

A Public Theologian:

**A Critical Study of J. Wentzel van Huyssteen's
Postfoundationalist Facilitation of
Interdisciplinarity.**

**Dissertation presented for the Degree of Doctor of Theology
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Gys M. H. Loubser

March 2012, Stellenbosch, South Africa.

Opsomming:

Hierdie proefskrif is 'n kritiese refleksie op Van Huyssteen se postfunderende fasilitering van interdisiplinariteit - hier spesifiek tussen teologie en die wetenskappe. Hierdie refleksie word in drie dele gedeel.

Eerstens volg hierdie proefskrif die ontwikkeling van Van Huyssteen se postfunderende benadering tot menslike rasionaliteit. Van Huyssteen neem kritiese realisme aan en breek met fundering benaderinge tot teologiese metodiek. Hy besef dat sy projek deel vorm van die postmoderne beweging, maar onderskei sy projek binne die postmoderne projek as postfunderend. Volgens Van Huyssteen erken die postfunderingsdenker dat menslike kennis kontekstueel gevorm word, maar besef dat menslike rasionaliteit nie konteks-gebonde is nie.

Tweedens bespreek hierdie proefskrif Van Huyssteen se voorstel aangaande die fokus, ervaringsbestek en hermeneutiese strukture van teologiese refleksie. Die postfunderende teoloog reflekteer op lewensienings wat religieuse ervaring genereer as die beste beskikbare verduideliking van die gelowige se ervaring. Verder bespreek hierdie proefskrif Van Huyssteen se voorstel dat die Bybel 'n versameling van religieuse ervarings is wat deel vorm van die hermeneutiese strukture van teologiese refleksie.

Laastens bied hierdie proefskrif 'n interpretasie van Van Huyssteen se postfunderende fasilitering van interdisiplinêre gesprek en refleksie. In dié proses word geargumenteer waarom Van Huyssteen tereg as 'n publieke teoloog beskou kan word.

Sleutelwoorde:

postfunderende, rasonele agent, transversaliteit, interdisiplinêre gesprek, menslike rasionaliteit, gedeelde bronne van rasionaliteit, epistemologie, wetenskapsfilosofie, evolusionêre epistemologie, kognitiewe vloeibaarheid, paleoantropologie, publieke teologie.

Abstract:

This dissertation is a critical reflection on Van Huyssteen's postfoundationalist facilitation of interdisciplinarity - specifically between theology and the sciences. It does so in three parts.

Firstly, this dissertation follows the development of Van Huyssteen's postfoundationalist approach to human rationality. By adopting a critical realist stance, Van Huyssteen breaks away from foundationalist approaches to theological methodologies. He engages the postmodern project and, while recognising that his academic project is part of the postmodern project, distinguishes himself within this project as a postfoundationalist. He explains that a postfoundationalist acknowledges that human knowledge is contextually shaped, but recognises that human rationality is not contextually bound.

Secondly, this dissertation discusses Van Huyssteen's argument concerning the focus, experiential scope and heuristic structures of theological reflection. The postfoundationalist theologian, according to Van Huyssteen, reflects on views of life that generate religious experience as the best available explanation of believers' experiences. Integral to this understanding of theological reflection is Van Huyssteen's argument for understanding Scripture as a collection of reflections on religious experience that forms part of the heuristic structure of theological reflection.

Finally, this dissertation presents an interpretation of Van Huyssteen's postfoundationalist facilitation of interdisciplinary reflection and argues that Van Huyssteen should be counted amongst public theologians.

Keywords:

postfoundationalist, rational agent, transversality, interdisciplinary conversation, human rationality, shared resources, epistemology, philosophy of science, evolutionary epistemology, cognitive fluidity, paleoanthropology, public theology.

Table of Content:

Acknowledgments	iii
Opsomming	v
Abstract	vi
Introduction	1
Descriptive outline	21
Part One – From Methodology to Rationality	25
Chapter One – Foundationalist Approaches	25
Chapter Two – Nonfoundationalist Approaches	58
2.1 Postmodern Thought in Science	66
2.2 Postmodern Thought in Theology	72
Chapter Three – A Postfoundationalist Approach	89
3.1 Shared Resources of Rationality	94
3.1.1. Progressive Problem-Solving	97
3.1.2 Rhetoric	105
3.1.3 The Rational Agent	110
3.1.4 Truth	122
3.1.5 Transversality	126
3.2 Evolutionary Epistemology and Cognitive Fluidity	132
3.3 Summary	145

Part Two – Postfoundationalist Theology	148
Chapter Four – A Postfoundationalist’s Theology	151
4.1 Religious Experience	151
4.2 A Postfoundationalist Public Theology	192
Part Three – Postfoundationalist Facilitation of Interdisciplinary Conversation and Reflection	219
Chapter Five - Postfoundationalist Interdisciplinary Conversation	222
Chapter Six – Postfoundationalist Interdisciplinary Reflection	243
Conclusion	264
Bibliography	271

Introduction

J. V. Wentzel van Huyssteen¹ is one of the leading scholars in the world today working in the rapidly growing field popularly known as science and religion. He states his position clearly in the introduction to his Gifford Lectures (2004), published as *Alone in the World? Human Uniqueness in Science and Theology* (2006):

...I reject the idea that the domain of religious faith and the domain of scientific thought are exemplified by rival and opposing notions of rationality. I argue instead that these different seemingly incompatible reasoning strategies actually share in the resources of human rationality and are therefore able to be linked in interdisciplinary dialogue (2006:xv).

Several conversations that are crucial to his own thought and work are succinctly encapsulated in these words, including his rejection of the widespread idea that religion and science are necessarily to be regarded as rivals, his conviction that both religion and science share the same resources of human rationality, and his passionate concern that these often seemingly incompatible reasoning strategies could and should be linked in constructive interdisciplinary conversation.

More than a decade earlier he already indicated that his own insights in this regard developed gradually over a long period in his own academic biography. In the opening

¹ J. V. Wentzel van Huyssteen is Princeton Theological Seminary's James I. McCord Professor of Theology and Science. He holds an MA in Philosophy from the University of Stellenbosch in South Africa, and a DTh in Philosophical Theology from the Free University of Amsterdam. His areas of academic interest include interdisciplinary theology, theology and science, and religion and scientific epistemology. Wentzel van Huyssteen was Head of Biblical Studies at the University of Port Elizabeth, South Africa, from 1972 through 1991. During this time he published numerous articles and several books. One of these, *Theology and the Justification of Faith: Constructing Theories in Systematic Theology* (Wm. Eerdmans, Grand Rapids 1989), was awarded the Andrew Murray Prize and also the Venter Prize for Academic Excellence. Moreover, Van Huyssteen teaches courses on the role of worldviews in theological reflection, faith and culture, theology and the problem of rationality, theology and cosmology, and theology and evolution, theology and neuroscience, and the scientific roots of theological anthropology. Van Huyssteen has read numerous papers and lectured widely, not only in the USA, Canada and South Africa, but also in Poland, Denmark, The Netherlands, England, Scotland, Switzerland, Germany and Italy. He delivered the Gifford Lectures at the University of Edinburgh in 2004, titled "Alone in the World? Human Uniqueness in Science and Theology," and published in 2006 by Wm. B. Eerdmans (See Van Huyssteen's CV, Princeton Theological Seminary website).

argument of *The Shaping of Rationality: Toward Interdisciplinarity in Theology and Science* Van Huyssteen explains:

It took me a long time...to grasp that in trying to *understand* what scientific reflection is about, and in trying to *understand* what theological reflection is about, the answer is hidden in the *understanding* itself (1999:1).

In other words, his own insight and his present convictions regarding science and religion – not rivals; shared resources of rationality; to be linked in interdisciplinary conversation – are the results of his own story, of the gradual deepening of his own understanding of *understanding*, of his own growing insight into the nature of human rationality and of the potential of interdisciplinary conversation.

