroplasticity has challenged this notion

reasoning and speech areas in the frontal lobe; sensory, hearing and speech understanding in the parietal lobe; smell and permanent (long term) memory in the temporal lobe as well as vision and visual processing in the occipital lobe. Of interest to this dissertation is the permanent memory found in the temporal lobe. Miller (2010) argues that the act of remembering can change our memories in a process known as neuroplasticity. This is a very important argument as dogma relies on memory and neuroplasticity.

Therefore, how much of this change does dogma force on memory? This question should help us reflect on the way we offer dogma. The argument that neurons act as the pathways for brain activities and that they are capable of dying when they are less active denotes that dogma has to redesign itself as an active source for doctrine. Drawing into memory is called Flashbulb Memory (FBM) and that it is memory of surprises. However, FBM is not a memory of an event but is akin to the memory of circumstances surrounding hearing news of the event said Brown and Kulik, 1977 (Sierra & Berrios, 1999:115-125). Brown and Kulik (1977) denotes that two significant factors lead to FBMs being created, which are a high level of surprise and high levels of emotions. The Jesus event is a historical event. It is also an event told to us. We are not first witnesses of the event making it an event of FBM. This is unlike Factual Memories (FTM). If we were the first witnesses to the Jesus event, we would depend on FTM.

Progressively, the Anglican Church introduces its doctrinal teachings after the age of 12 years. This is in line with correct teaching on the brain as after this age, comprehension adequately takes place. Comprehension depends on FTM and FBM. For Margaret Semrud-Clikeman, (2018) however learning is consolidated into **neural networks** concepts combined into meaningful units that are available for later use. These skills are closely tied to the development of the tracts of the right hemisphere as well as in the areas of the brain that are tied to emotional processing also called the **limbic system (amygdala)**. Semrud-Clikeman adds that this intersection is called the association area of the brain and generally contains information that has been learned and is now stored. It is clear in my research that such is void based on mental state. This is the information that is commonly measured on achievement tests and verbally based ability tests concluded Semrud-Clikeman.

We have seen the significance of the brain to dogma and that dogma as enforced principles of faith depends on rationality. However, a lot of change does occur during the act of remembering known as neuroplasticity. We have seen that there is *katastasis* in the state of the brain covering the state in a human being of being capable of rational thought and not being capable of rational thought. However, we need to assess the brain further by looking at its anatomy,

cognitive and memory functions. This will make the debate balanced and offer dogma the much-needed information.

4.2 The anatomy of the brain

The discussion of the anatomy of the brain in theology is a blessing. The world of study has evolved and much information is available for a perfect discourse. Theological studies are no different. As has been argued for in this dissertation, Dogmatics depends on a brain with the capacity for rational thought, and that the brain becomes the tool for decoding and encoding. Thus, we in the theological world must endeavor to understand the brain very well unlike our ancestors. The Editors of Encyclopedia Judaica (2008) acknowledges that there is no systematic account of the anatomy of the human body in the Bible, although abundant use on anatomical facts, metaphors, and expressions. The Encyclopedia Judaica argues that the Talmudic anatomy is deficient by omission pointing to the absence of the brain in the Torah.

Alexander Fingelkurts and Andrew Fingelkurts' (2009:14) arguments is on whether our brain is hardwired to believe in and to produce God, or whether our brain is hardwired to perceive and experience God? The hardwired notion of the brain is subject to this dissertation as it helps dogma explain itself. Alexander Fingelkurts and Andrew Fingelkurts argues further that our brain is structured so as to provide us with experiences that make us believe that there is a God, but this belief may merely be the result of internal brain activity and our interpretation of it (2009:14). The theory of the brain hardwired is, herein contrasted with the theory of neuroplasticity as the latter challenges the former.

The findings in this section, however, may have little scriptural references yet the results matter a lot. Progressively, the figure below shows a section of the head with some parts of the brain named.

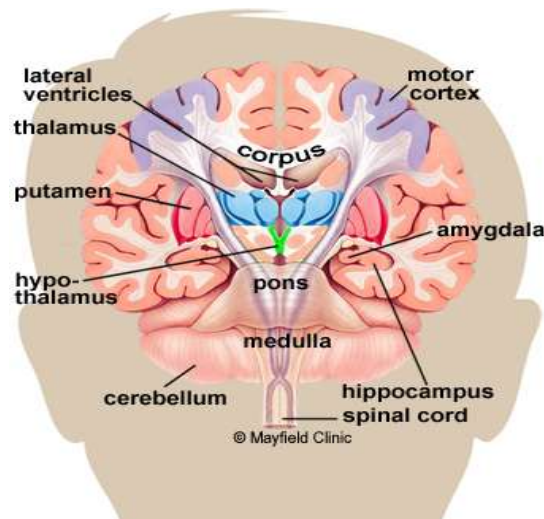


Figure 4-1: The Brain (© Mayfield clinic 2018)

The figure above produced by Mayfield Clinic gives us a picture of a human being made in the image of God. Unlike the heart (*leb*), the brain (*nir*) in Hebrew is not accounted. Newberg and Halpern (2018: 19) argue on brain anatomy as a conglomeration of neurons and support cells that exist within the human head. Professor Carla Shatz argues that the brain consists of neurons which communicate through chemical electrical signals connected by synapses where memories are stored, whereas Associate Professor Nim Tottenham adds that this signaling has a pattern systematically directing information to the desired lobe (YouTube, 2019). Tottenham argues that the brain physiology develops in a 'C' shape. The argument is that the brain from birth develops from the lower region to the frontal region. It first commences with sensory functions then motor/language and higher cognitive functions. The lower region functions do include sight and hearing. It is prudent to account for dogma in this theory. The question that dogma must answer is to whether it falls in the latter stages of brain development, i.e. in the Anglican Church, catechism, for Holy Communion, is taught at the age of 12 years and above. The figure below demonstrates the 'C' shape in brain development.

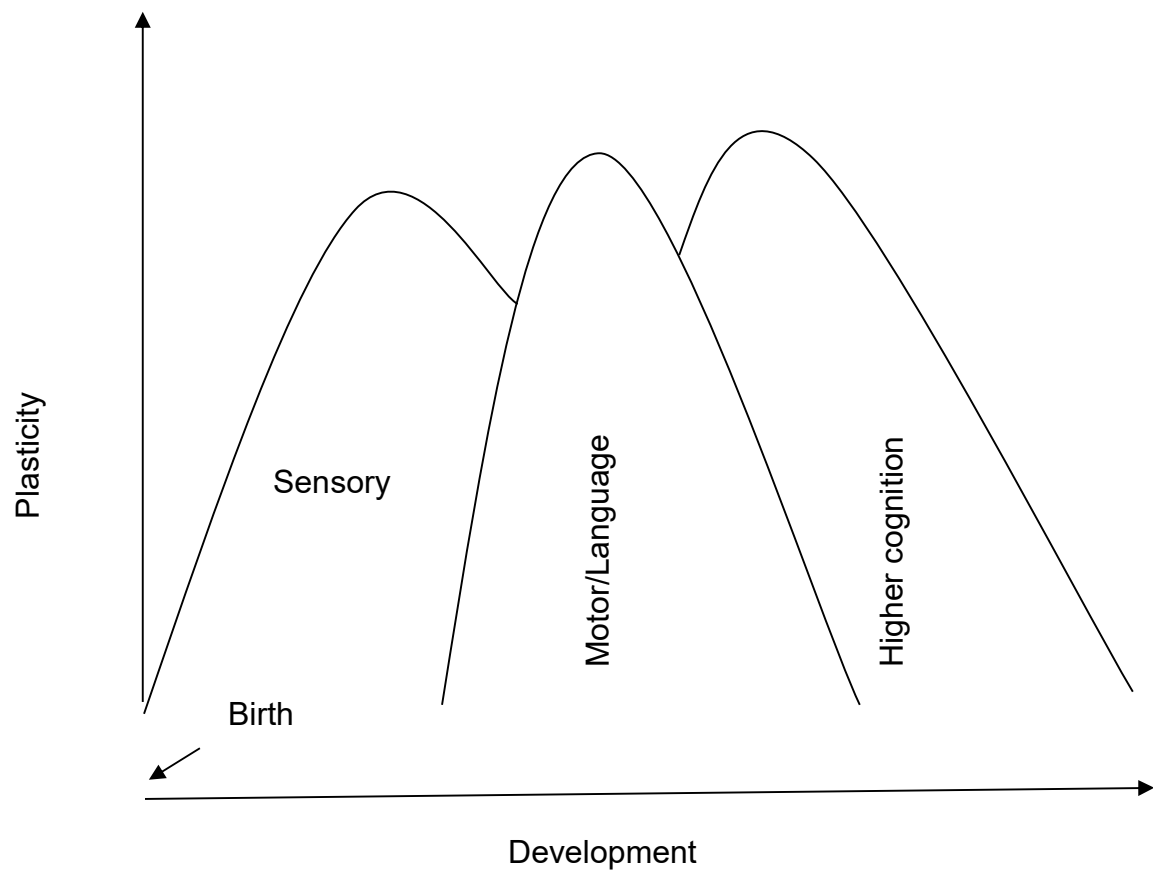


Figure 4-2: C-Shape Development of the Brain

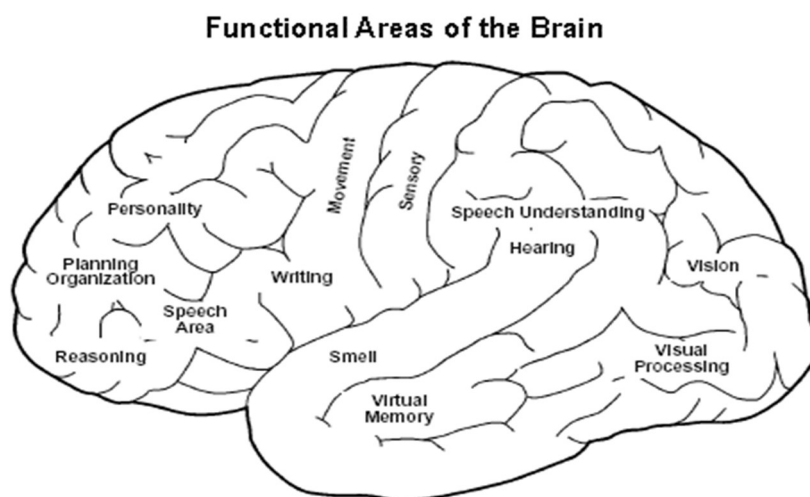


Figure 4-3: Functional Areas of the Brain (© Semrud-Clikeman 2018)

The figure below offers a section of the brain between the two hemispheres and the entire brain showing the “C” shape beginning at the Occipital Lobe to the Frontal Lobe.

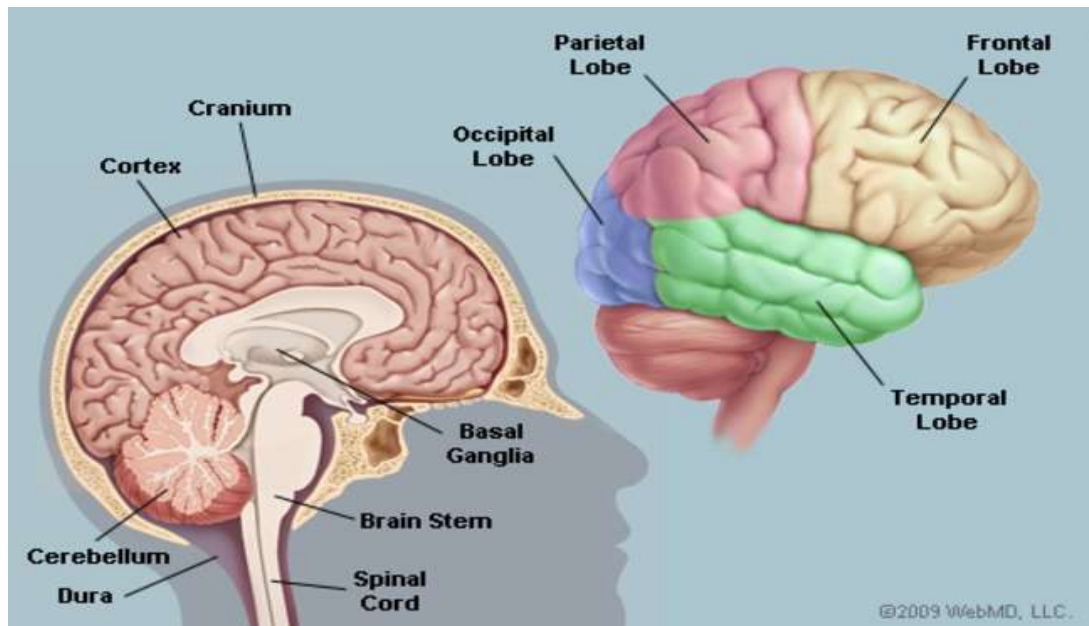


Figure 4-4: C-Shape Analogue of the Brain (© 2009 WebMD, LLC)

“C” shape analogue

- ❖ Visual / vision
- ❖ Hearing / speech understanding
- ❖ Virtual memory
- ❖ Sensory
- ❖ Movement
- ❖ Writing
- ❖ Personality
- ❖ Planning organization
- ❖ Reasoning

To employ the figures given above we must first account for the Jewish analogy on the notion. The Jewish people did give details to their anatomy and sometimes more accurate describing, for example, the small cartilage rings in the structure of the trachea, only discovered by Western anatomists in the 18th century. At the same time, Talmudic anatomy is deficient by omission

(Encyclopedia Judaica, 2008). On the other hand, unlike modern science, the anatomy of a human in the Talmudic anatomy shows a lack of precision in terminology. The Encyclopedia Judaica (2008) also argues that:

“As in all ancient anatomical works, numerous terms are cited in the Bible for the bones: the lower part of the spinal column is called *azeh* (Lev. 3:9); the upper part of the pelvis *kesalim*; the loins are given a plural (Lev. 3:4). In accordance with their dual structure; the upper (cervical) part of the spinal column is described as *mafretet* (1 Sam. 4:18) ...”