Van Huyssteen himself provides more details on his own convictions regarding rationality and therefore regarding the potential of this kind of conversation when he argues for a postfoundationalist understanding of rationality that will, according to him, facilitate the kind of complex, complementary and boundary-crossing conversations needed today:

Over against the objectivism of foundationalism and the extreme relativism of most forms of nonfoundationalism, a postfoundationalist notion of rationality helps us to acknowledge contextuality, the shaping role of tradition and of interpreted experience, while at the same time enabling us to reach out beyond our own groups, communities, and cultures, in plausible forms of intersubjective, cross-contextual, and cross-disciplinary conversations (2006:10).

Again, several crucial aspects of his notion of a postfoundationalist approach, distinguished from foundationalist and nonfoundationalist approaches, which are two widespread and dominant forms of thought in our contemporary world, become clear in this brief quotation.

By adopting a postfoundationalist approach he affirms the key importance of context, tradition and interpreted experience in our rational ways of living in the world, but at the same time he affirms the necessity of reaching out from one's own contexts, tradition and interpreted experiences in order to meet, dialogue with and learn from others and their contexts, traditions and interpreted experiences.²

This dissertation intends to elucidate Van Huyssteen's postfoundationalist understanding of human rationality by illuminating, clarifying and distilling Van Huyssteen's postfoundationalist facilitation of interdisciplinarity.

This is done by, firstly, understanding why and how Van Huyssteen developed what he calls a *postfoundationalist* approach. It follows his own story and reconstructs his own development, to which he referred when he said: took me a long time to grasp.

Understanding the reason *why* Van Huyssteen's work developed as it did is paramount in understanding *how* it facilitates interdisciplinary research in theology and science today. That is, after all, where this fascinating story of growing insight into the nature of human rationality is leading. Van Huyssteen's work is not only contextually inspired, but also contextually directed.

The dissertation is therefore, secondly, an attempt to understand and reconstruct his views on interdisciplinary conversation, which is made possible by his postfoundationalist views of rationality. A detailed description of Van Huyssteen's postfoundationalist approach is thus offered in order to clarify, illuminate and untangle the smaller convictions, arguments and logic behind his nuanced approach. Although Van Huyssteen's postfoundationalist approach functions effortlessly as a seamless whole, it is necessary to familiarise oneself with the different theories he drew on in developing this approach.

² Although it was not his original intent Van Huyssteen developed a model of rationality that illuminated the public nature of theological reflection and broadened the concept of public theology. Accordingly, in the conclusion this dissertation suggests, along with other scholars, that Van Huyssteen should be counted amongst public theologians.

Finally, the dissertation distils the way that his postfoundationalist approach facilitates interdisciplinary reflection in theology and science. Only when observed in active progress does Van Huyssteen's postfoundationalist approach become fully intelligible. This dissertation does not necessarily follow the development of Van Huyssteen's academic project chronologically, but it does follow the chronological development of each aspect of Van Huyssteen's academic project. It intends to integrate and channel all his arguments into one focused rendition of a postfoundationalist facilitation of interdisciplinary research in theology and science. Additionally, it is important to note that the dissertation intends to unlock Van Huyssteen's language and thought process, and should therefore be seen as an introduction to and an overview of Van Huyssteen's work, rather than an extension of it.

Furthermore, because the purpose of this dissertation is to explain what is at the heart of Van Huyssteen's academic project, namely interdisciplinarity, it will focus primarily on the work relating to interdisciplinary reflection. This is not to disregard other aspects of Van Huyssteen's academic project, but rather an attempt at illuminating his most profound contributions to the contemporary discussion on theological methodology, rationality and interdisciplinarity.

As previously stated, it is essential to understand what motivated Van Huyssteen's search for epistemological adequacy and why his academic project developed as it did. For that reason, it will be useful to consider what led up to Van Huyssteen's reflections on interdisciplinarity.

Jacobus Wentzel Vrede van Huyssteen was born on the 29th of April 1942 to a DRC (Dutch Reformed Church) missionary family. He graduated from Bellville High School, Cape Town, South Africa and went on to receive degrees in theology and philosophy at the University of Stellenbosch, South Africa.³ After that he received his D.Th, under the supervision of Prof. Dr. G. C. Berkouwer, in 1970 from the Vrije University of

³ Van Huyssteen's degrees: B.A. (*cum laude*) (1963); BA Hons (Philosophy) (*cum laude*)(1964); BTh (1966); MA Philosophy (*cum laude*)(1966): Topic: *Truth and Relativism in the Thought of Maurice Merleau-Ponty*.

Amsterdam, Netherlands entitled *Die Funksie van die Rationele in die Denke Van Wolfhart Pannenberg* [Rationality and Faith in the Thought of Wolfhart Pannenberg]. This dissertation was published as *Teologie van die Rede: Die Funksie van die Rationele in die Denke van Wolfhart Pannenberg* (1970) [Theology of Reason: The Function of Rationality in the Thought of Wolfhart Pannenberg]. His dissertation foreshadowed his own academic project, as he concludes it by stating that theology has to participate in a conversation with philosophy and other sciences, because God acts through our shared history and reality (cf. 1970:243)

Barend Jacobus Du Toit (Ben Du Toit), a former student of Van Huyssteen who completed his masters and doctoral studies under his supervision and was co-author of *Geloof en Skrifgesag* (1982) [Faith and the Authority of Scripture], mentions that both Pannenberg and Karl Barth influenced Van Huyssteen during these earlier years (cf. Du Toit 1993:120). He explains:

It was the rational fabric of Pannenberg's theology that appealed to Van Huyssteen, and it was especially against the exclusivistic *ghetto* theology of Karl Barth that Van Huyssteen rebelled in his writings... (Du Toit 1993:121).

More specifically, Du Toit adds:

...what appealed to Van Huyssteen is the fact that, for Pannenberg theology could never exist purely as a positive ecclesiastical theology, isolated from other sciences (1993:133).

Returning to South Africa, Van Huyssteen was appointed lecturer at the Huguenot College, Wellington and in 1971 ordained as a pastor (minister) of the Dutch Reformed Church in Paarl (cf. Du Toit 1993:121). In the following year Van Huyssteen was appointed Professor in Systematic Theology and Head of the Department of Biblical Studies at the University of Port Elizabeth, as it was called then. Du Toit writes:

During this time he encountered the formidable strides made by philosophy of science in attaining criteria for the basis of credible scientific statements, breaking with the positivism of the *Wiener Kreis*, and probing new grounds in epistemology (1993:121-122).

In a paper read at the University of Pretoria in 1972 “God en Werklikheid” [God and Reality], published in NGTT 14, Van Huyssteen made it clear that theology needed to participate in the broader intellectual discussions of its time. He observed that from the beginning of the Christian faith, the church has had the obligation to go into the world and render God intelligible (cf. 1972:132). However, modern science has negated the need for God and proclaimed a secular *reality* (cf. 1972:133). Unfortunately, the Christian response to this challenge has been less than satisfying. Christian believers and theologians have either dismissed clear scientific fact, sacrificed the essence of Christian belief to modern science or retreated to privatised forms of piety (cf. 1972:134). Van Huyssteen finds these approaches to be inadequate and suggests an analysis of how theological theories and truth-claims are formed in order to develop a credible and appropriate methodology for theology. Van Huyssteen therefore engages philosophers of science and identifies the key to this methodological revision, namely *epistemology*.

In an article entitled “Bybelkunde, Teologie en die Bybel” (1975) [Biblical studies, Theology and the Bible] Van Huyssteen recognises that theology needs to break away from uncritical dogmatic methods that advance *revelation* in justifying theological theories (cf. 1975:149). Accordingly, his work develops along two lines. On the one hand, he develops an appropriate methodology for theology which develops into a model of rationality, namely *critical realism*, most clearly discussed in *Teologie as Kritiese Geloofsverantwoording: Teorievorming in die Sistematiese Teologie* (1986) [Theology and the Justification of Faith: Constructing Theories in Systematic Theology (1989)]. On the other hand, Van Huyssteen addresses *biblical authority* as an epistemological problem in *The Realism of the Text: A Perspective on Biblical Authority* (1987).