This strengthens of this dissertation is strongly accounting for the rationality in theology today. The Encyclopedia Judaica has done well in clearly showing us the Jewish anatomy, demonstrating the extent of their understanding of human and animal anatomy. In the modern understanding of brain anatomy, Maria Patestas and Leslie Gartner (2000:68) argue that during it is during embryogenesis that the brain is subdivided into five continuous regions, from rostral to caudal: the telencephalon, diencephalon, mesencephalon, metencephalon, and yelencephalon. They add further that as the brain grows in size and complexity, these regions fold upon and over one another so that in the adult the evidence of these subdivisions is no longer apparent. A poor development of the brain at this stage can be fatal in a child as it grows.

The adult brain has three regions, which are visible, the cerebrum, cerebellum, and part of the brainstem making up the brain. Maria Patestas and Leslie Gartner (2000:68) noted that the surface of the cerebral hemisphere is composed of a highly folded collection of grey matter, known as the cerebral cortex. Diane Papalia and Sally Wendkos Olds (1988:39) argue that in spite of many studies on the brain researchers are surprised often at the complexity of the brain. Whereas Alexander Fingelkurts and Andrew Fingelkurts' (2009:15) first argument is that the intense activation of the frontal and temporal cortices and limbic system, as well as (de)activation of the parietal cortex give rise to religious experience. Unlike other religious experiences such as praying, dogma demands a lot on the brain, as it is lifelong information. Dogmas such as creeds and materials within catechism are taught so that they a life style in the believers.

The brain is made up of two hemispheres and is subdivided into four lobes: the frontal, parietal, temporal, and occipital lobes. For Maria Patestas and Leslie Gartner (2000:70-73), the frontal lobe extends from the frontal pole to the central sulcus, constituting the anterior one-third of the cerebral cortex and that the parietal lobe is interposed between the frontal and occipital lobes and is situated above the temporal lobe. While the temporal lobe is separated from the frontal and parietal lobes by the lateral fissure and from the occipital lobe by an imaginary plane that

passes through the parieto-occipital sulcus. They added further that the anterior-most aspect of the temporal lobe is known as the temporal pole. In addition, that the fourth lobe called the occipital lobe extends from the occipital pole to the parieto-occipital sulcus. Maria Patestas and Leslie Gartner (2000:77) argued further that the cerebellum is located in the posterior aspect of the brain, just below the occipital lobes of the cerebrum

We, therefore, have to account for some functionalities of the brain such as cognitive functions and memory functions. The brain may have many other functions but these two are important to the learning of dogma.

4.3 Cognitive functions of the brain

As elsewhere stated, the brain has many functions, which include cognitive and memory functions. This makes largely a difference between animals and man. The way our brain works out its cognitive functions makes a man different from animals. Dr Pascale Michelon (2006) argues that cognition has to do with how a person understands the world and acts in it, and, that it is the set of mental abilities or processes that are part of nearly every human action while we are awake. The notion of the significance of the rationality to dogma remains valid as what Michelon has said supports that. People are supposed to understand and apply what they learn and see in this world, however, it is challenging to defend the fact that person with serious brain ailment can correctly attain comprehension.

Dr Newberg and Rabbi Halpern (2018:273) defend this notion by saying that our mental processes arise from, or are caused by, the neuro-physiological workings of the brain. However, a diseased mind has cognitive functions affected. What we should do at this stage is to bring out some of these cognitive functions for the benefit of this debate. Primarily, for Michelon (2006) cognitive abilities are brain-based skills we need to carry out. This involves any task that we need to do from the simplest to the most complex. They have more to do with the mechanisms of how we learn, remember, problem-solve, and pay attention, rather than with any actual knowledge. The complex activities, which utilize the frontal lobe, require that the frontal lobe is healthy, free of injury and ailment.

The table below brings out some of the cognitive functions of the brain as proposed by Michelon:

Table 4-2: Cognitive function

Cognitive ability/Brain function	Skills involved
Perception	Recognition and interpretation of sensory stimuli (smell, touch, hearing, etc.)
Attention	Ability to sustain concentration on a particular object, action, or thought, and the ability to manage competing demands in our environment and brain challenges.
Memory	Short-term/ working memory (limited storage), and Long-term memory (unlimited storage).
Motor skills	Ability to mobilize our muscles and bodies, and the ability to manipulate objects.
Language	Skills allowing us to translate sounds into words and generate verbal output.
Visual and Spatial Processing	Ability to process incoming visual stimuli, to understand the spatial relationship between objects, and to visualize images and scenarios
Executive Functions	Abilities that enable goal-oriented behaviour, such as the ability to plan, and execute a goal. These include Flexibility: the capacity for quickly switching to the appropriate mental mode. Theory of mind: insight into other people's inner world, their plans, their likes and dislikes. Anticipation: prediction based on pattern recognition. Problem solving: defining the problem in the right way to then generate solutions and pick the right one. Decision-making: the ability to make decisions based on problem solving, on incomplete information and emotions (ours and others'). Working Memory: the capacity to hold and manipulate information "on-line" in real-time.

	Emotional self-regulation: the ability to identify and manage one's own emotions for good performance. Sequencing: the ability to break down complex actions into manageable units and prioritize them in the right order. Inhibition: the ability to withstand distraction, and internal urges.
--	--

The four cognitive functions that we shall reflect upon are very important to dogma. The first is that of ability to pick skills. Michelon argues that these skills allow us to translate sounds into words and generate verbal output. Some people I interacted with through the questionnaire or interviews could not even respond to my questions a sign that they were incapable to process information later on call upon the cognitive function of skill to interpret. It is such persons that this dissertation is considering for either a policy or a catechism that suits them. The argument is not about the grace of God but about teaching and learning to stand approved workmanship in the Lord.

The second cognitive function that is of value to this discourse is that of recognition. The brain must have the capacity to recognize not just what is in front of a person but what is taught as well. This involves the eyes feeding the occipital lobe, the frontal lobe for the primary memory functions or in some case drawing upon serious thinking and the temporal lobe for long-term memory functions. The brain must be in a position to decode and encode information reasonably. However, many persons with mental ailment beyond moderate have the challenge to recognize and process information.

The third cognitive function is that of decision-making. The brain must have the ability to make decisions. We make decisions about what to wear, to eat, which church to attend or belong to etc. It is inconceivable that a person with a healthy brain will fail to make even a single decision in a day. Papalia and Wendkos Olds (1988:289) would align this argument to deductive reasoning⁶ and inductive reasoning⁷. All these processes are taken when a person is making a decision. However, persons with severe mental ailment are void of the aforesaid.

The later cognitive function is flexibility. Flexibility is the capacity for quickly switching to the appropriate mental mode. The military is careful when it comes to this cognitive function. Soldiers march not as a means of just discipline but the test of this cognitive function as well. All

⁶ Deductive reasoning – the logical process in which conclusion is certain if the information given is true

⁷ Inductive reasoning- the logical process in which the conclusion is drawn is probably correct

soldiers with mental challenges relating to flexibility will find it difficult to match well. Catechumens are not only supposed to make decisions on their salvation but are flexible, thus, being able to make decisions to adapt the mind to the new teachings. Rigidity in learning can be because of inability by catechumens to adapt to dogma.

4.4 Memory functions of the brain

All human beings would be valueless if they could not draw on memory. Scripture in Hebrews 8:10 argues that, “This is the covenant I will establish with the people of Israel after that time, declares the Lord. I will put my laws in their minds and write them on their hearts. I will be their God, and they will be my people.” Central to this argument is the duty that God gives himself of putting His law in the mind of man. Being a learned technician, we know the value of memory in electronic gadgets. A good performance of a gadget is based on available memory. Human beings are not void of this. Our minds must have enough memory. This sounds like a laughable matter when we wish to think of how much memory we ought to have. Human beings rely on memory to account for the past. Michelon (2006) argues that we must have the memory capacity to hold and manipulate information in real-time. For Papalia and Wendkos Olds (1988:193) note that before we draw on memory functions, we must have first perceived it and heard it. Nearly all lobes at this stage will be active to take part in-memory processing as would relate to it. The systematic drawing below explains general memory processing;

Encoding



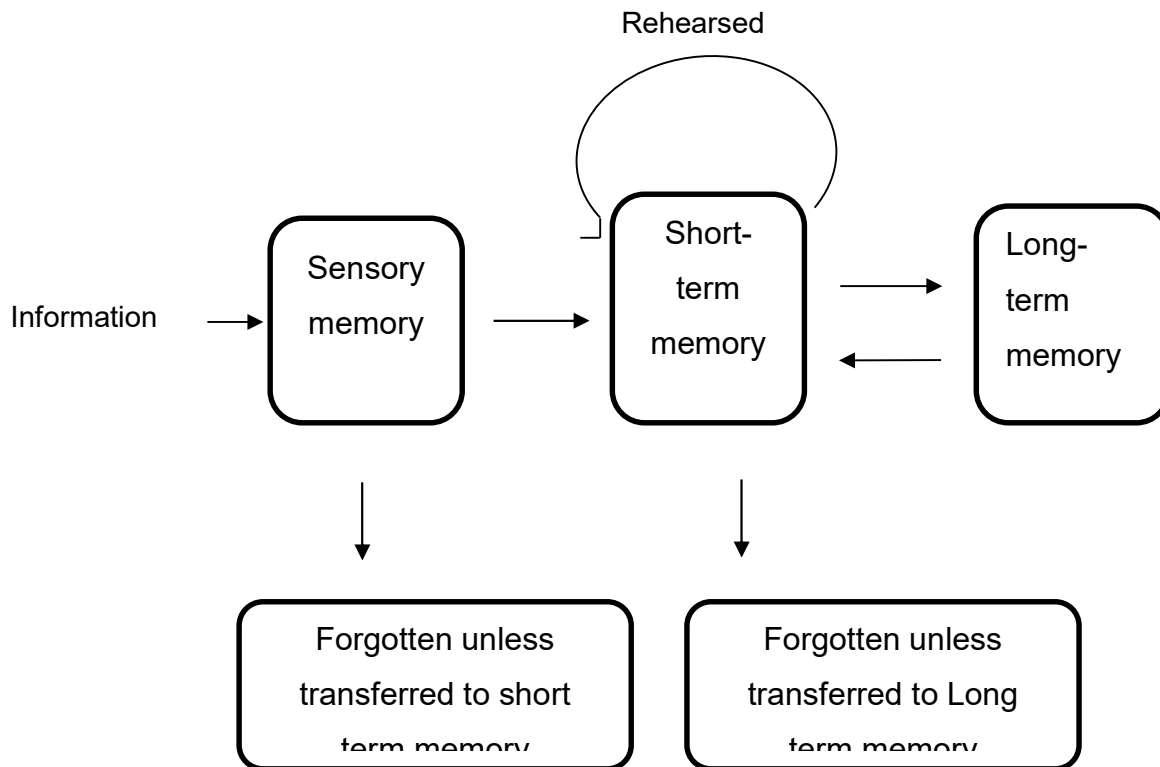
Storage



Decoding

Each of these stages is very important for correct comprehension and interpretation. Papalia and Wendkos Olds (1988:193) speak of the three stages of memory processing as encoding, storage and retrieval. In electronics, a decoder is only good if it can encode. Thus, a catechumen can only be good if he/she can encode to decode. Papalia and Wendkos Olds added that forgetting could occur when a problem occurs in any of the three stages. Newberg and Halpern (2018:273) argue that the implications are that damaged areas of the brain are

responsible for the loss of such functions. Papalia and Wendkos Olds (1988:194) offer a diagram to explain further memory activities;



Some damage to memory is repairable medically as argued for by Schwartz and Begley (2009: 98) but the brain is capable of picking up its youthful plasticity hence restore some lost memory in injuries. Also argued for elsewhere Miller (2010) argues on change our memories in a process known as neuroplasticity.

As has been argued for, memory activities can be assessed using FBM and FTM. It has been noted that FBM is not a memory of an event but is akin to the memory of circumstances surrounding hearing news of the event noted Brown and Kulik in 1977 (Sierra & Berrios, 1999:115-125). What is encouraging is that memory can be evaluated or tested though cannot be ascertained as to how much a person has. However, intelligence links to the memory of human beings. Intelligence activities of memory has seen many test theories. Exam ranks top on that list. This however in modern theories is challengeable. The Seventh Day Adventist say that they cannot baptize a person unless has proven that the mind is intelligent enough to remember. This I would offer ringer around the notion of mental competence. Papalia and

Wendkos Olds (1988:229) state that Lewis Terman (1921) developed the Stanford-Binet Intelligence Scale to test intelligence.

Cognitive functions of memory should be argued against the two theories of a hardwired brain and neuroplasticity. In spite the theory of hardwiring being old, it can still offer some defence to theology in that we do not teach the same things yet theology is a lifelong experience. To argue on this the table below does explain the differences that exist between the two theories.

Table 4-3: Brain hardwire/neuroplasticity theories

Theory	Activity in	Responses and memory activity
Hardwired	Neurons	- Fixed neuro system - Acquires information and stores it forever.
	Frontal lobe	Inherent activities⁸
	Parietal lobe	Inherent activities
	Occipital lobe	Inherent activities
	Temporal lobe	That the hippocampus and amygdala store long-term memory stored for usage throughout one's life. Memory is only retrievable
Neuroplasticity	Neurons	- That they act as pathways for information and operative throughout a person's life. - They are capable of changing and regenerate (neurogenesis) - Synapses change to learning and new developments to the brain
	Frontal lobe	Acquired⁹ (exherent)
	Parietal lobe	Acquired (exherent)

⁸ That what is acquired is never lost and can only be tapped into

⁹ That the brain acquires new information throughout one's life and that this information can be forgotten when not continuously called upon.

	Occipital lobe	• Acquired (exherent)
	Temporal lobe	• That memory functions are found in all lobes and function accordingly when called upon.

The functional nature of these lobes has been discussed elsewhere. However, what this section does or attempts to do are to venture into the deficiencies that theology and Dogmatics in particular finds its self-amidst this argument. If the theory of hardwiring is completely ruled out would mean that doctrinal teachings which are done seldom, are at loss. No formal theological teachings are taught to infants at their baptism however, the 11 years old to elderly age groups are taught catechism at their baptism or confirmation. The teaching may take two years but only stays as an event that occurred in one's life. The challenge here is that this type of an activity under neuroplasticity is capable of dying, as it is a one-moment event.

4.5 Conclusion

The main aim of chapter four has been to discuss the role of the rationality in Dogmatics. It has been argued that the primary understanding of Dogma is that it is 'a set of principles offered by authorities as true for the building of faith'. Dogmas as enforced principles of faith require rationality. This helps us to account for the brain's functions in dogma, as discussed by Newberg, saying the brain has the following functions of hearing, reading, praying, cognitive functions, emotions, memory and other such functionalities (2010:171).

A hypothesis *katastasi* ('State' in Greek) in the brain's biological state has been proposed so that we can understand the value of the brain very well, thus a healthy brain has been extensively argued for. *Katastasism* is to be understood as a dualistic state of mind, where one person can be capable of rational thought, while the other is not. The proposed hypothesis takes into account what Delprato (1979:410) offered on dualism stating that human mind and body are two distinct entities that interact with each making him a person (also argued for by Newberg & Halpern, 2018: 275-276).

The anatomy of the brain demonstrates that the brain is the largest and most complex organs in the human body, made up of more than 100 billion nerves that communicate in trillions of connections called synapses. While the mind is the element of a person that enables them to be aware of the world and their experiences, to think, and to feel; the faculty of consciousness and

thought. It has four lobes that of the frontal lobe, parietal lobe, temporal lobe and the occipital lobe. In addition, that the practical usage of the word 'brain' in a language is the word 'mind' referencing to the work of the brain. Bubziszewski preposition, however, is that the mind is an activity of the brain. Arguably, it is linguistically wrong in speech and writing to refer to the works of the brain by using the word brain.

We have also noted that Paul's view in Romans 12: 2 promotes a transformation, which comes by renewing of the mind (νοός). Paul's argument shows that he was aware of the value the brain offers to theology by using the word *nous*. For biblical activities to be applied our minds must be renewed. This means that dogma becomes part of that activity that Peter May (2018) argued for. The Apostle Peter too refers to 'remembrance' subject to a pure mind (διάνοιαν) *dianoian* (2 Pet. 3:1). It is important to take notice that *nous* and *dianoian* are both nouns though *nous* is masculine, while *dianoian* is feminine. This strengthens the notion of dogma being applied in the brain nonetheless hermeneutics has reviewed how homiletics it is applied to the brain.

Thus, the discussion of the anatomy of the brain in theology should be viewed as a blessing to theology today. The world of study has evolved and much information is available for a fruitful discourse. Theological studies are no different. As has been argued for in this dissertation, Dogmatics depends on a brain capable of rational thought, and that the brain becomes the tool for decoding and encoding. We in the theological world must endeavor to understand the brain very well unlike our ancestors. The Editors of Encyclopedia Judaica (2008) acknowledges that there is no systematic account of the anatomy of the human body in the Bible, although abundant use is made thereof anatomical facts, metaphors, and expressions. An important point is also offered in the Encyclopedia Judaica that the Talmudic anatomy is deficient by omission pointing to the absence of the brain in the Torah.

Newberg and Halpern (2018:19) argue that brain anatomy as a conglomeration of neurons and support cells that exist within the human head. The Mayfield Clinic gave us a picture of a human being made in the image of God demonstrating its significance. Unlike the heart (*leb*), the brain (nin) in Hebrew's theology seems not to have been accounted for that well.

Finally, we have noted that memory is vividly brain activity in human beings and to an extent offers a difference between animals and man. We have also noted that cognitive functions are activities of the brain. Dr Pascale Michelon has argued that cognition has to do with how a person understands the world and acts in it and that, it is the set of mental abilities or processes that are part of nearly every human action while we are awake. We have also seen that memory has a definite route it takes for information processing which is encoding, storage and decoding

(retrieval). This involves feeding the brain first with information and memory function takes over arguably found in all lobes. For example, the eyes feeding the occipital lobe while the frontal lobe takes in primary memory functions and handles are difficult memory activities.

We have argued on four distinct functions of the brain on the ability to pick skills, recognition, decision-making and flexibility. This is where flexibility is the capacity for quickly switching to the appropriate mental mode. We have noted that soldiers seem to know very well on how to test flexibility by the matching activity. Nonetheless, Catechumens are not only supposed to make decisions on their salvation but be flexible drawing them to the ability to adjust to adapting with dogma.

In addition, memory plays an important role for all human beings. Our minds must have enough memory to function well. Michelon (2006) argues that we must have the memory capacity to hold and manipulate information in real-time. While Papalia and Wendkos Olds (1988:193) noted that before we draw on memory functions, we must have first perceived it. Papalia and Wendkos Olds, however, have argued that forgetting occurs when a problem occurs in any of the three stages of encoding, storage and retrieval. Newberg and Halpern (2018:273) have argued that the implications are that damaged areas of the brain are responsible for the loss of such functions. Papalia and Wendkos Olds (1988:194) have offered a diagram to explain further memory activities;

We have argued that the assessment of memory activities can be using Flashbulb Memory (FBM) and FTM. It has been noted that FBM is not a memory of an event, but is akin to the memory of circumstances surrounding hearing news of the event, as noted by Brown and Kulik (1977; Sierra & Berrios, 1999:115-125). The notion of testing memory has been discussed as well, thus memory can be evaluated or tested though cannot be ascertained as to how much a person has. However, the memory of human beings is always linked to intelligence. Intelligence activity of memory has seen many test theories. Examination ranks top on that list of test tools. It has been argued that this in modern theories is challenged. The Seventh Day Adventist say that they cannot baptize a person unless has proven that the mind is intelligent enough to remember. This I have offered ringers around the notion of mental competence. Papalia and Wendkos Olds (1988:229) have argued that Lewis Terman (1921) developed the Stanford-Binet Intelligence Scale to test intelligence.

CHAPTER 5: CAN THE IMAGE OF GOD BE DISTORTED BY BRAIN AILMENTS?

5.1 Introduction

The understanding of the image of God is that of man created in the image and likeness of God different from that of animals and other created beings. In Genesis 1: 24 God created animals and other living creatures in their kind yet Man was created in God's likeness (verses 26, 27). The argument is that animals and other creatures were created in their kind, unlike the human being who was created not in his kind but the image of God before the Fall. The image of God offers us an opportunity to be like God, as we can invent, name, discover and participate in God's divine plan of salvation, an act never granted to other created beings. The argument is not about how close we are genetically to other created beings but our position in God. For Carey Latta (2018) the image of God is the doctrinal tenet by which Christians understand what it means to be human. Whereas Tertullian's argument of the image of God is that, it is a state of being and relating it to man's form (c.f. McGrath, 2007:360-361). Primarily the argument of 'man's form' reveals a lot. "Form" being the visible shape or configuration of something draws us to argue that the state of being a 'visible shape or configuration' speaks to this dissertation. Secondly, the argument Tertullian offered values the image of God by referring to human reasoning which involves the functions of the brain. However, Tertullian from a distance was agreeing that "form" is very important for theology. Neil Messer's (2017:3) view is that our brain defines who we are and should bring us to what it means to be a human being created in the image of God.

However, Christ is the perfect image of the invisible God (c.f. 2 Cor. 4: 4). The challenge is on how Man can measure up with this standard, as our being is effectually defective physically and mentally. From within the image of God, we see primarily the manifestation of the rational element, affection; dominion and will manifesting in Man. These are not mere coincidences that animals and other created beings seem to fall short of this. Prompted by the defence offered, it will be justified in this chapter as to whether the brain ailments distort the image of God. Brandt *et al* (2010:305) argue that our minds must be suited to receiving and processing relevant information and other realms of knowledge. However, Schwartz and Begley (2009:8) offer that the mind is not independent of the brain. This argument qualifies the interests of this dissertation on the role of rationality in Dogmatics, as the mind is part of the brain. This argument is drawn from the premises that a brain is a machine whose behaviour is predestined or seemingly offering no room for will. Nonetheless, Brandt argues further that perception must be suited on the 'Ground of Being'. The 'Ground of Being' is the understanding of our being in

God and that our being in God must be able to perceive and interpret the will of God. It is God's unique and unequivocal nature yet he chooses to share himself with humanity. To reclaim our lost image and likeness we must embody ourselves in Christ the perfect image of God (c.f. Col. 1: 15; 2 Cor. 4:4; John 10:30; Heb. 1:3).

Latta's (2018) point of departure is that the mind which consists of intelligence, rationality and language which should not be measured against the standard of competence. This is a questionable argument as all discourses must be within the levels of competence and that this competence must be qualified to mean mental competence. The sender must be as mentally competent as the receiver for meaningful dialogue to occur. Dogmatics is a study that fully depends on rational and mental competence. A brain disorder may affect someone's personality, relationships and sense of identity and that some brain injuries can cause loss of awareness and interactions with the surroundings, argues Neil Messer (2017:1). This leads us to what Latta defends when referring to his son Gas as he misdirected his argument by linking the argument to innocence. Doctrinal teachings are not merely about innocence, but the understanding of many doctrines like, Ecclesiology Christology, Soteriology, Pneumatology, the doctrine of Scripture and the doctrine of God. What Latta should have offered to argue on is as to whether the Image of God is innate and not affected by the state of the mind.

An additional argument should ring around the notion of whether the image of God is a condition or a state or a status. The three words 'condition,' 'state' and 'status' do mean the following; condition means the physical state in which someone or something is in and affected by, while state means a condition that someone or something is in at a specific time and that status means a position or standing. Appropriately, so the image of God should be understood within the application of any of the three words to mean the image of God is a condition where there is no deficiency of the rational element. Whereas the image of God is a state (*katastasi*) of being of sound mind or of a state of mind that prevent "normal" perception and that the image of God could then be argued to be a status not of prestige but of how others view your rational and mental competence.

The brain's condition again can be argued from the position of Erdi (1996), who earlier delineated that the precondition of the normal operation of the nervous system is to be in permanent material and energetic interaction with its environment thus the environment can cause injury to the brain. The bigger question emanating from this argument is that after the environment has affected the normal growth of the brain, does it mean that the image of God is equally affected? Understanding the image of God as being 'the state of being' before the Fall entails that all born after the Fall in spite of the condition of their brain have the image of God

affected. This does come out different from the argument Latta (2018) offers as his view is biased towards innocence. However, how innocent are we after the Fall? Paul writing to the Romans in chapter 3 verse 23 says that we all have fallen short of the glory of God. Paul's argument is subject to salvation as salvation demand confession (c.f. Rom 10: 8-10). Yet those with acute brain ailment may fail to meet the requirement of confessing however, the state and status of being made in the image of God is intact. The image of God being a state of God's perfect nature is independent of Man's state of mind though restoration requires or does demand a health mental status for confession to occur.

Conclusively, we have seen that the image of God being a state and condition after the Fall of man is independent of the effects of the environment on the brain. What has been offered is that the image of God is what makes human beings different from other created being. Man was created in the image and likeness of God, unlike animals, which were made after their kind. Based on the arguments offered, it is important in the following chapter six, considers the question of whether the image of God is distortable by brain ailments.

5.2 A brief on common brain ailments

The approach to the arguments here is basic but to the point, this is differentiating this dissertation to a psychological discourse. Unless at such a time when studies like this one shall find it necessary, shall we do a comprehensive study and analysis.

- ❖ Schizophrenia – presentation- loss of contact with reality (Papalia & Wendkos Olds, 1988: 513)
- ❖ Dementias
- ❖ Brain Cancer
- ❖ Epilepsy
- ❖ Some seizures (Seizure disorders)
- ❖ Mental Disorders
- ❖ Parkinson's and movement disorders
- ❖ Stroke and Transient Ischemic (TIA)
- ❖ Down syndrome
- ❖ Encephalitis
- ❖ Cerebral palsy

Types of cerebral palsy

- Ataxic cerebral palsy
- Athetoid cerebral palsy
- Athetosis
- Hypertonia
- Hypotonia
- Scissor gait
- Spastic diplegia
- Spastic hemiplegia
- Spastic quadriplegia
- Spasticity

Some of these brain ailments are caused by head injuries, bacterial and viral infections. Some can be cured by administering drugs and electronic medication yet still others are permanent in a person's life. The unfortunate situation is where a child is born with a brain condition such as Down syndrome or cerebral palsy, would live their lives without attaining some levels of what is perceived as normality. Such as has been evidenced by this study yet find their way into the Church. It is, therefore, the duty of the church to not only share the agape of Yahweh but also provide a meaningful understanding of the gospel of Christ and the doctrines of the Church.

5.3 Christ and persons with brain ailments

This section seeks to respond to the notion of whether Christ did address the notion of persons with brain ailment during his ministry while on earth. We focus on the New Testament and particularly the four gospels to help us understand Christ's view on this question. The obvious place to find our answers is the miracles, healings and parables offered and done by Jesus Christ.

In Matthew 9:1-8 we see Jesus heal a paralytic. From the onset, Jesus a Jew brings out his Jewishness in verse 4 saying, "Why do you think evil in your hearts?" For Jesus like any other Jew, thinking was the matter of the heart. In spite of him being God, He worked within the culture, theological thinking and understanding of the Jewish people. Nonetheless in Matthew 17:14-21, a man came to Jesus saying,

¹⁴And ... a man came up to him and, kneeling before him, ¹⁵said, "Lord, have mercy on my son, for he has seizures and he suffers terribly. For often, he falls into the fire, and

often into the water. ... ¹⁸ And Jesus rebuked the demon, and it came out of him, and the boy was healed instantly.”

A seizure is a sign of brain damage in a patient possibly caused by an epilepsy disorder or a myriad other cause. Jesus though did not address it as such but provided healing showing that he valued the notion of a sound mind. What obtains in this passage is that demons can cause brain damage.