In the article “Teologie en Metode” (1978) [Theology and Method] Van Huyssteen observes that the South African theologians J. A. Heyns and W.D. Jonker suggested that the privatisation and isolation of theology is not desirable (cf. Van Huyssteen 1978a:391). Like Van Huyssteen, they argued that theology needs to engage in conversation with contemporary thinking and to reflect on the truth of the Christian confessions (cf. 1978a:392). Responding to this article, Adrio König suggests that Heyns emphasises theology’s uniqueness to such an extent that he does not escape this isolation himself (cf. König 1978:400). Van Huyssteen acknowledges the force of König’s comment, but explains that even if this is true, both Heyns and Jonker stressed the temporal and human character of theology and thereby attempted to depart from uncritical, dogmatic theology (cf. Van Huyssteen 1978b:409).

Moreover, in “Systematic Theology and the Philosophy of Science: the Need for Methodological and Theoretical Clarity in Theology” (1981) Van Huyssteen suggests that the lack of conversation with other academic disciplines also leads to parochial patriotism, when

...confessional doctrines and a given theological tradition become the exclusive context of justification for theological propositions... (1981a:16).

Van Huyssteen comments:

By the very nature of its object systematic theology is essentially ecumenical (1981a:16).

Furthermore, Van Huyssteen explains in “Sistematiese Teologie en Wetenskapsteorie: Die Vraag na Metodologies-Teoretiese Helderheid in die Teologie” (1981) [Systematic Theology and the Philosophy of Science: The Need for Methodological and Theoretical Clarity in Theology] that when theology is understood as mainly a church activity, theologians seem to be unaware of the problems concerning rationality in philosophy of science (cf. Van Huyssteen 1981b:64). In “Thomas S. Kuhn en die Vraag na die Herkoms

van ons Teologiese Denkm Modelle” (1983) [Thomas S. Kuhn and the Origin of Theological Thought Models] Van Huyssteen finds the absence of such discussions ironical, because it is these philosophers of science who construct and identify the models of rationality in which theology also functions (cf. 1983a:296). Theology would be much enriched if theologians engaged philosophers of science on the problem of theory formation.

The need for such discussions in South Africa became apparent with the publication of a report of the Reformed Church in the Netherlands on the nature and authority of biblical documents entitled *God met Ons* (1981) [God with Us]. In *Geloof en Skrifgesag* (1982) [Faith and the Authority of Scripture] Van Huyssteen, along with B. Du Toit, entered the public discussion on this controversial report. Du Toit explains that in this publication he and Van Huyssteen attempted to:

...bring an understanding for the nature of the Bible as a collection of written documents, the nature of historiography, as well as the accompanying concept of the so called relational nature of truth. The reaction from the side of the official church...has in general been that of outrage and severe suspicion (1993:161).

In a paper entitled “Belydenis as Denkmodel - ’n Teologie tussen Insig en Ervaring” (1985) [Confession as Thought Model: A Theology between Understanding and Experience] delivered in 1984, Van Huyssteen explains, amongst other things, the impact of Thomas S. Kuhn’s theory of paradigm shifts on the nature of the discussion in philosophy of science and its implications for theologians concerning theological methodology. What is notable about this publication specifically is the response from fellow South African theologian, John W. de Gruchy. De Gruchy writes:

...the tension in which we find ourselves as we seek to relate Christian faith and contemporary thought is not one of academic interest alone – it is a matter of life and death for both the church and society. Theological discourse in South Africa cannot afford the luxury of withdrawal from the pain, struggles, and hopes which are part of our daily existence. The question of the nature and method of theology is, thus, profoundly existential. It has to do with our lives, the lives of our families

and community, and the future which is presently being shaped in our midst (1985:28).

This confirms that Van Huyssteen's work was not only contextually inspired, but also contextually directed. This public awareness is a trademark that can be found throughout Van Huyssteen's academic project.⁴

Van Huyssteen consequently immerses himself in conversation with philosophers of science through a series of articles, culminating in his book *Teologie as Kritiese Geloofsverantwoording: Teorievorming in die Sistematiese Teologie* (1986) [Theology and the Justification of Faith: Constructing Theories in Systematic Theology (1989)], in which he develops a model of rationality that he calls a *weak form of critical realism*.⁵ This model of rationality provides three criteria by which theological statements/truth-claims can be evaluated and determined rationally. They must, according to Van Huyssteen (1986:172):

1. depict reality;
2. have critical and problem-solving abilities; and
3. be constructive and progressive.

What makes this model attractive to theologians is that it does not require theologians to deny their commitments. Already in "Die Sistematiese Teoloog en Persoonlike Geloofsbetrokkenheid" (1981) [The Systematic Theologian and Personal Faith Commitments] Van Huyssteen expresses his differences with William W. Bartley and criticises his pancritical rationalism as a commitment to non-commitment. Van Huyssteen suggests that the theologian's commitment need not be a methodological problem (cf. Van Huyssteen 1981c:301). It is only when theologians deny these commitments and the theorising that precedes it, that it becomes a problem. In

⁴ In an article "Theology as a Critical Account of Personal Faith?" (1988), D. Smit makes an important comment: "In terms of Tracy's distinction Van Huyssteen is most certainly focusing on a very important kind of theology, with a very important public as interlocutor, and a very important problem-consciousness, but it is most certainly not the only problem-consciousness, the only public, the only loyalty, and the only methodology for systematic theology, and, as perhaps most theologians are concerned, not the primary one either."

⁵ Critical realism is a theological parallel to scientific realism (Shults 2006:3).

“Rasionaliteit en Kreatiwiteit: Ontwerp vir ’n Kritiese, Konstruktiewe Teologie” (1983) [Rationality and Creativity: A Design for a Critical, Constructive Theology] Van Huyssteen states that theologians are authentic when they are critical, observant, intelligent, rational and responsible, as well as conscious of and honest about their commitments and beliefs when dealing with their work (cf. Van Huyssteen 1983b:187). It is not the commitment and beliefs of theologians that create problems in their methodology, but rather the way in which these commitments play a part in theory formation (cf. 1983b:209). Van Huyssteen began his reflections on this issue in “Hoe Waar is Ons Teologiese Uitsprake?” (1973) [How True are Our Theological Statements?] and offered the following example: The statement *I believe in God the Father, the Creator of heaven and earth* already assumes that God exists and that God created (Van Huyssteen 1973:12).

However, stating what one believes does not make it true or false, rational or irrational. This is not necessarily a methodological problem, but the way in which this commitment or belief functions in theory formation will render the theory rational or not. As such, Van Huyssteen suggests that theologians engage with philosophers of science and discuss the problems regarding their evaluation of the rationality of theological statements.

Furthermore, reflecting on the rationality of theological method inevitably leads to questions on the use of Scripture in theological knowledge claims. In a review⁶ entitled “Fundamentalism and the Quest for Biblical Authority” (1983) Van Huyssteen writes:

...we do not derive from the Bible information that in itself authorizes or gives the foundation for such and such a doctrinal or ethical position. Rather, our doctrinal and ethical positions have as their point of origin a total vision, a conception of what Christian life, action and society should be like (1983c:70).

⁶ This is a review of both *The Roots of Fundamentalism* by Ernest R. Sandeen and *The Scope and Authority of the Bible* by James Barr.

He explains in “Bybelkunde op Universiteit as Vormende Wetenskap” (1984) [Biblical studies as a Formative Science in the University] that the reason for this is that all models of thought (including theological models of thought), even if derived from Scripture, are constructed by way of traditions and historically determined assumptions (cf. Van Huyssteen 1984:18). In “Understanding Religious Texts: The role of models in Biblical Interpretation” (1987) Van Huyssteen comments:

In reality models of rationality very much determine and structure our hermeneutical choices, as much as modes of interpretation and the commitments they reveal directly illuminate and regulate the epistemological basis of all our theological thought processes (1987a:10).

Taking this into account, the end result does not need to be relativism. One does not simply choose the model of rationality one prefers. The model one uses needs to form a credible basis for interpretation and needs to be better substantiated than any of the alternatives (cf. Van Huyssteen 1987a:14).

In the same year Van Huyssteen followed up on his previous publications *Geloof en Skrifgesag* (1982) [Faith and the Authority of Scripture] and *Teologie as Kritiese Geloofsverantwoording* (1986) [Theology and the Justification of Faith (1989)] with his first English publication, entitled *The Realism of the Text: A Perspective on Biblical Authority* (1987). Here Van Huyssteen explains and clarifies statements made in previous publications to a wider audience. Henceforth, Van Huyssteen considers the issue concerning the nature and authority of the biblical text as fully addressed and he would not again visit this issue so extensively. This is also Van Huyssteen’s last South African published book. Furthermore, from this time onwards Van Huyssteen focuses on the development of an appropriate and credible model of rationality which will underscore the necessity of theology’s participation in the broader academic conversation.