While on parables, Frank Judd Jr. (2003) notes that Jesus’ primarily employed two types of parables, focusing on His audience. The first set of parables being a call “parables of instruction,” in which Jesus used to teach His disciples and curious seekers about basic gospel principles. While the second set of parables address the notion of “parables of rebuke”, in which Jesus focused on those who had ill will towards him (c.f. Matt. 21-22). Hargreaves, however, relates the twelve parables into groups of four (1979: ix). This argument is found at the preamble of his book states that;

- a. Those parables whose chief message seems to be “God has done something new”
- b. Those which draw attention to God’s love and generosity
- c. Those which describe the character of the followers of Jesus
- d. Those which warn us to be ready

Though we fully support Hargreaves way of analysis on the parables it is clear that the parables too did not address the notion of the brain. The parables address truly many topics, yet did not address the brain. Only in concept do the parables challenge the mind. Christ’s usage of the parables was to challenge the Jewish people and revolutionize their way of thinking.

5.4 Conclusion

This chapter has firstly addressed the definition of the image of God as being man being created in the image and likeness of God different from that of animals and other created beings. We see in Genesis 1:24 that God created animals and other living creatures in their kind yet Man was created in God's likeness (verses 26, 27). The argument though is that animals and other creatures were created in their kind, unlike the human being who was created not in his kind but the image of God before the Fall. In addition, that the image of God offers us an opportunity to be like God, as we can invent, name, discover and participate in God’s divine plan of salvation, an act never granted to other created beings.

Carey Latta (2018) has argued that the image of God is the doctrinal tenet by which Christians understand what it means to be human. Whereas Tertullian's argument of the image of God is that it is a state of being and relating it to man's form (c.f. McGrath, 2007:360-361), while Neil Messer's (2017:3) has argued that our brain defines who we are and should bring us to what it means to be a human being created in the image of God. What is a challenge, is that Christ is the perfect image of the invisible God (c.f. 2 Cor. 4:4), whereas man cannot measure up with this standard, as our being is effectually defective physically and mentally.

We have argued that within the image of God are a primary manifestation of the rational element, affection; dominion and will to manifest in Man making them not mere coincidences that animals and other created beings seem to fall short of the previously mentioned. Brandt *et al* (2010: 305) have argued that our minds must be suited to receiving and processing relevant information and other realms of knowledge. Whereas Schwartz and Begley (2009:8) offer that, the mind does not exist independently of the brain.

For Latta (2018) the mind consists of intelligence, rationality and language should not be measured against the standard of competence. This has been questioned, as all discourses must be measured within the levels of competence. The sender must be as mentally competent as the receiver for meaningful dialogue to take place-drawing dogma in the picture.

We have argued as well on the notion of whether the image of God is a condition or a state or a status. What is clear is that the three words 'condition,' 'state' and 'status' do mean the following; condition means the physical state in which someone or something is in and affected by, while state means a condition that someone or something is in at a specific time and that status means a position or standing. Thus, the image of God is understood within the application of any of the three words to mean the image of God. It is a condition where there is no deficiency of the rational element, whereas, the image of God is a state (*katastasi*) of being either of sound mind or having a state of mind incapable of perception and that the image of God is a status not of prestige but of how others view your rational and mental competence.

This chapter has also argued on different brain ailments, such as Schizophrenia; Dementias; Brain Cancer; Epilepsy; Some seizures disorders; Mental Disorders; Parkinson's and movement disorders; Stroke and Transient Ischemic (TIA); Down syndrome; Encephalitis; Cerebral palsy. Types of cerebral palsy include Ataxic cerebral palsy; Athetoid cerebral palsy; Athetosis; Hypertonia; Hypotonia; Scissor gait; Spastic diplegia; Spastic hemiplegia; Spastic quadriplegia; and Spasticity.

A fair reflection on the foresaid entails that some arguments on then brain ailments are caused by head injuries, bacterial and viral infections. Nonetheless, we have had to draw all these arguments to the life and ministry of Jesus Christ. It has been noted that it is only through the miracles and healings that he did as well as in his parables that we can see the mind of Christ on the notion. The resolve has been that Christ's usage of parables did challenge the mind of the Jewish people while his miracle of a person with seizure demonstrates his awareness of a sound mind

To advance the debate further the chapter following is addressing the question of whether persons with brain ailments can be taught doctrine. This emanates from the arguments of competence that both the sender and the receiver must be of sound mind for a meaningful dialogue to take place.

CHAPTER 6: IS DOCTRINE TEACHABLE TO PERSONS WITH BRAIN AILMENTS?

6.1 Introduction

This chapter will argue on the premise of doctrinal teachings being offered to people with brain ailment. However, what degree of inability of rational thought can impede learning? This question gives strength to this dissertation to assess the need to look into the notion of brain ailment affecting the learning of doctrinal teachings. The Scripture in Hebrews 8: 10 acknowledges that God will put His laws in the minds of His people. We argued earlier that the mind is the brain in speech. Thus, the usage of this word, mind, must be understood to mean that God was to put his law in the brain of His people. Apostle Paul however acknowledges that God has not given us the spirit of fear; but of power, and of love, and of a sound mind (sophronismos – calling to sound mind) (2 Tim. 1:7, KJV). This chapter will equally consider arguing on the soundness of the mind and it has value to learning.

Therefore, the notion of persons with brain ailment being taught doctrine, matters to this dissertation. This section will answer the question by valuing the issue of policy. In addition, a questionnaire for church leaders was to give out so that this study has a wide understanding of the role of the brain to dogma. The following questions were used;

1. Do you have in your Diocese/Presbyter persons with special needs?
2. Why do they attend the church?
3. Does your church have a policy on persons with a mental disability?
4. Does their mental disability disadvantage them in acquiring doctrinal teachings?
5. Do you baptize persons with a mental disability?
6. How many have you baptized?
7. How persons with mental disability in your church (Parish) received any form of training in catechism?

The table below brings out responses from the Anglican Church, Reformed Church in Zambia (RCZ), Roman Catholic and United Church in Zambia (UCZ). Some of the Churches assessed are the Pentecostal Churches of Light Christian Church (LCC) and Pentecostal Assemblies of God (PAOG). Others that have been included are the New Apostolic Church as well as the Seventh Day Adventist (SDA). Priests, Pastors, Bishops and Apostles were interviewed to balance up on ecclesial leadership. This does give this research a well-informed outcome. On the other hand, the theological scope has widely been valued in this under taking.

Table 6-1: Questions for Church leaders

Question	Respondents							
	Anglican	Reformed Church	Roman Catholic	UCZ	Pentecostals		New Apostolic	SDA
					LC C	PAOG		
Do you have in your Diocese / Presbyter persons with special needs?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Why do they attend the church?	Some come to church while some are brought to church for salvation and fellowship	To attain salvation and associating with others in a peaceful environment	Family tradition and is some cases for fellowship	Family tradition	They find love and comfort at church	Some follow family while others feel free at church	God does not segregate based on mental state	Family tradition
Does your church have a policy on persons with a mental disability?	No	RCZ has a clause in its constitution Clause 26.5 (a) and (c).	Not written down but in practice yes	No	No	No	Not to his knowledge	No
Does their mental ailment disadvantage them in acquiring doctrinal teachings?	Yes	Yes	Yes	Yes	Often disadvantaged as their presence goes a cared for spiritually by the church.	Yes	They are disadvantaged because the church does not tailor teachings for them	Yes, because they cannot make an informed decision
Do you baptize persons with a mental disability?	Baptized the mild mental state, and Can baptize the severe mentally	Yes	No because sacraments are informed by grace and works and not faith alone	Yes	No	Yes, as I am guided by grace	Yes	No because they lack a sound mind

	challenged because it is a sacrament							
How many have you baptized before?	2	3	None	None	None	None	Not yet	None
How many persons with mental disability in your church? (Parish) received any form of training in catechism?	2	Yes, though those with acute mental attained without understanding the cause. (3)	None	None	None	Catechism course is offered at baptism and after which all become communicants	Catechism course is offered at baptism and after which all become communicants	None

Table 6-2: Analysis of the data

Question	Respondents							
	Anglican	Reformed Church	Roman Catholic	UCZ	Pentecostals		New Apostolic	SDA
					LC C	PAOG		
Do you have in your Diocese / Presbyter persons with special needs?	Yes = 1	Yes = 1	Yes = 1	Yes = 1	Yes = 1	Yes = 1	Yes = 1	Yes = 1
Why do they attend the church?	salvation = 2, fellowship = 3	salvation = 2 associating = 3	Family tradition = 4 fellowship = 3	Family tradition = 4	They find love and comfort at church = 3	family = 4 freedom at church = 3	God does not segregate based on mental state = 2	Family tradition = 4
Does your church have a policy on persons with a mental disability?	No = 0	RCZ has a clause in its constitution Clause 26.5 (a) and (c). = 1	Not written down but in practice yes = 1	No = 0	No = 0	No = 0	Not to his knowledge = 0	No= 0
Does their mental ailment disadvantage them in acquiring doctrinal teachings?	Yes = 1	Yes = 1	Yes = 1	Yes = 1	Often disadvantaged as their presence goes a cared for spiritually by the church. = 1	Yes = 1	They are disadvantaged because the church does not tailor teachings for them = 1	Yes, because they cannot make an informed decision = 1
Do you baptize persons with a mental disability?	Baptized the mild mental state, and Can baptize the severe mentally =	Yes = 1	No because sacraments are informed by grace and works and not faith alone = 0	Yes = 1	No = 0	Yes, as I am guided by grace = 1	Yes = 1	No because they lack a sound mind = 0

	1							
How many have you baptized before?	2 = 1	3 = 1	None = 0	None = 0	None = 0	None = 0	Not yet = 0	None = 0
How many persons with mental disability in your church? (Parish) received any form of training in catechism.	2 = 1	Yes, though those with acute mental attained without understanding the cause. (3) = 1	None = 0	None = 0	None = 0	Catechism course is offered at baptism and after which all become communicants = 1	Catechism course is offered at baptism and after which all become communicants = 1	None = 0

Question	Anglican	RCZ	Roman Catholic	UCZ	LCC	PAOG	New Apostolic	SDA
special needs (Mental ailments)	1	1	1	1	1	1	1	1
Church attendance	2, 3	2, 3	3, 4	3	3, 4	3, 4	2	4
Policy on mental disability	0	1	1	0	0	0	0	0
Acquiring of doctrinal teachings	1	1	1	1	1	1	1	1
Baptisms of persons with a mental disability	1	1	0	0	0	1	1	0

Key to responses

0 = none or nil (none existent)

1= Yes

2 = Salvation

3 = Fellowship

4 = Family

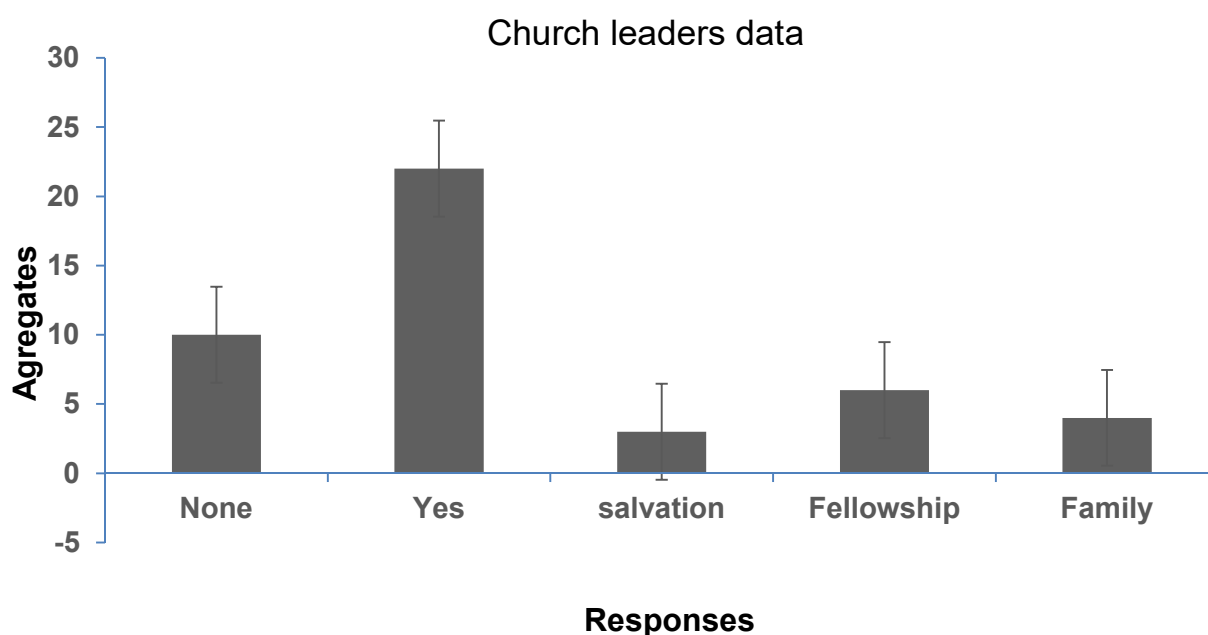
Table 6-3: Researcher's score on the date (Out of 100)

Question	Anglican	RCZ	Roman Catholic	UCZ	LCC	PAOG	New Apostolic	SDA
special needs (Mental ailments)	1 = 100 marks	1 = 100 marks	1 = 100 marks	1 = 100 marks	1 = 100 marks	1 = 100 marks	1 = 100 marks	1 = 100 marks
Church attendance	2 = 40 marks (Salvation is arguable) 3 = 50 marks (Fellowship is a loose bond)	2 = 40 marks (Salvation is arguable) 3 = 50 marks (Fellowship is a loose bond)	3 = 50 marks (Fellowship is a loose bond) 4 = 70 marks (family bond is always strong)	3 = 50 marks (Fellowship is a loose bond)	3 = 50 marks (Fellowship is a loose bond) 4 = 70 mark (family bond is always strong)	3 = 50 marks (Fellowship is a loose bond) 4 = 70 marks (family bond is always strong)	2 = 40 marks (Salvation is arguable)	4 = 70 marks (family bond is always strong)
Policy on mental disability	0 = 10 marks (going by church tradition their practice is un written policy but not acknowledge d)	1 = 70 marks (an attempt to incorporate is visible)	1 = 50 marks (Out of respect for church tradition but the result discriminat e)	0 = 10 marks (going by church tradition their practice is un written policy but not acknowledge d)	0 = 10 marks (going by church tradition their practice is un written policy but not acknowledge d)	0 = 10 marks (going by church tradition their practice is un written policy but not acknowledge d)	0 = 10 marks (going by church tradition their practice is un written policy but not acknowledge d)	0 = 10 marks (going by church tradition their practice is un written policy but not acknowledge d)
Acquiring of doctrinal teachings	1 = 10 marks (The response is not based on scientifically proven results on the catechumen)	1 = 10 marks (The response is not based on scientificall y proven results on the catechume n)	1 = 10 marks (The response is not based on scientificall y proven results on the catechume n)	1 = 10 marks (The response is not based on scientifically proven results on the catechumen)	1 = 10 marks (The response is not based on scientifically proven results on the catechumen)	1 = 10 marks (The response is not based on scientifically proven results on the catechumen)	1 = 10 marks (The response is not based on scientifically proven results on the catechumen)	1 = 10 marks (The response is not based on scientifically proven results on the catechumen)
Baptisms of persons with a mental	1 = 20 marks (The response is based on a person	1 = 40 marks (The policy is too general and not	0 = 10 marks (The response is not informed	0 = 10 marks (The response is not informed by either	0 = 10 marks (The response is not informed by either	1 = 20 marks (That baptism is only informed by the	1 = 60 marks (That baptism is informed by both church	0 = 10 marks (Response is not informed by policy nor any theology.

disability	conviction and not the policy of the Church)	specific, yet an attempt is evident)	by either policy or theology of the Church)	policy or theology of the Church)	policy or theology of the Church)	doctrine of grace and not balanced with policy. To an extent it is more of a person conviction towards grace)	tradition and a doctrine of soul to care. However, the results are informed mainly by the doctrine of grace and doctrine of being baptized for the dead)	It is purely guided by church tradition)
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The above in the tables has been analyzed in the graph below.

Figure 6-1: Graph Analysis



- A lack of policy and its resultant such as baptism comes second on this chart. This is not a positive sign as the church has chosen to be proactive on the notion of the persons with mental ailment;
- It is evident that all denominations have persons with mental disabilities; and

- The reason for persons with mental ailment's coming to church weigh more on fellowship that salvation.

The tables and graph above add a voice to this debate. On the question of persons with special needs, all respondents agreed of having them in their churches. The question is broad as mental ailment is not the only special case the church has. There are for example persons who are differently able and persons who are so poor to be viewed as such. However, the follow up questions are, their churches having a policy on persons with a mental disability, their mental ailment disadvantage them in acquiring doctrinal teachings, and having baptized persons with a mental disability as well as if persons with mental disability in the churches receive any form of training in catechism narrows the intention of the questioning.

The Roman Catholic Church's response to the questionnaire offers that the general practice of the Church is based on issues of ability and inability to reason serving as a measure by which catechism and sacraments are to be offered. The general view of the Pentecostal Pastors is biased towards our status in the image of God to be a state that does not get affected by mental ailments hence sacraments should be offered to all. The Protestant view, however, is valiant. Others argue on the premises of grace while others speak of judgment and a compassionate God while others lean towards the Roman Catholic view. The Reformed Church in Zambia seems to stand tall among the rest. Evidence of their view on this debate is found in their constitution and by-laws section 26.5 on mission and charity. Section 26.5 (a) and (c) states;

- a) To proclaim the Gospel to all in need of the Lord's salvation
- b) To assist the Deacons in helping the needy, poor, widows, widowers and orphans who are vulnerable in the section.

In the words "all in need of salvation and needy as well as vulnerable" would include those that this dissertation is arguing for. The New Apostolic Church teaches that all human beings are sinners in need of the grace of God (New Apostolic Church International, 2014:146). This argument emanates from the doctrinal teaching of soul care¹⁰.

Those that argue based on judgment and compassion however offer that such should be left to the Lord who is the judge, stressing that on such basis sacraments should be offered indiscriminately. The challenge arises because of the sacrament of marriage, which generally involves the status of being either of sound mind or not. In addition, the other challenge

¹⁰ Soul care teaches that all humans are equal before God and that salvation is for all in spite of their state. Nonetheless, much of this argument is not written though practiced.

emanates from infant baptism. Sacraments are irrevocable. Once a sacrament has been offered, it cannot be withdrawn. A good example is the sacrament of baptism, which cannot be withdrawn when offered. A child who has received this sacrament cannot have it withdrawn afterward even if they are mentally ill.

The first question nonetheless evaluates the Church leadership's knowledge about the presence of persons with brain ailment in the church; the responses of which this dissertation has looked at. In addition, the second question has focused on ascertaining the reason why they attend church. The question may seem wide in scope as people primarily come to church for salvation in Christ. However, some do come to church because of family or sense of belonging. This question nonetheless seeks for the first proponent.

The third and fourth question evaluates the policy line of the church. The Roman Catholic responded that when one sacrament is offered then all the other seven catholic sacraments must be offered which includes baptism. That is true also with the last question as its outcome informs the presence or absence of inclusive policy. It is clear that all catechisms viewed do not take into account the issue of *katastasi* i.e. Anglican prayer book (1989:421-444), New Apostolic Church Catechism (2012), Reformed Church of Zambia (2013), and SDA - T.M. French, (1936) Bible Doctrines (Number One): Sabbath School-Lesson Quarterly South Africa.

We have seen how the notion of the image of God is distorted by brain ailment, which has been interesting to argue on. It is, however, important to debate if persons with brain ailment can be taught doctrinal matters. This is important because Churches have persons medically proven to having brain ailment yet cannot be considered for sacramental rites such as Holy Communion, ordination and to an extent baptism. When classes for catechism have been setup, how welcoming has the church been to persons with acute brain ailments? Latta (2018) argues that the image of God in such persons is visible in their innocence. His conclusive support for such persons is that God would not segregate on the grounds of mental ability or disabilities suggesting that such would reduce God to be like earthly Fathers. God is 'all caring' as he gives rains to all. He is according to the triad an omniscient, omnipotent and omnibenevolent God. He is all loving and all knowing. Thus, Latta' view is that there are levels of intelligence and rationality in person such as those with Down syndrome. The argument is on the premise of the triad. Nonetheless, the idea of this chapter is to assess the debate that lingers around the notion of mental competence.

Setting the basis for the argument, we have to account for brain ailments such as psychiatric disorder, acute stress disorder; bipolar disorder, Down syndrome and adjustment disorders. However, of interest to this study are ailments that cause permanent damage to the brain

affecting reasoning and memory. This is so because dogmas depend on a sound mind. However, it is very important to set the base for future studies that Dogmatics lacks tools to assess the capacity for rational thought levels of those that are within its reach. Paul Cunningham questions as to whether religious experiences are truly localized within the brain (2011:223-249). In response, he argues that religious experiences such as Dogmatics are localized in the brain. The brain is the master organ for life.

It is important is to examine if persons with brain ailments on their ability to be taught doctrine. Can they? Respondents to my questionnaire hold divergent views on this matter. However, what is held outside the notion of faith is that persons with brain ailment do not comprehend what is taught to them making it difficult to ascertain their participation in cognitive functions. The general Roman Catholic view is that such persons are void of the sacraments. However, Thye M.D *et al* (2018) argue on the effect of Theory of Mind (ToM) which for him is a broad cognitive process, which encompasses several sub-processes, such as mental state detection. This hypothesis agrees with Dimitrios Kapogiannis *et al* (2009), who argue that belief system relies on a body of semantic and event knowledge drawing us to Factual memories (FTM). He adds that source of semantic knowledge for religious belief is doctrine. Thus, doctrine defines what is believed. Holding on to this argument, FTM that is event-based does rule out the ability of the brain to function normally when it lacks mental competence.

The failure for theology to examine persons with brain ailments emanates from a lack of theological tools for assessment unlike other fields which employ functional Magnetic Resonance Imaging scan (fMRI), Glasgow coma scale (GCS), Factual memories (FTM) and Flashbulb memories (FBM), whereas Neil Messer agrees with this notion (2017:10-11). One would argue that Dogma does not need that, yet within our churches are members with brain ailments. Unlike Magnetic Resonance Imaging (MRI), which scans the image's anatomical structure, fMRI produces images showing the blood flow in the brain of which it depicts the active parts of the brain. Psychology however has a number of scales depending on the condition of the patients such as Positive and Negative Syndrome Scale (PANNS), Scale for the Assessment of Negative (SANS), Scale for the Assessment of Positive Symptoms (SAPS), Diagnostic classification and rating scales used in psychiatry and Brief Psychiatric Rating Scale (BPRS) can be employed. The argument here is that Dogmatics should find its scale or take advantage of the expensive route of MRI or fMRI to assess those that receive dogma. Neil Messer denotes that Michael Persinger designed a test tool called 'God helmet' to be used to assess temporal lobe activities (2017:22).

A challenge arises when psychology argues that sanity is not measurable because there are no absolute sane people. This becomes a challenge because we should value mental competence

when we are offering theology. Psychiatric discourses also offer an argument on functional limitations¹¹ (levels of mental competence) which is the ability of the brain to function when faced with mental ailment. The question of persons with brain ailments being taught doctrine can be answered within this argument. The argument is that dogma like any other educational studies depends on functional limitations. The discourse of assessing these limitations in Dogmatics cannot be fully answered, as what we require is to design tools of assessment. Erdi (1996:88-97) however offers that the brain is a self-organizing device, structurally non-programmable. He adds further that these functions highly depend on the physical state substrate (i.e. biological); the processing is parallel.

The functions of the brain can be argued for on the premise of the three states of learning which are supervised, reinforced and unsupervised. Dogma falls under the supervised. (i.e. catechism) Newberg (2010:170), however, discussed the functions of the brain by discussing the notion of mental shut down. He notes that there are specific limitations that are placed on the ability to perceive and understand God. Latta (2018) though argues this case out when he questions about those who would never reason or speak at an exemplary level. However, Semrud-Clikeman (2018) argues on inferential thinking and **Meta cognition** drawing an understanding that learning problems may be due to immaturity. This can only be true when argued based on age since catechism, for example, is offered at 12 years plus, an age psychologically ready to receive doctrinal and other teachings. What is more important at this age is the level of mental competence.

Finally, we have seen what it takes for persons with brain ailments to be taught doctrine. We have to value functional limitations and mental competence. We have noted that we need to discover tools to examine persons with brain ailments on their ability to be taught doctrine so that our judgment and assessment is informed. The challenge though is that psychology states that there are no absolute sane people. This becomes a challenge because we should value mental competence when we are offering theology.

A.1 Tools of the trade

The list may not be conclusive but that the following tools are common to the fields of Medicine, Psychiatry, and Psychology and to an extent neurotheology.

- The Stanford-Binet Intelligence Scale to test intelligence developed by Lewis Terman (1921)
- Positive and Negative Syndrome Scale (PANNS),

¹¹ Functional limitations is argued for as a condition as it is capable of or can lead to mental health.

- Scale for the Assessment of Negative (SANS),
- Scale for the Assessment of Positive Symptoms (SAPS,
- Diagnostic classification and rating scales used in psychiatry and Brief Psychiatric Rating Scale (BPRS),
- Magnetic Resonance Imaging (MRI) - employs a strong magnetic field and radio waves creating a detailed image of the organs or tissues being examined within the body,
- Functional Magnetic Resonance Imaging (fMRI) – The scans focus is changes in the flow, and
- God helmet, also is known as Koren helmet or Koren octopus, employs very weak magnetic fields focusing on religious experiences and focuses on the temporal lobes. It was developed by Dr Michael Persinger and Stan Koren.

This research proposes for the future a *neuro-grey scale* (NGS). To get a perfect analysis in the theological examination of the brain NGS shall have to evaluate from all the four lobes for memory activities and an average analysis taken. This test will seek to address the notion in psychology that there are no absolute normal people. In as much as this hypothesis has existed, it has offered very little to justify itself. NGS will seek to address this void created by this hypothesis. The results of NGS will be tabulated on a grey scale whose shades will depict the levels of mental normality. The term "*grey*" is taken from the central nervous system though as a colour grey depicts the variation of the colour offers.

A.2 The hermeneutical argument on the notion of learning

In this section, we are not arguing from the definition based on hermeneutics, but on how the brain becomes a hermeneutical device in Dogmatics. From the onset, the researcher agrees with Erdi (1996), who argues that the brain is a hermeneutical device. For him, the brain is a tool for information storing, processing and creating the device. The brain as a hermeneutical device must have the capacity to carry out the hermeneutical tasks such as dogma. Thus Kaiser's (1991:4) view is that "Biblical interpretation is one of the most determinative fields of study for the theological task. Any improper moves made in the interpretive mission immediately affect the results obtained in theological construction."

Erdi (1996) offers that an attempt has been made to reconcile the "device approach" and the "philosophical approach" to the brain. This argument bears testimony on the value of the brain to theological studies. The philosophical approach frequently argued for this far has not valued the device approach to the brain. It is the interest of this dissertation to join others in reconciling the two approaches. Erdi (1996) argues further that the human brain, which is a structurally and

dynamically complex device, not only perceives but also creates a new reality: it is a hermeneutic device.