In his article entitled “Paradigms and Progress: Inference to the Best Explanation? The Shaping of Rationality in Theology” (1988) in a compilation of articles entitled

Paradigms and Progress in Theology (1988) Van Huyssteen states that rationality is not an end in itself, but a means to an end (cf. 1988b:88). He explains:

...in the end rationality...serves the larger goal of explanation and therefore also of explanatory progress (1988b:89).⁷

He concludes:

In the end rationality in theology therefore consists of accepting those models or research traditions that are the most effective problem solvers (1988b:89).⁸

This particular article is significant, not only because it signals the end of an exclusive focus on theological methodology and the beginning of a focus on rationality and interdisciplinarity, but also because the subtitle of this article becomes, in part, the title of Van Huyssteen's *magnum opus*.

On the 1st of January 1992 Van Huyssteen was appointed the first *James I. McCord Professor of Theology and Science* at the Princeton Theological Seminary, New Jersey, USA. This is a significant move and validates Van Huyssteen's academic work to date. Furthermore, the move to the USA brings a slight but significant, shift in the focus and goal of Van Huyssteen's academic project.

In developing an adequate model of rationality and methodology for theology, Van Huyssteen uncovers the interdisciplinarity of theological reflection. As such, his project loses its apologetic tone and proclaims what Van Huyssteen would come to call the public nature of theology. His inaugural address at the Princeton Theological Seminary

⁷ McMullin (1988:23) explains: "When one speaks of the *rationality* of science, one is usually referring in a global way to the methods employed by scientists as well as the values they try to maximize in the course of applying these methods. It is in this sense instrumental; it is the means to whatever ends natural science as an activity aims at. It is not autonomous, not an end in itself."

⁸ Polkinghorne (1998a:19) writes: "In both experimental science (such as subatomic physics or biochemistry) or observational science (such as cosmology or animal behaviour), scientists are seeking the best explanation they can find of a great swathe of varied, and often puzzling data." He adds: "Other forms of human inquiry - and I would include theology on this list - are also seeking the best explanation of the experience they survey."

signals this shift in the title “Theology and Science: The Quest for a New Apologetics” (published in 1993). Exploring this shift and coming to terms with his new context, Van Huyssteen publishes a series of articles culminating in a compilation published as *Essays in Postfoundationalist Theology* (1997). In these articles Van Huyssteen acknowledges that his work forms part of what is now called the postmodern movement in philosophy, theology and science. However, he distinguishes himself within this postmodern movement as a postfoundationalist and ultimately detaches himself from what he calls foundationalism.

In a review of *Theology in the Age of Scientific Reasoning* (1990) by Nancey Murphy, Van Huyssteen suggests that postfoundationalist thought can make sense of words such as God:

...without a neo-Wittgensteinian appeal to groundless believing or to fideist accounts of theistic belief (1992b:234).

In “Should We Be Trying So Hard To Be Postmodern? A Response to Drees, Haught, and Yeager” (1997) Van Huyssteen states that postmodern thought (nonfoundationalist thought), in turn, influencing both theology and science, challenges the accepted meanings of words such as *religious experience, revelation, tradition, God* and suggests that these words are contextually bound (cf. Van Huyssteen 1997a:582).

Analysing modern and postmodern thought, Van Huyssteen identifies trends of foundationalism and nonfoundationalism respectively. In “The Shaping of Rationality in Science and Religion” (1996) he notices that theology and the sciences share an epistemological pattern, where foundationalist notions are found in empirical science, biblical literalism and religious fideism (cf. 1996:106).

Furthermore, in “Van Huyssteen Response to Robbins: Does the Postfoundationalist Have to be a Pragmatist?” (1992) Van Huyssteen states:

Epistemologically speaking, there is nothing unique about religious beliefs. Like other beliefs they can be assessed to determine whether they are useful, useless, meaningful, true, or false (1992a:455).

What needs to be discussed is how to evaluate these beliefs and determine if they are true, false, rational or irrational.

In 1998 Van Huyssteen delivered the *John Albert Lectures* at the University of Victoria in British Columbia, Canada published as *Duet or Duel? Theology and Science in a Postmodern World* (1998) [also available in an Indonesian translation (2000)]. This publication showcases the first step Van Huyssteen took in initiating a conversation between scientists and theologians. He explains that contemporary cosmology, like theology, by the very nature of its subject is an interdisciplinary project. Moreover, contemporary cosmologists argue for understanding the universe as a single object, which Van Huyssteen uses as an argument for not dividing our understanding of reality into natural and supernatural dimensions. Van Huyssteen also begins to probe the contributions of evolutionary epistemologists on the issue of human rationality and a comprehensive epistemology, which will become very important in his Gifford Lectures (2004).

In the same year Van Huyssteen co-edited *Rethinking Theology and Science: Six Models for the Current Dialogue* (1998) with Niels Henrik Gregersen. This book offers six approaches to interdisciplinary research in theology and science, ranging from incompatibility to total coherence. Van Huyssteen's contribution focuses on the rational agent which will become the cornerstone of his postfoundationalist understanding of human rationality and facilitation of interdisciplinary research.

The Shaping of Rationality: Toward Interdisciplinarity in Theology and Science (1999) sees Van Huyssteen explaining the nuances of his intricate postfoundationalist understanding of human rationality. Kenneth A. Reynhout, then a PhD student in Philosophy and Theology at Princeton Theological Seminary and author of the introduction to Van Huyssteen's Festschrift *The Evolution of Rationality:*

Interdisciplinary essays in Honour of J. Wentzel van Huyssteen (2006) edited by F. LeRon Shults, a former doctoral student⁹ of Van Huyssteen's, writes in the introduction:

Throughout, the critical realist model of rationality developed in the previous phase is neither abandoned nor significantly altered. Rather, it is presupposed as his motivation shifts from justifying theological rationality per se to demonstrating how a postfoundationalist epistemology can negotiate the complex rational demands of the theology and science dialogue (Shults 2006:7-8).

In this publication Van Huyssteen develops an extensive argument that rationality is first and foremost a quality of an individual's decisions (cf. Shults 2006:9). This implies that rationality is not primarily about what one believes or one's proposition, but rather about how one comes to these beliefs and propositions. Reynhout writes:

By focusing on how rational agents believe, evaluate, and act in particular situations Van Huyssteen is attempting to describe a postfoundationalist rationality that is thoroughly contextual and yet still strives for intersubjective discourse by appealing to the common resources of rationality shared across disciplines (Shults 2006:10).

Except for the idea of the rational agent, Van Huyssteen develops the most significant contribution towards interdisciplinary research in theology in science that he has made, namely, the shared resources of rationality. Already in "Beyond Dogmatism: Rationality in Theology and Science" (1988) Van Huyssteen recognised the shared resources of rationality and identified intelligibility as an epistemic goal in both theology and science. He explains:

⁹ The title of Shults's doctoral dissertation received under the supervision of Van Huyssteen at Princeton Theological Seminary: *The Task of Theology: A Post-foundationalist Appropriation of Wolfhart Pannenberg* (Sep. 1998). It was published as *The Postfoundationalist Task of Theology. Wolfhart Pannenberg and the New Theological Rationality* (1999). In this publication Shults places Van Huyssteen's postfoundationalism in a broader group of theologians in search for an epistemological and methodological *middle way* (Shults 1999:39-41). These theologians are Philip Clayton, Andy. F. Sanders and Mikael Stenmark. Shults also names Nicholas Rescher, Susan Haack and Calvin Schrag as philosophers in search of an epistemological and methodological *middle way*.

In this sense rationality would imply reliance on argument and explanation and in accepting those models which appear to be the most effective problem solvers in terms of certain criteria of rationality. These criteria could be seen as rules specifying what would count as reasons for believing something. In this sense they function as epistemic values that directly tie in with the goals of our theorizing. Rationality in theology and science is therefore directly related to these goals, and if the goals change or more important ways of realizing these goals are found, rationality itself will change (1988a:894).