Newberg (2010:50) nonetheless argues that the brain has universal functions and thus all religious beliefs and all religious systems should be considered from a neurotheological hermeneutic. The term neurotheological hermeneutic may seem new yet addresses what should have been long discussed on the role of the rationality in theology much more Dogmatics. Newberg (2010:36) earlier argued that a philosophical treatise on morality and rational thought, or a hermeneutical analysis of a sacred text with emphasis on neuropsychological elements. In short, neurotheological studies should be inclusive of a diverse array of approaches that might provide insight into the relationship between the mind and religion. For him, much of the work in present-day theology consists of analysis and understanding of existing texts in a consistently hermeneutical context. In addition, that a theologian must start from the state of being in external, material reality since theology must begin with human experiences if they are to be interpreted (Newberg, 2010:32).

When Semrud-Clikeman (2018) discusses the hermeneutical effect of the brain on learning, he noted: "Just because you have a classroom full of students who are about the same age doesn't mean they are equally ready to learn a particular topic, concept, skill, or idea. It is important for teachers and parents to understand that the maturation of the brain influences learning readiness." Semrud-Clikeman (2018) argues further saying that a child with a learning disability will always have the disability. This argument agrees with this dissertation, which has valued the notion of competence. The hermeneutical notion of the brain being a "device" and the "philosophical" tool propagates that the device brain and the philosophical brain must act as a reliable tool in Dogmatics.

Finally, Newberg (2010:66) delineates that in this regard, we are also referring to the neurotheological hermeneutic in which any theological argument must be considered not only from the perspective of the culture and time, but also from the biological restrictions which shape this argument. The usage of the word biology draws in all manner of argument where the brain has to be fully acknowledged and understood in Dogmatics. We cannot practice Dogmatics without valuing the hermeneutical effect on the brain. Dogmatics, like many other schools of theology, shares a relationship with hermeneutics.

A.3 Policy and a catechism

This section focuses on available policy and catechisms available in the mainline Churches. The Reformed Church in Zambia's policy offers much hope than others when it comes to the

vulnerable and people in need. The teaching of dogma does not depend on mere papers and lesson plans but it involves the brain as well. This dissertation has argued that neurons play part to memory, which turns out to being important to understanding dogma. Nonetheless, policy and catechisms play part to this cause. It is therefore important to look at some church documents available such as the following.

Seventh Day Adventist policy, edited by McElhany, pages 5 – 6, 7, and 167 offers that;

"The 1946 General Conference Session action that all "changes or revisions of policy" in the Church Manual shall be "authorized by the General Conference session," reflects a conception of the authoritative status of General Conference sessions that have long been held. In the 1877 session, this action was taken:

"Resolved, that the highest authority under God among Seventh-day Adventists is found in the will of the body of that people, as expressed in the;

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Decisions of the General Conference when acting within its proper jurisdiction; and those decisions should be submitted to by all without exception unless they can be shown to conflict with the word of God and the rights of individual conscience." Review and Herald, vol. 50, No. 14, p. 106.

Ellen G. White wrote in 1909, "But, when, in a General Conference, the judgment of the brethren assembled from all parts of the field is exercised, private independence and private judgment must not be stubbornly maintained, but surrendered. Never should a laborer regard as a virtue the persistent maintenance of his position of independence, contrary to the decision of the general body." Testimonies, vol. 9, p. 260.

Long before this in 1875, Ellen G. White had written in the same vein; "The church of Christ is in constant peril. Satan is seeking to destroy the people of God, and one man's mind, one man's judgment, is not sufficient to be trusted. Christ would have His followers brought together in church capacity, observing order, having rules and discipline, and all subject one to another, esteeming others better than themselves." Testimonies, vol. 3, p. 445

In these inspired words, in the 1877 General Conference action, and in the need for well-defined rules that are requisite to good order, is found a basis for this Church Manual and its rightful claim upon us all, both ministry and laity.

The content of the Church Manual is the expression of the Seventh-day Adventist Church's understanding of Christian life and church governance and discipline based on biblical principles. It expresses the authority of a duly assembled General Conference session. "God has ordained that the representatives of His church from all parts of the earth, when assembled in a General Conference, shall have authority." Testimonies, vol. 9, p. 261.

2. The Church of the Living God

To belong to the church of God is a unique and soul-satisfying privilege. It is the divine purpose to gather out a people from the far corners of the earth to bind them into one body, the body of Christ, the church, of which He is the living head. All who are children of God in Christ Jesus are members of this body, and in this relationship, they may enjoy fellowship with each other and fellowship also with their Lord and Master.

The church is referred to in the Scriptures by such expressions as "the church of God" (Acts 20:28), "the body of Christ" (Eph. 4:12), "the church of the living God" (1 Tim. 3:15), the last name being the term chosen for the title of this chapter.

The word church is used in the biblical record in at least two senses: a general sense applying to the church in the entire world (Matt. 16:18; 1 Cor. 12:28), and in a particular sense applying to the church in a city or a province. Observe in the following texts where local churches are mentioned: the church at Rome (Rom. 1:6, 7), the church at Corinth (1 Cor. 1:2), the church at Thessalonica (1 Thess. 1:1). Note also the reference made to provincial churches: the churches of Galatia (1 Cor. 16:1), the churches of Asia (1 Cor. 16:19), the churches of Syria and Cilicia (Acts 15:41).

Christ, being the head of the church and its living Lord has a deep love for the members of His body. In the church He is to be glorified (Eph. 3:21); through the church, He will reveal the "manifold wisdom of God" (Eph. 3:10). Day by day He nourishes the church (Eph. 5:29), and His longing desire is to make of it "a glorious church, not having a spot, or wrinkle, or any such thing; but that it should be holy and without blemish" (Eph. 5:27).

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Care of Members - In the membership of a church, which has been dissolved or expelled, there may be loyal members who desire to remain with the Seventh-day Adventist communion. To ensure their welfare, their memberships shall be provisionally held for up to ninety days in the conference/mission/field church to allow the opportunity for those who desire to do so to have their memberships in the conference/mission/field church confirmed or transferred to another

church of their choice. The conference/mission/field committee shall evaluate their standing, and, if satisfactory, they may be recommended for membership in the conference/mission/field church or a church of their choice.

The conference/mission/field committee as set out in section 1 shall refer the names of members of a dissolved or an expelled church, which are under discipline, to the conference/mission/field secretary for early attention. Above regarding dissolution of churches because of loss of members

It is clear that the abstract here offered does not focus on the notion of the vulnerable nor needy persons. The Anglican Church too does not pay attention on the vulnerable persons; reference is made from the documents submitted here below.

Thirty-nine articles of the Anglican Church

“X. Of free will:

The condition of man after the fall of Adam is such that he cannot turn and prepare himself, by his natural strength and good works, to faith, and calling upon God. Wherefore, we have no power to do good works pleasant and acceptable to God, without the grace of God by Christ preventing us, that we may have a goodwill, and working with us, when we have that goodwill
XIII. Of Works before Justification:

Works done before the grace of Christ, and the inspiration of his Spirit are not pleasant to God, for as much as they spring not of faith in Jesus Christ, neither do they make men receive grace; or (as the School-authors say) deserve grace of congruity: yea rather, for that they are not done as God hath willed and commanded them to be done, we doubt not but they have the nature of sin.”

Anglican Diocese of Lusaka – Regulations (pp 38-39)

Abstract of the regulation on baptism

“5.3.1 Of Baptism;

5.3.1.1 Child and Infant Baptism.

5.3.1.1.1 For Children where both parents are available, both should consent to have their child baptized and the maximum age of the child under this form of baptism is ten years.

5.3.1.1.2 Two God Parents are required, who must both be communicants, and one of them being of the same sex as the child to be baptized.

5.3.1.1.3 Normally, both parents and God Parents should be baptized, united in Christian marriage and active Church members. In exceptional circumstances, it is permissible to baptize orphans and children of unbaptized parents, children born out of wedlock, or relatives are active members in the upbringing of the children.

5.3.1.1.4 Children in peril of death may be baptized privately and if the child recovers, it should be received in the Church publicly.

5.3.1.1.5 Children of eleven years and above should be baptized only after following a course of instruction for a period of not less than one year.

5.3.2 Baptism shall be administered only by an ordained Clergy, except in circumstances of illness; threatening death then a Lay Minister or any Communicant can baptize the sick.

5.4.3.1 Post primary should be instructed separately from children to a period of two years. This period translates to one year of instruction for baptism, and one-year instruction for confirmation.

5.4.4 Baptism of polygamists.

5.4.4.1 Baptism of those in polygamous marriage is not permitted.

5.4.4.2 Polygamous marriage of baptized Christians is not permitted.

5.4.4.3 Baptism of children from a polygamous marriage shall be permitted.”

Reformed Church of Zambia Constitution (p 70)

Abstract for the constitution and by-laws

26.5 “Mission and charity,

- c) To proclaim the Gospel to all in need of the Lord’s salvation
- d) To encourage and mobilize members in the section to actively participate in witnessing and mission activities
- e) To assist the Deacons in helping the needy, poor, widows, widowers and orphans who are vulnerable in the section.”

6.2 Conclusion

The dissertation in this section argues that it is important for policy makers to consider vulnerable and needy persons when coming up with dogmas and catechisms. Those that come to Church wish to come to God and should be helped meet their God. This dissertation may not justify the extent to which this can be done, but like the Reformed Church in Zambia, the other Churches and teachers of theology should consider person like those argued for in this dissertation. It is also clear that based on levels of competence people above the age of 12 years are capable of learning. Learning includes what the church teaches every time there is a gathering and when catechism is taught. On the other hand, we have seen that tools to assess persons that come for catechism classes is important.

CHAPTER 7: CONCLUSION

This study's focus has been on the role of rationality in Dogmatics. It has joined many other theological discourses, which have ventured into understanding the role of the brain in theology. For Neil Messer (2017:1), this kind of study does bring us to awareness of who we are. As Messer has argued, the brain does not just help us in social life but promotes our faith. This dissertation has become handy in that we have learnt from Apostle Paul saying, faith comes by hearing the word of God. This has been linked well by discussing *katastasi*, where the state of mind contributes to faith. Solomon, writing his Proverbs, states that a child must be taught while he/she is young and that they will not depart from it when they are grown. Teaching and learning, which as has been discussed very well in this dissertation, depends on *katastasi*. Additionally, FBM, FTM and neuroplasticity has guided the arguments in this dissertation that the Jesus event is a passed on event, not a witnessed event making neuroplasticity challenged. The narrative that follows focuses on much of what this dissertation has argued on.

This dissertation has also ventured into the Jewish theology, which seems to have not accounted for the role of the brain in their faith and theology as for them the heart - *leb* (*lebab*) is the organ for faith and reasoning. The role of the brain is not quiet visible in the reading of Scripture, faith and our belief in God. My point of departure in this dissertation is the work of the rationality in theology reflecting on what deficiency of rationality in the brain can do to the image of God. This is unlike the arguments that neurotheology has offered this far. It is clear that the arguments offered by Scholars like Newberg (2010), Brandt (2010), Ashbrook (1984) and d'Aquili' (cited in Newberg, 2010) is biased towards hermeneutics and not Dogmatics.

Carey Latta (2018) has argued that the image of God is the doctrinal tenets by which Christians understand what it means to be human, while Tertullian' argument is on the understanding that the image of God is the state of being. Not only on this argument but also on the relationship of man's form, he added. To argue on the undertaking, the historical view on the argument has been considered covering the Early Church, middle church and the modern church's theological understanding of the theme. The Patristic period's argument was that of human reasoning (McGrath, 2007:360-361). The Early Church' theology on the brain and rationality is not in the manner we understand it today, this dissertation has offered evidence in this regard. Whereas, in the medieval time we saw the emerging of theology as propounded by theologians and philosophers like Aristotle and Plato who lived in the Ancient Greek World. The works of this period was fully exploited by Thomas Aquinas while Plato according to Fowler (1952:201) spoke of the mind and wisdom. The Reformation and post-Reformation period is quiet on this debate in spite of it acknowledging Platonic influence of soul. This argument is supported by the

Calvinist theology whose emphasis was on the root of sin, which dwelt in the soul/mind argued Hallett (1991). Neurotheology in the modern period, however, has ventured into the issues of the mind but not as extensively discussed in philosophy and psychology. A number of theologians such as Dr Andrew B. Newberg (2010) and Joseph LeDoux (1998, 2003) have offered a notable contribution to current debates.

On the other hand, the argument offered by Tertullian and the Patristic period has valued the image of God by arguing on human reasoning, which involves the brain. It is also clear that what this period offered is the rational nature of man by referring to human reasoning (cf. McGrath, 2007:143-144). This dissertation has acknowledged that the Early Church did not have much to offer on this argument, as their theological focus was different. It is in the modern era that a lot that has to do with the contribution of the brain to theology has taken the central stage. Newberg (2010:23) argued that in ancient Greek's philosophy, it was not entirely clear where human thought and cognition took place. He adds that the derivative of the word "neuron" appears to come from the Greek and Latin words for "sinew" or "string," most likely because this is what nerves physically look like. It has been noted that the question of the brain is not just a subject of science but that of the Christian faith as well.

On the other hand, this dissertation has defined neurotheology. This was important because the term neurotheology is new to the world of theology. Brandt *et al* (2010:305) has defined neurotheology as the support structure of a sub-discipline to neuroscience, accommodating theology and science in the understanding and application of dogma. Reichenbach *et al* (1995:10-39) contribute that science bears a special aura in our culture and that to be scientific is to be objective. Whereas Black (2013) contributes that, the Creator of the brain gave humankind a neurological handbook, the Bible, and that we just have to embed its truths into our daily thinking. Neil Messer (2017:6), quoting Roskies, argues that our brain defines us, while Michael Fuller offers that the brain is a locus of so much that it is what is unique about human beings (Shakespeare, 2016:163).

This dissertation has valued etymology by reviewing words like 'mind' and 'heart' which cannot be taken for a single interpretation as that would reduce the ethos, pathos and logos of the biblical passages. For example, *nous* is translating as 'the mind comprising the faculty of perceiving and understanding, feelings, judging, determining and intellect. Whereas *phroneo* denotes to have understanding, to be wise, to feel; and to think, to seek and to strive for. *Dianoia* refer to the faculty of understanding, feeling, and desiring. For the Christian faith, these words are subjective and would mean as used in a passage of the Bible at times meaning heart or brain.