It is these shared resources of rationality that strengthen and vindicate Van Huyssteen's argument for the necessity of interdisciplinary research, which he had already pleaded for numerous times.

He also discusses his understanding of the working of tradition and experience in rationality which he has examined previously. In "Tradition and the Task of Theology" (1998) Van Huyssteen states:

Because a progressive or successful research tradition leads one, through its component theories, to what a community may regard as an adequate solution of a broad range of conceptual problems, the tradition itself could claim a very specific form of theoretical and experiential adequacy. The degree of this adequacy...tells us nothing about the truth or falsity of the tradition itself, but rather points to pragmatic criteria for choosing – through responsible judgement – between frameworks of thought... (1998c:219).

After this another shift occurs in Van Huyssteen's academic project. After explaining his postfoundationalist understanding of rationality and interdisciplinary research, he puts his approach to the test in his Gifford Lectures (2004), published as *Alone in the World? Human Uniqueness in Science and Theology* (2006) [also available in a German edition (2006) and Swedish translation (2008)]. In this publication Van Huyssteen facilitates

an interdisciplinary reflection between evolutionary epistemologists, paleoanthropologists and theologians, which addresses three issues simultaneously.

The first issue that Van Huyssteen addresses is the abstract nature of his postfoundationalist approach. By drawing on evolutionary epistemology, he grounds his postfoundationalist approach by showing its rootedness in the biological evolution of the human mind and rationality. He comments on this theory again in “Ethics and Christology - Rediscovering Jesus in Evolutionary History” (2008) by stating:

Evolutionary epistemology highlights both the deeply embodied, as well as the fallibilist nature of all human knowledge, and explains that there are advances and growth in human knowledge, but that this *progress* is not necessarily an increase in the accuracy of depiction, or an increase in the certainty of what we know (2008b:494).

The second issue Van Huyssteen addresses is the theories of the *imago Dei* in theology and human uniqueness in science. Van Huyssteen explains that paleoanthropologists argue it is the rationality of *Homo sapiens* that makes this species specifically unique and human. This rationality, however, should be understood as embodied, because it is rooted in the biological evolution of *Homo sapiens*. On the other hand, Van Huyssteen argues that the theory of the *imago Dei* in theology is also used to distinguish humans from other beings. Bringing these perspectives together, Van Huyssteen suggests that theories on the *imago Dei* in theology should take embodiment seriously, if such theories wish to combat speculative tendencies.

The third issue Van Huyssteen addresses is the indispensable interdisciplinarity of theology. Again drawing on the insights of paleoanthropologists, Van Huyssteen shows that the embodied mind which renders *Homo sapiens* so unique has its origins in cognitive fluidity. Van Huyssteen refers to Steven Mithen, a professor of Early Prehistory and Head of the School of Human and Environmental Sciences at the University of Reading, England. Mithen explains:

Cognitive fluidity refers to the combination of knowledge and way of thinking from different mental modules, which enables the use of metaphor and produces creative imagination. It provides the basis for science, religion and art (2005:4).

Once again the shared resources of rationality are illuminated. However, in his contribution to *The Significance of Complexity: Approaching a Complex world Through Science, Theology and the Humanities* (2004), edited by Kees van Kooten Niekerk and Hans Buhl, entitled “Evolution and Human Uniqueness: A Theological Perspective on the Emergence of Human Complexity” (2004) Van Huyssteen again shows that Mithen still takes science to be the most important feature of the cognitive fluid mind (cf. Van Huyssteen 2004:209). Van Huyssteen does not disagree, but argues that whilst scientific reflection might be the clearest available example of human rationality, it is not the only rational version of human rationality.

Taking cognitive evolution into account, Van Huyssteen argues that theologians should not only be welcomed to interdisciplinary conversations, but that theologians are indispensable to such conversations. In *The Encyclopedia of Science and Religion* (2003) Van Huyssteen, as editor-in-chief, writes:

The complex but enduring relationship between the sciences and diverse world religions has now transformed itself into what some are calling a new scholarly field of *science and religion*. This multifaceted conversation has developed into a sustained and dynamic discourse with direct implications for contemporary culture. This discourse affects all religions, in both their intellectual and social dimensions. It also analyzes, supports, and constrains the global impact of the sciences of our times (2003: vii).

The interdisciplinarity of theology and its indispensability in interdisciplinary conversation leads Van Huyssteen to develop and explain his understanding of public theology. In “Interdisciplinary Theology as Public Theology” (2011) Van Huyssteen defines public theology as:

...a theology that can and should claim the right to a democratic presence in the interdisciplinary, political and cross-contextual conversation that constitutes our public discourse, including the discourse in the secular academy (2011b:95).

This also implies that the church is understood as the natural context for theology, but not the only context. The reason for this shift to a public theology is to be found in the shared resources of human rationality. Van Huyssteen argues that theology and the sciences use:

...the same kinds of interpretative and evaluative procedures to understand nature, humans, and the social historical, and religious aspects of our lives. And in this fact is found the deepest epistemological and hermeneutical reasons why theology by its very nature should be seen as public theology (2011b:96).

His most recent publication is a compilation of articles entitled *In Search of Self: Interdisciplinary Perspectives on Personhood* (2011), co-edited by Van Huyssteen and Erik P. Wiebe. This is not only a collection of articles on interdisciplinary perspectives on the idea of the self, but a further development of Van Huyssteen's anthropological theme.¹⁰ However, this is not a theme chosen at random, but a logical progression if one takes the rational agent to be the cornerstone of Van Huyssteen's postfoundationalist understanding of human rationality. This publication also showcases the growing importance of interdisciplinary research and the indispensable contribution to be made by theologians.

Van Huyssteen's most recent article "Should Theology take Evolutionary Ethics Seriously?" (2011), also showcases his continued anthropological interest. Here, Van Huyssteen explores the evolutionary development of human morality and ethics. He explains:

¹⁰ Fraser Watts (2010:194) comments: "...there is currently much less work being undertaken in theological anthropology than in...Trinitarian theology. Also, there is a widespread feeling that theological anthropology has got into a rut, and that fresh approaches are needed to revive it. Making it more explicitly interdisciplinary seems the best way forward." Referring to *Alone in the World?* Watts (2010:205 endnote 12) adds: "Wentzel van Huyssteen has made a significant contribution to interdisciplinary theological anthropology."

The tension between evolutionary theory and Christian faith is often viewed as the most recent, and the most long-standing example of defensive posturing by people of faith in the face of advancing scientific understanding, the kind of scientific understanding that seems to have systematically threatened belief in God by the sheer firepower of naturalistic explanation...I do believe, however, that a constructive dialogue with evolutionary theory should not be about whether or not supernatural accounts of the origin of creation can be defended, but should rather focus on the fundamental question: what *kind* of creation do we have (2011c:454)?

Daniël P. Veldsman, former student, squash partner and current friend of Van Huyssteen, and South Africa's leading expert on Van Huyssteen, describes Van Huyssteen's academic project as follows:

I would name the following as beacons along his 'liberating' story of rationality, namely his commitment to experiential and epistemological adequacy; a commitment which led to the fall from epistemological innocence and the quest for intelligibility, culminating in the liberation from epistemic narcissism and epistemological tribalism (2008:229).

Van Huyssteen pioneered and inspired an exciting and ever-renewing postfoundationalist reasoning strategy which will, without a doubt, assist and facilitate the pursuit of intelligibility in theology, interdisciplinarity and our humanity. One has come to expect nothing less from this contemporary philosophical theologian. What can one expect from the road ahead? Van Huyssteen would probably answer: Whatever the human imagination allows!

Descriptive outline

In order to illuminate, clarify and distil Van Huyssteen's postfoundationalist approach to, and facilitation of, interdisciplinary research in theology and science, this dissertation is presented in three main parts. Each part represents a disentangled thread of the larger argument. The reason for such a presentation is the attempt to clarify the different aspects woven together to form Van Huyssteen's argument on interdisciplinary reflection. This is not to imply that each part stands on its own, but rather an attempt at illuminating the coherence of each aspect within the larger argument. This dissertation is therefore presented in three parts, namely:

1. From Methodology to Rationality;
2. Postfoundationalist Theology;
3. Postfoundationalist Facilitation of Interdisciplinary Conversation and Reflection.

Part One deals with Van Huyssteen's work on rationality and methodology. It discusses his engagement with modernists (Chapter One), his response to postmodernists (Chapter Two) and his postfoundationalist alternative (Chapter Three).

Part Two takes cognisance of the theological implications of a postfoundationalist notion of rationality and explains Van Huyssteen's arguments for religious experience as the focus of theological reflection (Chapter Four). Furthermore, the chapter discusses the use of Scripture in theological reflection and its intention.

Part Three analyses and distils a postfoundationalist interdisciplinary conversation and facilitation of interdisciplinary research. Here a distinction is made between interdisciplinary conversation and interdisciplinary reflection, where the former constitutes the interaction between scholars (in this case theologians and scientists) in the public arena (Chapter Five), while the latter refers to generating knowledge using a multitude of diverse disciplines (Chapter Six).

In more detail, the six chapters will deal with the following arguments.

Chapter One follows Van Huyssteen's engagement with modern thought and his search for an appropriate theological methodology. It becomes clear to Van Huyssteen that the debate between theologians and scientists will not be constructive if it focuses on the content of their respective commitments alone. The only way to develop this debate constructively and develop a credible theological methodology will be to form a clear understanding of the nature of rationality itself. Therefore, Van Huyssteen argues for the indispensability of philosophy of science.

The main concern here is whether a theologian's faith commitment should be regarded as a methodological problem and, if not, how it should function in theological reflection.¹¹ Van Huyssteen suggests that, after Thomas S. Kuhn, this question should be asked of the theologian as well as the scientist. This said, Van Huyssteen argues that it is not the commitment (be it faith or scientific orientated) that is problematic, but rather the way in which it functions.

Chapter Two shows Van Huyssteen analysing postmodernist thought and defining it as a relentless critique of modernists' assumptions. As such, postmodernists are understood to be part of the modernist project. However, Van Huyssteen distinguishes between constructive and deconstructive postmodernist attitudes and attempts to utilise constructive postmodernist thought in order to develop what he calls a postfoundationalist approach. He does this by showing the relationship between the modernist notion of rationality and foundationalism, as well as the relationship between the postmodernist notion of rationality and nonfoundationalism. This being the case, Van Huyssteen argues that it is possible to split the difference between foundationalists' and nonfoundationalists' notions of rationality by adopting the search for truth of the foundationalists and the appeal to contextuality of the nonfoundationalists. This leads to the development of a postfoundationalist notion of rationality.

¹¹ This question becomes the driving force of Van Huyssteen's further work and can still be seen in his recent work "Post-Foundationalism and Human Uniqueness: A Reply to Responses" (2011), where he, once again, explains (2011a:78-79): "...because of the multidimensional nature of human rationality, we should as theologians be able to enter the pluralist, multidisciplinary conversation with our full personal convictions intact and at the same time be empowered to step beyond the limitations of our contexts and traditions in critical self-reflection."

Chapter Three deals with Van Huyssteen's argument and understanding of a postfoundational notion of rationality.¹² By employing different epistemic values that subsequently fuse epistemology and hermeneutics, a postfoundational notion of rationality becomes conducive to interdisciplinary research. Not only does this free rationality from the false dichotomy of foundationalism and nonfoundationalism, but allows for the transversality – a term Van Huyssteen borrows from mathematics – needed to facilitate interdisciplinary conversation and reflection. Furthermore, instead of a focus on rational beliefs, a postfoundationalist approach is utilised by rational agents who automatically incorporate the necessary contextuality in the pursuit of intelligibility. This also allows Van Huyssteen to explore and anchor a postfoundationalist approach in the evolutionary development of the human mind. Relying on the work and reflective insights of evolutionary epistemologists and paleoanthropologists, Van Huyssteen argues that a postfoundational notion of rationality reflects the biological and cultural evolution of human rationality. These scientists also reveal the intrinsic value and naturalness of religious experience, which strengthens Van Huyssteen's argument for the necessity of interdisciplinary research in theology and science.

Chapter Four discusses religious experience as the focus of theological reflection. Van Huyssteen argues that, because all experience is interpreted experience, a religious experience can only be identified as such if the view of life the person holds allows for such an interpretation. This means that the focus of theological reflection is on views of life that generate religious experience. As such, the theologian cannot but engage in interdisciplinary conversation and reflection, because views of life or worldviews are formed by a multitude of commitments, beliefs and convictions engaging different and

¹² In his earlier work on methodology Van Huyssteen argued for a *critical realist* model for theological methodology. In "Wentzel van Huyssteen: Telling the Story of Religious Awareness with Inter-Disciplinary Integrity from an Evolutionary Epistemological Perspective" (2008) Daniël Veldsman explains (2008:223): "The CR (Critical Realist) model was his answer to the basic question, namely on how do we construct theories in theology." However, this critical realist model is developed into a more comprehensive epistemological model in his later work, namely a postfoundationalist notion of rationality. Veldsman writes (2008:225): "The quest for adequacy that came from Wentzel's *weak* CR position, now broadens into the realm of interdisciplinarity, specifically of theology and science, and can best be captured in the question: *Why rationality?*" It is therefore important to keep in mind that these two terms are not mutually exclusive. In other words, a postfoundationalist approach assumes a critical realist stance in theology. However, when referring to theological methodology the term critical realist may be used and when referring to a model of rationality the term postfoundationalist is used.

diverse disciplines. This leads to Van Huyssteen's understanding of public theology, tradition and the use of Scripture in theological reflection.

Chapter Five brings the theologians and scientists together for an interdisciplinary conversation. Here Van Huyssteen unmaskes epistemic shortcuts and uncovers reductionist approaches by theologians and scientists. Most intriguingly, Van Huyssteen displays the interdisciplinary nature of contemporary cosmology and the fruitful interaction to be had between theologians and cosmologists. However, one needs to be cognisant of the natural boundaries of each discipline and take care not to overstep these boundaries.

Chapter Six distils Van Huyssteen's postfoundationalist approach to interdisciplinary reflection into four aspects, using his Gifford Lectures (*Alone in the World?*) as example. It also deals with critiques of this approach and explains the ambiguity of some of the moves Van Huyssteen makes. The purpose of this chapter is to assist the theologian in developing a postfoundationalist interdisciplinary research project using Van Huyssteen's approach as a base.

This descriptive outline is intended to give the big picture of this dissertation. This is important, because there are natural links in Van Huyssteen's work, but in the rest of this study his work is disentangled in an attempt to illuminate, clarify and distil each distinct aspect. We now turn to that task.

Part One - From Methodology to Rationality

Chapter One - Foundationalist Approaches

In *The Shaping of Rationality* (1999) Van Huyssteen explains that modernism emerged as a cultural movement in the arts, literature and philosophy during the 19th and 20th centuries. Hopeful of liberating humanity from ignorance and irrationality, modernism responded to pre-modernism by appealing to the rationality of the autonomous subject (cf. Van Huyssteen 1999:22). Van Huyssteen identifies Descartes, Kant, Hegel and Husserl as the fathers of modernism because these philosophers were profoundly convinced that human reason can illuminate the truth (1999:23). Their projects scrutinised and marginalised religious belief and practices and ultimately resulted in the birth of secular culture (1999:23).

Modernism reached its apex in *logical positivism*. Logical positivism is defined by Van Huyssteen as:

...the epistemic and cultural primacy of mathematical physics by asserting that mathematics exemplifies the very structure of rational thought and that our sense experience can be the only basis for knowledge of the world (1999:36).

Van Huyssteen deals directly with logical positivism in his book *Teologie as Kritiese Geloofsverantwoording* (1986) [Theology and the Justification of Faith (1989)]. He discusses the influence of this scientific stance on theology as well as the theological response to this notion of rationality. He finally argues for a *critical realist* model for a theological methodology.