Jewish people seem not to have accounted for the brain in their theology, while they do so with other parts of the body (C.f. Matt. 5:29; Matt. 6:22, 23; Matt 15:17; 1 Cor. 12:14-23). This dissertation has indicated that the Jewish view of an organ for thinking is the heart (*Leb*) (C.f. I Kings 3:12). Daniel Goodman (2013) thinks that the Jewish people primary' contemporary mainstream Orthodoxy presupposes an omniscient, all-knowing God who authored both the Bible and science as their theological viewpoint. Nonetheless, we can only understand the Jewish people well by researching and finding out their arguments. Nonetheless, arguing on this notion has proven challenging as the Jewish people are both a people and a religion manifested in Judaism. Newberg and Rabbi Halpern (2018:9) have offered that the Jewish people have three attitudes, that of a rational group, indifferent group and the spiritualistic group. In modern Judaism, this would inform them of the understanding of the brain or its absence in their theology.

This dissertation has argued on the anatomy of the brain. This is important because the brain becomes the tool for decoding and encoding what is taught. The brain has many functional areas such as personality, reasoning and speech areas in the frontal lobe; sensory, hearing and speech understanding in the parietal lobe; smell and permanent (long term) memory in the temporal lobe as well as vision and visual processing in the occipital lobe. Of interest to this dissertation is the permanent memory found in the temporal lobe. Miller G. (2010) has argued that the act of remembering does change our memories in a process known as neuroplasticity. This has informed this dissertation well because dogma relies on memory. The question, which we still need answered is, the change that dogma has on memory as relating to neuroplasticity. This question should help us reflect on the way we offer dogma. We have learnt that neurons act as the pathways for brain activities and that they are capable of dying when they are less active denotes that dogma has to redesign itself as an active source for doctrine. This dissertation has argued that an assessment of this activity can be done using FBM and FTM.

On the other hand, drawing on their memory is of extreme importance to human beings. Our minds must have enough memory to function well. Human beings rely on memory to account for the past. Michelon (2006) has argued that we must have the memory capacity to hold and manipulate information in real-time. For Papalia and Wendkos Olds (1988:193), before we draw on memory functions, we must have first perceived it and heard it. All lobes do take part in in-memory processing. The systematic drawing below has demonstrated general memory processing in a person;

Encoding



Storage



Decoding

The other argument that this dissertation has offered is to whether the image of God is distorted by brain ailments. We have understood that the image of God is that of a man being created in the image and likeness of God different from that of animals and other created beings. In Genesis 1:24 God created animals and other living creatures in their kind yet man was made in God's likeness (verses 26, 27). We have also learnt that animals and other creatures are created after their own kind, while human being was not created in their own kind but the image of God before the Fall. It is the image of God, which offers us an opportunity to be like God, as we can invent, name, discover and participate in God's divine plan of salvation, an act never granted to other created beings.

This dissertation has noted that the argument is not about how close we are genetically to other created beings, but our position in God. For Carey Latta (2018), the image of God is the doctrinal tenet by which Christians understand what it means to be human. Whereas Tertullian's argument of the image of God is that it is a state of being and relating it to man's form (c.f. McGrath, 2007: 360-361). Primarily, the argument of 'man's form' reveals a lot. 'Form' being the visible shape or configuration of something draws us to argue that the state of being a 'visible shape or configuration' speaks to this dissertation.

For Latta (2018), the point of departure is that the mind consists of intelligence, rationality and language, which should not be measured against the standard of competence. This is a highly questionable argument as all discourses must be measured within the levels of competence and that this competence must be qualified to mean mental competence. This dissertation offers that the sender must be as mentally competent as the receiver for a meaningful dialogue. Dogmatics is a study that fully depends on rational and mental competence. A brain disorder may affect someone's personality, relationships and sense of identity and that some brain injuries can cause loss of awareness and interactions with the surroundings argues Neil Messer (2017:1). This leads us to what Latta defends when referring to his son Gas as he misdirected his argument by linking the argument to innocence. It has been argued that doctrinal teachings are not merely about innocence but the understanding of many doctrines such as, Ecclesiology, Christology, Soteriology, the doctrine of Scripture and the doctrine of God.

It has been argued that the image of God should be understood within the application of any of the three words; condition, where there is no deficiency of the rational element; state (*katastasi*) of being capable of rational thought or not, and that the image of God is a status not of prestige but of how others view your rational and mental competence. This *katastasis* has a dualistic state of being of sound mind or not. This is where one person can have the capacity for rational thought, while the other might not. We have discussed the linking concept of competence. The argument has been that dogma when offered depends on the sender and the receiver both being of sound mind. Latta argues that the mind has intelligence, rationality and gives us language and that we should not be measured against the standard of competence.

Finally, this dissertation concludes that the brain plays an important role in learning dogma. The Church throughout history has sought to teach its followers, yet it has fallen short of recognizing the significance of the brain. Therefore, this dissertation comes in hand to inform theology that we should account for parts of the body in our studies. It is also very cardinal to account for the role that the brain offers to theology, in spite of Jewish theology having not accounted for it. The Apostle Paul and Peter offer as a great relief in their use of the words *nous* (νοῦς or νόος) and *noemata* (νοήματα), which denotes a mental perception and thought. What theology should do now is to be prudent and accurately account for those parts of the body the Jewish people may not have account for. It is honorable to attest that the brain is an organ for rationality and that the theology by nature is a rational study.

BIBLIOGRAPHY

- Ahmed, A., 2008. Ontological, Epistemological and Methodological Assumptions: Qualitative Verses Quantitative. Helwan University of Egypt
- Ashbrook, J.B., 1984. "Neurotheology: The Working Brain and the Work of Theology." *Zygon: Journal of Religion and Science* 19 (9): 331-350.
- Alzheimer's Association (Editors). 2019. What is Dementia? Chicago. [Online] <https://www.alz.org/alzheimers-dementia/what-is-dementia>. [Accessed 18.07.2019]
- Benger, P., 2017. The Image of God. [Online] <https://paulbenger.net/2017/03/24/the-image-of-god/>. [Accessed 13.08.2018]
- Black, S., 2013. The Bible and the Brain. [Online] <http://www.covenanteyes.com/2013/03/12/biblical-neurology/>. [Accessed 29.05.2016]
- Brandt, P.Y., Clement, F. & Re Manning, R. 2010. Neurotheology: challenges and opportunities. *Review dissertation. The University of Lausanne, Faculty of Theology and Religious studies. Lausanne. Switzerland.* 161(8): 305-309.
- Brown & Kulik, 1977 Flashbulb Memory Theory. [Online] <https://ibpsych.themantic-education.com/2017/10/31/flashbulb-memory-theory-brown-and-kulik-1977/>. [Accessed 12.07.18]
- Carter, R. 2018. Faith Seeking Understanding Our Christian Understanding of God. [Online] http://www.smitfcc.org.uk/images/uploads/100424_Chinese_Church_Awayday.pdf. [Assessed 15.05.2018]
- Collins, L.G., 1995. Does the Bible contradict accepted Biological concepts? California State University Northridge, Northridge. pp. 15-23 [Online] <http://www.csun.edu/~vcgeo005/heart.html> [Accessed 29.05.2016]
- Creswell, J. W. 2012. Qualitative inquiry and research design: Choosing among five approaches. Thousand Oaks, CA: Sage.
- Cunningham, P.F., 2011. *The Journal of Mind and Behavior*, Institute of Mind and Behavior, Inc. 32 (3): 223-249

- Davis, J.J., 2006. The moral status of the embryonic human: Religious perspectives. *Ethics and Medicine*. 22(1):9-21.
- Delprato, D.J. 1979. The Interbehavioral alternative to Brain-Dogma. *The Psychological Record*. Springer International Publishing. Eastern Michigan University. 29(3): 409–418.
- Editors Anglican Prayer Book, 1989. Catechism (Subject). Anglican Church of Southern Africa. Harper Collins Publisher. Jeppestown. pp. 421-444
- Editors Anglican Diocese of Lusaka. 2016. Regulations of the Anglican Diocese of Lusaka. (Amended) ADL. Lusaka.
- Editors Encyclopedia Judaica (2008) Encyclopedia Judaica: Anatomy. *Jewish Virtual Library: A project of Aice*. [Online] <https://www.jewishvirtuallibrary.org/anatomy>. [Downloaded 25.06.2019]
- Editors Reformed Church of Zambia. 2013. The Constitution, By-Laws and Procedures of the Reformed Church in Zambia. Mega Digital. Parow Industrial. South Africa.
- Editors New Apostolic Church International. 2014. Catechism of the New Apostolic Church: In question and answer. Zurich. Switzerland.
- Ellis, T.J., and Levy, Y., 2008. A framework of problem-based research: A guide for the researchers. *Information Science: The International Journal of Emerging Trans-discipline*. 11:17-33. ISSN 1547-9684
- Erdi, P., 1996. (Moreno-Diaz R and Mira-Mira, J. Eds.) The complexity of the Brain: Structure, Function, and Dynamics. In: Brain Process, Theories and Models. MIT Press, Cambridge. pp 88-97
- Erdi, P. 1996. The brain as a hermeneutic device. KFKI Research Institute for Nuclear Physics, Hungarian Academy of Sciences, Budapest [online] <https://www.ncbi.nlm.nih.gov/pubmed/8734526>. [Accessed on 14.01.2018]
- Fingelkurts Alexander A. and Fingelkurts Andrew A. 2009. Is Our Brain Hardwired to Produce God, or is Our Brain Hardwired to Perceive God? A Systematic Review on the Role of the Brain in Mediating Religious Experience. 1BM-Science – Brain and Mind Technologies Research Centre, *Cognitive Processing*, 10 (4): 293-326 Espoo, Finland
- French, T.M., 1936. Bible Doctrines (Number One): Sabbath School-Lesson Quarterly. South Africa

- Goodman, D., 2013. Right-Brain Religion, Left-Brain Science. *Harvard Divinity Bulletin*. Harvard Divinity School. Winter/Spring Massachusetts 41: 1& 2
- Graham, R., 2001. Is our Mind our Brain? [Online] <http://www.simplyBible.com/f73a.htm>. [Retrieved 29.05.2016]
- Glover, D., 2018. James B. Ashbrook: Pioneer in Neurotheology. *Zygon: Journal of Religion and science*. Wiley-Blackwell. 53(2)
- Hargreaves, J., 1979. A guide to the Parables. (Revised Edition) SPCK. London
- Hawking, S.W. 1988. A Brief History of Time: From the Big Bang to Black Holes. Bantam: New York.
- Hallett, A., 1991. The Theology of John Calvin. Part Two: The Christian's Conflict with the Flesh. [Online] http://archive.churchsociety.org/churchman/documents/Cman_105_3_Hallett.pdf. [Retrieved 10.07.2017]
- Johnson, O.A., 1917. Bible Doctrines (4th Revised Edition). Press of Walla-Walla College. College Place. Wash. USA
- Judd Jr., F.F., 2003. Parables of Jesus: The Priceless Parables. The Church of Jesus Christ of Latter-Day Saints. [Online] <https://www.churchofjesuschrist.org/study/ensign/2003/01/parables-of-jesus-the-priceless-parables?lang=eng>. [Accessed 16.07.2019]
- Kadden, B. B., 2019. An understanding of the Heart - Middah Binat HaLev *ReformJudaism.org* [Online] <https://reformjudaism.org/understanding-heart-middah-binat-halev>. [Accessed 19.06.2019]
- Kaiser Jr., W.C., 1991. Hermeneutics and the Theological Task. 1 *Trinity Journal* 12 (1): 3-14
- Kaiser, K. 2009. Protecting Respondent Confidentiality in Qualitative Research. *Qual. Health Res.* 19(11):1632-1641. [Online] <https://www.ncbi.nlm.nih.gov/pmc/dissertations/PMC2805454/>. [Accessed 17.11.2017]
- Kapogiannis, D., Barbey, A.K., Su, M., Zamboni, G., Kruger, F. & Grafman, J. 2009. Cognitive and neural foundations of religious belief. *PANAS*, 106(12):4876-4881

- Kennedy, H. 2006. Beyond anonymity, or future directions for internet identity research. [Online] <http://journals.sagepub.com/doi/abs/10.1177/1461444806069641>.
[Accessed 16.11.2017]
- Lammers, SE. & Verhey, A. eds. 1987. On Moral Medicine: Theological Perspectives in Medical Ethics. *Library Journal*. William B. Eerdmans Pub. Co. (1):309-312.
- Latta, C., 2018. My Son's Down Syndrome Showed Me the Real Imago Dei [Online] <https://www.christianitytoday.com/ct/2018/april-web-only/down-syndrome-imago-dei.html>. [Accessed 12.05.2018]
- LeDoux, J., 1998, 2003. The emotional brain: The mysterious underpinnings of emotional life. Simon and Schuster publishers. New York.
- Long, A.A., 1974. Hellenistic Philosophy: Stoics, Epicureans, Skeptics. Gerald Duckworth & Company Limited. London.
- Lorell, B.H., FDA & Life Sciences Group, King & Spalding LLP, 2015. Informed consent in clinical research: Consensus recommendations for reform identified by an expert interview panel. *SAGE*. 12(6): 692–695. 1700 Pennsylvania Avenue, NW, Washington, DC 20006-4706, USA.
- Mastin, L. 2018. Human memory. [Online] http://www.human-memory.net/brain_parts.html. [Accessed 15.07.2018]
- May, P. 2018. What is the Image of God? [Online] <https://www.bethinking.org/human-life/what-is-the-image-of-god>. [Accessed 16.07.2018]
- Mayo Clinic (Editors) 1998-2019. Patient Care & Health Information: Disease & Conditions; Cerebral palsy [Online] <https://www.mayoclinic.org/diseases-conditions/cerebral-palsy/symptoms-causes/syc-20353999>. [Accessed 12.06.19]
- Mayo Clinic (Editors) 1998-2019. Patient Care & Health Information: Disease & Conditions; Down syndrome. [Online] <https://www.mayoclinic.org/diseases-conditions/down-syndrome/symptoms-causes/syc-20355977>. [Accessed 12.06.2019]
- McBurney, D.H., 2001. Research Methods. 5th Edition. Wadsworth/Thomson Learning. Belmont. USA.

- McElhany, J.L., 1932. Seventh-day Adventist Church Manual (first edition) General Conference Committee (pub). USA. p 204. [Online] https://www.bibelschule.info/streaming/General-Conference---Seventh-day-Adventist-Church-Manual_21110.pdf . [Retrieved 27.06.19]
- McGrath, A.E., 2007. Christian Theology: An Introduction. 4th Ed. Blackwell Publishing, Oxford.
- Messer N, 2017. Theological Neuroethics; Christian Ethics Meets the Science of the Human Brain Bloomsbury T&T Clark Publisher Plc. Winchester. UK
- Michelon, P., (2006) What are Cognitive Abilities and Skills, and How to Boost Them? *SharpBrains*. [Online] <https://sharpbrains.com/blog/2006/12/18/what-are-cognitive-abilities/> . [Accessed 24.12.2019]
- Miller G. 2010. Smithsonian Magazine [online] <https://www.smithsonianmag.com/science-nature/how-our-brains-make-memories-14466850/>. [Accessed 12.07.2018]
- New Apostolic Church (2012), Catechism of the New Apostolic Church. Zurich.
- Newberg, A., 2010. Principles of Neurotheology. Paperback. Thomas Jefferson University and Hospital. Philadelphia
- Newberg, A. & Rabbi Halpern, D., 2018. The Rabbi's Brain: Mystics, Moderns and the Science of Jewish Thinking, Turner Publishing Company, Nashville, Tennessee, New York
- Nijhawan, L.P., Janodia, M.D., Muddukrishna, B.S., Bhat, K.M., Bairy, K.L., Udupa, N. & Musmade, P.B. 2013. Informed consent: Issues and challenges. *Journal of Advanced Pharmaceutical Technology & Research*. Pub. Society of Pharmaceutical Education & Research. 4(3): 134–140. [Online]
<https://www.ncbi.nlm.nih.gov/pmc/dissertations/PMC3777303/>. [Accessed 16.11.2017]
- Papalia, D.E. and Wendkos Olds, S. 1988. Psychology (International Student Edition-2nd Ed) McGraw-Hill Book Company. New York
- Patestas, M.A. and Gartner L.P. 2000-2019. A Textbook of Neuroanatomy (Topic: Gross Anatomy of the Brain) 2nd edition. Blackwell Pub. © John Wiley & Sons, Inc. (e-chapter 6) [Online] <http://www.blackwellpublishing.com/patestas/chapters/6.pdf> [Downloaded 24.06.2019]
- Reichenbach B.R., Elving, A.V., 1995. On Behalf of God. Michigan: WM.B. Eerdmans Pub. Co

- Rosenhan, D., 2018. Being Sane in Insane places. *Robyns Revision*. [Online] <https://robynsrevision.weebly.com/rosenhan-being-sane-in-insane-places.html>. [Retrieved 01.10.2018]
- Ross, D. (Editor) 2019. The 39 Dissertations. (1562). British Express. [Online] <https://www.britainexpress.com/History/tudor/39dissertations-text.htm>. [Retrieved 27.06.2019]
- Saleema, A. and Alexander, C., 2018. Applying Meta-Theory to Qualitative and Mixed-Methods Research: A Discussion of Critical Realism and Heart Failure Disease Management Interventions Research [Research Article] *International Journal of Qualitative Methods* [Online] <https://doi.org/10.1177/1609406918790042> [Retrieved on 13.11.20]
- Schmid A. A., 2002. Rationality. *Journal File*, <https://msu.edu/user/schmid/rationality.htm>. [Accessed on 23-10-20]
- Schwartz J.M., Begley S., 2009. The mind and the Brain: Neuroplasticity and the Power of Mental Force. HarperCollins Pub. (E-books). Fulham, London
- Semrud-Clikeman, M., 2018. Research in Brain Function and Learning. University of Minnesota Medical School. [Online] <https://www.apa.org/education/k12/brain-function.aspx>. [Retrieved 12.10. 2018]
- Shakespeare, S. (Editor). Freeman, A. 2016. Modern Believing. *The Journal of Theological liberalism*. Liverpool University Press. 57(2):155-130, 163-171
- Shatz, C., Tottenham, N., Pascual-Leone, A. 2019. Harnessing the power of Neuroplasticity: The Nuts and Bolts of better Brains (Topic) McKhann, G. (Host) YouTube. Accessed on 12.08.2019
- Sichamba, G., Moono, M., Maambo, C., Simbeye, J., Chirwa, B, & Mphande, R.N. 2018. Educational Research 1. Chalimbana University Press. Lusaka.
- Sierra, M., Berrios, G.E., 1999. Flashbulb memories and other repetitive images: A psychiatric perspective; *Comprehensive Psychiatry*. 40(2): 115-125
- Singh Sidhu, K., 2006. Methodology of Research in Education. First edition. Sterling Publishing Private Limited. New Delhi.
- Spurway, N., 2009. Theology, Evolution and the Mind. Cambridge Scholars Pub. Cambridge

- Thye, M.D., Ammons, C.J, Murdaugh, D.L. & Kana, R.K. 2018. Differential recruitment of theory of mind-brain network across three tasks: An independent component analysis. *Behaviour Brain Res.* 16(347):385-393
- Tverberg, L., 2018. Greek Brain, Hebrew Brain: The Way Parables Worked. *Reading the Bible with Rabbi Jesus* (Baker, 2018), p 96-100
- Walford, G. 2006. Research ethical guidelines and anonymity. *International Journal of Research & Method in Education* 28 (1): 83-93.
- Zizioulas, J.D., 1985. *Being as Communion*. St Vladimir's Seminary Press. London.

ANNEXURE A: QUESTIONNAIRE FOR PERSONS WITH NEURO CHALLENGES

QUESTIONNAIRE FOR PERSONS WITH NEURO CHALLENGES

PARTICIPANTS NUMBER: _____ AGE: _____

GENDER: _____ OCCUPATION: _____

MARRITAL STATUS: Single: _____ Married: _____

Kindly take a minute of your precious time to answer the following simple Questionnaire

A. What highest level of education have you attained?

B. Do you attend church?

Yes

☐

No

☐

C. What is the name of your church?

D. Are you baptized?

Yes

☐

No

☐

E. Are you a communicant?

Yes

☐

No

☐

F. Who is Jesus?

G. What is the church?

H. What does the church teach about God?

I. Do the teachings of the church help you improve your relationship with God?

J. What do you think is the role of the rationality in learning the doctrinal teachings?

K. In three sentences only, outline what you learnt last Sunday.

L. Have you had any training in catechism?

Yes

No

Thank You for your faithful answers and time.

ANNEXURE B: QUESTIONNAIRE FOR CHURCH LEADERS

QUESTIONNAIRE FOR CHURCH LEADERSHIP

NAME OF INSTITUTION REPRESENTED _____

CHURCH POSITION: _____

Kindly take a minute of your precious time to answer this simple Questionnaire

i. Do you have in your Diocese/Presbyter persons with special needs?

Yes

☐

No

☐

ii. Why do they attend the church?

iii. Does your church have policy on persons with mental disability?

v. Does their mental ailment disadvantage them in acquiring doctrinal teachings?

vi. Do you baptize persons with mental disability?

Yes

☐

No

☐

vii. How many have you baptized before?

viii. If not why?

ix. How many persons with mental disability in your church (Parish) received any form of training in catechism?

Any other Comment

Thank You for your faithful answers and time.

ANNEXURE C: INFORMED CONSENT

Consent to Participate in a Research Study

For Masters of Theology in Dogmatics at North West University

By Rev Fr Zacchaeus Zulu

Title of Study: A systematic theological inquiry into the role of rationality in Dogmatics

Participant:

Name: _____

Gender: _____

Cell Number: _____

Parental or Institution consent

Name: _____

Relationship: _____

Cell Number: _____

Introduction

- ❖ You are being requested to be in a research study of theology assessing persons with neural challenges
- ❖ You have been selected as a possible participant because of your neural challenge
- ❖ You are being asked that you read this form and ask any questions that you may have before agreeing with this study.
- ❖ Your truthfulness shall be of great value to this study.

Purpose of Study

- ❖ The purpose of the study is to assess the role of rationality in Dogmatics
- ❖ Note that this research may be published as a book for the community of theology to aid future studies.

Description of the Study Procedures

- ❖ If you agree to be in this study, you will be asked to do the following things:
 - I. Respond by way of writing your understanding of some basic church doctrines such as that of baptism and the Trinity.
 - II. Grant us evidence of your baptism and any other sacraments certificate
 - III. Present to this study your academic qualifications
 - IV. And that the questionnaire shall be given to you for response for a period of three weeks.
 - V. And that an alternative course on catechism shall be offered for three weeks and there after a test shall be offered to examine your understanding of the materials learnt and that the outcome shall be measured against your ability to respond.

Risks/Discomforts of Being in this Study

- ❖ The study has the following risks:
 - I. You risk being introduced to teachings, which you may not comprehend though no physical risks are anticipated.
 - II. You risk coming out of your comfort zone as you may wish to take up the whole of the church doctrines.
 - III. You risk judging yourself negatively though this study will offer you spiritual support.
- ❖ Not much risks foreseeable or expected to affect you in your participation in this study. This is not void of the unknown risks that may arise from the study.

Benefits of Being in the Study

- ❖ No monetary benefits are to be anticipated however all participants will have your voices and plight heard by means of expressing yourselves to the world. Though a copy of the Holy Bible shall be given to persons with special needs

Confidentiality

- ❖ This study is anonymous and that no information about your identity collected will be retained.
- ❖ The records of this study will be kept strictly confidential. Research records will be kept in a secured place and that all electronic information will be coded and secured using a password to protect the files. In addition, that we will not include any information reported in this study, be published with possibilities of your identity traceable to you.
- ❖ In case your identity can be disclosed in the material that is published, you will be given the opportunity to review and approve any material that is published and that you shall be acknowledged.

Right to Refuse or Withdraw

- ❖ Your decision to participate in this study is voluntary. You retain the right to refuse in taking part in this study, at any time, without affecting your relationship with the researcher. You have the right not to answer any single question, as well as to withdraw completely and not respond to the questionnaire at any point during the process and that you have the right to request that the researcher does not use any of your interviewed material.

Right to Ask Questions and Report Concerns

- ❖ You have the right to ask questions about this research study and to have those questions answered by me before, during or after the research. If you have any further questions about the study, at any time feel free to contact me, Rev Fr Zacchaeus Zulu in person, by call on the number +260 966 721 473 or *email* me on wazulubk@yahoo.com. If you have any other concerns about your rights as a participant that has not been answered by me,

you may contact Dr Manitza Kotze at North West University, Potchefstroom or her co-supervisor, Dr Charles Mbewe a medical lecturer at University of Zambia Ridgway Campus, Lusaka

Consent

- ❖ Your signature below indicates that you have decided to volunteer as a research participant for this study, and that you have read and understood the information and terms provided above. A signed and dated copy of this form will be given to you, along with any other printed materials deemed necessary by this study.

Research Participants Name: _____

Research Participants Signature: _____ Date: ____/____/2018

Researcher's Name: _____

Researcher's Signature: _____ Date: ____/____/2018

ANNEXURE D: RECRUITMENT OF PARTICIPANTS

Recruitment material

Recruitment Agreement form

Date: ____/____/2018

Name of Participant: _____

Address of Participant: _____

City: _____

Purpose: On account of a Dissertation for Masters in theology at North West University, Potchefstroom Campus

Title: A systematic theological inquiry into the role of rationality in Dogmatics

Dear _____

My desire to contribute to the world of theology has lead me to take up a dissertation to be presented at North West University, in which I wish to bring to light the plight of person just like you, who have a neurological challenge. Nonetheless, you are in the church yet the church has not fully availed you with the full rites of a Christian. This is an assumptive position only to be concluded by this undertaking. The church in its dogma has doctrines of which therein is the doctrine of the church and that of the sacraments of which you are entitled to.

I have written this recruitment agreement letter to let you know about an opportunity to participate in a research study about neurotheology in the field of theology. This study is being conducted by me, Zacchaeus Zulu for my Masters programme in theology at the North West University in South Africa at Potchefstroom campus. This study will involve understanding the plight of persons living with neurological challenges yet are members of the Church and are deprived of the rite of a believer.

I got your details from your Reverend/Pastor/Bishop/Elder_____. I pray you will find this study helpful and that a lot of others shall be helpful because of this study. It is my prayer that you will be in a position to respond accordingly when requested to do so. Where you will not be in a position to respond due to your condition, your inability will be assessed as informing this study. Your signing of the consent form will be viewed as your willingness to participate in this study. This will equally be upheld in the case were a second part consent is entered.

With much appreciation to your goodness, I wish to thank you in advance for your cooperation and willingness to participate in this study.

A handwritten signature in black ink, appearing to be 'Z. Zulu', with a long horizontal stroke extending to the right.

Yours sincerely,

Rev Fr Zacchaeus Zulu.

Call: +260 966 721 473

ANNEXURE E: TOOLS FOR ASSESSING RATIONALITY IN NEUROTHEOLOGY

This study has been sampled based on a target group. This study has assessed five Anglican Parishes in Lusaka Diocese and three Reformed Church of Zambia (RCZ) of Lusaka Province. In the interest of good output, the paper has considered three other denominations from amongst the Pentecostal Churches, SDA and New Apostle respectively, thus cutting across theological paradigms and reaching at a correct analysis. The latter was the leaderships of the Church so that the quality of the research is balanced and well informed. This is guided by Sichamba *et al* (2018: 26-27) who argued that a population refers to an entire group of persons or elements that have at least one thing in common, such as theology which this dissertation offers as a common point.