Van Huyssteen explains that logical positivism was the first form of systematised philosophy of science and initiated in the 1920s by the *Wiener Kreis* (1986:16). The

well-known book by Ludwig Wittgenstein¹³ *Tractatus Logico-Philosophicus* (1921) had a great influence on the *Wiener Kreis*. This publication attempted to identify the relationship between language and reality and to define the limits of science. The *Weiner Kreis*, drawing on Wittgenstein's publication, wanted to identify speculative thought and then describe it as metaphysical in order to replace it with a *true* and objective scientific worldview (cf. Van Huyssteen 1986:16). They argued that empirical data provided the only credible route towards scientific knowledge and this stance remained prominent until the 1960s. All forms of positivism use some or other claim/value as the final basis for all argumentation (cf. 1986:16). One of the most basic assumptions of logical positivists was that all sciences ultimately have the same structure. The natural sciences, being the most advanced of them, supply the criteria whereby all sciences are evaluated (cf. 1986:17). A sharp distinction is made between empirical scientific claims and metaphysical claims. While scientific claims can be true, metaphysical claims can only express feelings or emotions that have no cognitive meaning. Moreover, the goal of science is to unify all human knowledge using a scientific mode of reflection. The purpose of rationality, then, is to arrive at a fully integrated, unified science (cf. 1986:18).

Within this model of rationality, the only non-empirical data deemed rational are analytic expressions. Thus the task of the philosopher is to analyse the language of science and guide it towards becoming a unified enterprise (cf. Van Huyssteen 1986:18). The function of the philosopher included the call to use logic and reduce all empirical knowledge to concepts and claims that would refer directly to the senses (cf. 1986:17). Moreover, the philosopher is not to investigate the veiled or intrinsic reasons underlying the scientist's theory construction (cf. 1986:20). This is to say, the person constructing the theories is not important. Theories are constructed by value-free agents. Scientists, in contrast to non-scientific thinkers, are objective in all research activities and theory construction. The philosopher should therefore focus on the language used, not the user of the language.

¹³ Ludwig Josef Johann Wittgenstein was an Austrian-British philosopher. Wittgenstein modified his opinion from his *Tractatus Logico-Philosophicus* (1921) to his *Philosophical Investigations* (1953) in which he argued for his well-known theory of language games.

Thus, science was understood as a rational activity conforming to a specific methodology which strives towards objectivity (cf. Van Huyssteen 1986:19). Furthermore, scientific methodology was shaped according to *logic* and *factuality* - epistemic values that were held in high regard. This implied that all arguments not entirely devoid of inconsistencies would be deemed irrational. It was a call to objectivity. The only data used are data free of all political, social, cultural or religious values (cf. 1986:21). Political, social, religious and cultural factors could only influence the speed of scientific growth, but not the content (cf. 1986:21). Logical positivists pursued a truth free of values. Only a value-free truth could have any meaning. Ironically enough, this ideal came to idealize the values of logic and factualness (cf. 1986:22).

Theologians were not alone in responding critically to this epistemic system. Van Huyssteen shows that philosophers of science paved the way for an appropriate response by theologians. For this reason it is imperative that theologians engage with these philosophers if they wish to remain intellectually relevant¹⁴ (cf. Van Huyssteen 1986:24). Important to Van Huyssteen is that theologians should be self-critical in this conversation. Too often theologians respond to logical positivists by arguing that all knowledge claims rest on irrational assumptions (1986:25). With this move, theologians wrongly assume that theology is a reasoning strategy unaffected by logical positivism (cf. 1986:26). Sadly, these theologians remove themselves from this discussion and retreat to an affirmation of their faith commitment. In this retreat, according to Van Huyssteen, faith in the revelation of God becomes an epistemic value whereby the rationality of theology is shaped.

¹⁴ Van Huyssteen states that the theological faculties and other Christian theological departments at universities are there as a consequence of society's piety (especially in South Africa). What happens when this changes? He therefore argues that theology needs to join in the discussion conducted by philosophers of science. This should not be done as a modernising tactic, but should be understood as a sincere attempt at clarifying theological methodology and the quality of theological claims (1986:24).

The dialectical theology¹⁵ of Karl Barth¹⁶ is a splendid example of such a typical theological reaction. Van Huyssteen explains that Barth reacts strongly against logical positivism, but remains within the same framework when he makes a choice for *revelation* over and against *experience* (1986:29). Barth isolates his theology from scientific rationality, instead of engaging with it (1986:28). By isolating his theology in this way, his criticism of logical positivism loses all credibility. Therefore, active participation in the ongoing discussion on rationality is no longer possible (1986:26). Van Huyssteen cites SallieMcFague:¹⁷

Scientific positivists have their colleagues in theology, for the assumption that it is possible to go directly from observation to theory without critical use of models has its counterpart in those who assume it is possible to move from the story of Jesus to doctrine without the critical aid of metaphors and models (Van Huyssteen 1986:15).

Heinrich Scholz,¹⁸ arguing from a positivist model of rationality, proposes three minimum requirements for theology to be a genuine science (cf. Van Huyssteen 1986:30):

- irrefutability,
- coherence; and
- controllability.

Scholz suggested that if theological statements could adhere to these minimum requirements, these statements would be rational. According to Van Huyssteen, when

¹⁵ Van Huyssteen notes that Dietrich Bonhoeffer also accused Karl Barth of practising a theology of positivism because he used revelation as the basis for all argumentation in theology (1986:16).

¹⁶ Karl Barth was a Swiss Reformed theologian. "Barth...exemplifies a twentieth-century theological disillusionment with natural theology. He insisted on the prophetic distance of revelation over against the *culture Christianity* of his day. So the early Barth said no (Nein!) to natural theology and cautioned that God is *wholly other*" (Van Huyssteen 2003:211-212).

¹⁷ Sallie McFague is an American feminist Christian theologian. "Evolutionary and ecological thought also play an important role in Sallie McFague's model of the world as God's body..."(Van Huyssteen 2003:747).

¹⁸ Heinrich Scholz studied theology at the University of Berlin and wrote a thesis on the philosophy of religion and systematic theology.

Barth, in his *Church Dogmatics* (1932), plainly rejected these three minimum requirements proposed by Scholz, Barth revealed his theology to be reactive and therefore dependent on that to which it reacts.¹⁹ Van Huyssteen notes that J.A. Heyns²⁰ also critiques Barth's theology of isolating itself within a reduced understanding of revelation (cf. 1986:33).

Showing that a retreat to commitment will not serve theologians in their pursuit of a credible theological methodology, Van Huyssteen engages philosophers of science and finds that they too critique logical positivists. The first philosopher of science Van Huyssteen engages in *Teologie as Kritiese Geloofsverantwoording* (1986)²¹ [Theology and the Justification of Faith (1989)] is Karl Popper.²²

According to Van Huyssteen, Karl Popper deliberately moved away from a positivist model of rationality (1986:36). It is specifically Popper's notion of the theory-ladenness of observation that intrigued Van Huyssteen (cf. Du Toit 1993:143). Furthermore, Van Huyssteen remarks that Popper made a sharp distinction between *dogmatic* and *critical* thinking and in contrast to the empirical emphasis of logical positivists, Popper argued that it is by eliminating the flaws within theories that knowledge is improved – a process Popper called falsification (cf. Van Huyssteen 1986:38). As such, Popper employed *falsification* in his argument against the accumulation of scientific knowledge by means of verification and inductive reasoning. Moreover, he pleaded for a distinction between the origin and the truth of knowledge, because it is not only empirical knowledge that illuminates truth. Popper argued that objective knowledge should be understood as knowledge that has survived critical interrogation (cf. Van Huyssteen 1986:39). Popper

¹⁹ This rejection by Barth confirms his theology to be a dogmatism of his own personal faith commitment. Moreover, forcing this faith commitment as the only genuine point of departure for theological reflection makes this a positivist stance (cf. Van Huyssteen 1986:31).

²⁰ According to Van Huyssteen, Heyns should be seen as the first South African systematic theologian to engage with the philosophy of science directly and specifically. Heyns argued that the structure and domain of theological claims are determined by the object, as well as the historical and tentative nature of theology. Moreover, Heyns argued that theology could not be practised in isolation from the sciences (cf. Van Huyssteen 1986:32).

²¹ Du Toit also discusses this publication by Van Huyssteen in his doctoral dissertation *Text and Experience: A Comparative Study of American Religious Empiricism and Critical Realism* (1993). This dissertation will also make use of Du Toit's interpretation of *Theology and the Justification of Faith* (1989).

²² Karl Popper is best known as a philosopher of science. "Popper's philosophy of science is...geared to making conjectures and attempting to refute them, rather than trying to confirm them" (Van Huyssteen 2003:686).

explained that a theory is not objective because it claims to have used objective data. A theory is objective when it has survived critical interrogation. Furthermore, Popper argues that theories and hypotheses should be understood as suggestions at best. This implies that there are no final foundations for so-called *true knowledge* (cf. Van Huyssteen 1986:39). This is a major shift away from positivism.

Van Huyssteen writes that Popper therefore opted for a *critical* instead of a *dogmatic* approach. The former invites free discussion on the weak and strong points of a theory or hypothesis (1986:40). A dogmatic approach is caught within an epistemic system that needs to be defended and does not allow for an open-ended discussion. Furthermore, Popper stated that objective or neutral observations are not completely possible. All observations are interpretations of the facts in light of other theories. Therefore, experience (empirical data) does not form the criterion for justification. Rather, it refers to the method used for evaluating or testing the theory (cf. 41). Van Huyssteen (1986:43) cites Popper:

What we should do...is to give up the idea of ultimate sources of knowledge, and admit that all knowledge is human: that it is mixed with our errors, our prejudices, our dreams, our hopes; that all we can do is to grope for truth even if it be beyond our reach.

Van Huyssteen explains that falsification become an epistemic value for Popper and functioned as a tool with which to demarcate scientific and non-scientific knowledge (cf. Van Huyssteen 1986:44). He also moved beyond logical positivists' understanding of *objectivity* and opted for *intersubjective agreement* instead. Van Huyssteen recognises that this implied that objectivity is a social event, which in turn shows the importance of worldviews in the forming of theories (cf. 1986:45). As such, Van Huyssteen remarks that we choose the best theories at our disposal in our search for truth. However, it is important to note that these theories should not be understood as the truth, because they are tentative (cf. 1986:43). They are tools to be used in search of the truth (cf. 1986:45).

As such, Van Huyssteen explains, Popper defined critical rationalism as a critical process of free and constructive rationality in which strong theories survive and weak theories perish (cf. Van Huyssteen 1986:44). Van Huyssteen notes that falsification is used as a demarcating tool; however, it does not follow that non-scientific assertions are meaningless. Popper illustrates that metaphysics do play an important role in the pursuit of truth. Yet, according to Van Huyssteen, it seems Popper himself is more occupied with uncovering untruth than searching for truth. This could be explained by his choice of falsification as an epistemic value. Nevertheless, Popper argues that scientific knowledge does not move closer to the truth by accumulation,²³ but that the theories that withstand falsification lead us closer to the truth (cf. 1986:43).²⁴

Van Huyssteen comments that while critical rationalism understood objectivity differently to the way that logical positivism did, critical rationalism still separated theology from critical thought (1986:49). The importance of critical rationalism for theologians, Van Huyssteen explains, is in its break with logical positivism. However, the question of the cognitive quality of theological reflection remains unanswered (1986:48) and in reflecting on this issue Van Huyssteen engages William W. Bartley.²⁵

William Bartley takes up the issue of the quality of theological statements and also critiques Barth's retreat to a faith commitment. Van Huyssteen observes that Bartley criticises the idea of taking the revelation of God in Jesus Christ as an answer to the challenge posed by logical positivists as not appropriate (1986:52). Bartley explains that the right or privilege to choose for the irrational only comes at the cost of the right and privilege to criticize.

Van Huyssteen engages Bartley, who asks if it is possible to choose between diverse and even competing religious, moral and philosophical stances if an ultimate commitment is

²³ Popper (1963:215) writes: "...it is not the accumulation of observations which I have in mind when I speak of the growth of scientific knowledge, but the repeated overthrow of scientific theories and their replacement by better or more satisfactory ones."

²⁴ According to Du Toit, the so-called theory of verisimilitude had a very important function in Van Huyssteen's theological development (1993:146).

²⁵ Bartley studied at the London School of Economics under Sir Karl Popper.

eventually at the root of such stances (cf. Van Huyssteen 1986:50). Van Huyssteen (1986:51) cites Bartley:

The leading protestant theologians of the 20th century have embraced as fact the philosophical contention that rationality is logically limited, that every man makes some ultimate irrational commitment; and they have used this contention to excuse rationally their own irrational commitment to Christ.

The only response theologians offer to the critique on their ultimate commitment is that the scientists have ultimate commitments as well – the ‘*you too*’ argument. Van Huyssteen writes:

Bartley justly contends that the only truly serious argument still offered by modern theologians in support of a pre-theoretic commitment to a specific religious stand (and thus a conception of faith) is the *tu quoque* argument. In their retreat to an irrational commitment, theologians have typically always been able to invoke this one notable argument in defence of their intellectual integrity: the contention that any stand, statement, or scientific procedure is also and always founded on presuppositions which are not only adopted as a premise for further arguments but figure equally irrationally as an ultimate commitment (1989:38).

All rational choices have their roots in irrational commitment and therefore Christians are justified in their choice. No one may criticise the Christian for doing this, because everyone is doing it (cf. Van Huyssteen 1986:53). Van Huyssteen explains that Bartley tried to solve this problem by constructing a new model for rationality, namely *pan-critical rationalism*.

According to Van Huyssteen (1986:56-57), the criteria for this model of rationality are:

1. Test of logicity: does the theory have a logical consistency?
2. Test of sensory observation: is the theory falsifiable empirically?

3. Test of scientific theory: is theory in tune or in conflict with other scientific theories?
4. Test of the problem: which problem does the theory address and does it solve this problem successfully?

According to Van Huyssteen, Bartley was confident that theology could adhere to the fourth test. Therefore, an appropriate response would then be to commit to the rational results of arguments (1986:54).

Van Huyssteen explains that Bartley argues that participation need not be accompanied by commitment (1986:57). This is to say, a strong commitment is not necessary if one were to choose to engage in discussion. Bartley therefore proposes a healthy scepticism. This approach, like Popper's, is a commitment to non-commitment and strangely enough also guilty of a retreat to commitment,²⁶ according to Van Huyssteen (cf. 1986:59). Van Huyssteen states:

As a provisional counter to Bartley's commitment to non-commitment I would therefore suggest that systematic theologians can be committed without being methodologically compromised. Only theologians who have tied themselves to an authoritarian axiomatic theology find themselves in a highly hazardous position, since they consistently ignore the theorizing hidden behind their supposedly authoritative stand (1989:45).

Here Van Huyssteen indicates that theologians need to ask how the misuse of a faith commitment in their methodology can be located and negated (1986:59). In other words: how can systematic theologians be committed without this commitment compromising their methodology (1986:60)? Theologians need not try to get rid of this commitment, but should seek a methodology that includes it appropriately.

²⁶ Bartley (1964:151), however, does make a qualification here: "...the claim that a rationalist need not commit himself even to argument is no claim that he will not or should not have strong convictions on which he is prepared to act. We can assume or be *convinced* of the truth of something without being *committed* to its truth."

Unsatisfied with Bartley's commitment to non-commitment, but intrigued by Popper's critique of logical positivism, Van Huyssteen discusses Thomas S. Kuhn's²⁷ theory of paradigm shift. Kuhn's theory provided Van Huyssteen with an understanding of his own situation and its wider context. Du Toit writes:

In his encounter with the philosophy and science, the role of the so-called paradigm theory of Thomas S. Kuhn could probably be regarded as the most dramatic influence on Van Huyssteen's theological development. To a large extent the paradigm theory of Kuhn was responsible for a paradigm switch in Van Huyssteen's own intellectual development. As early as November 1980 he wrote with intense enthusiasm on his *discovery* of Kuhn, which in the end proved to be a pivotal event in his life, in the sense that it enabled him to understand his own experience within the South African context; his growing sense of claustrophobia within the authoritarian Calvinistic Reformed tradition, with its inability to be really self-critical in its attempts at relevant problem-solving, as well as his frustrations with regard to communicating a different (*new*) perspective or perception to his South African theological peers and fellow clergymen (1993:150-151).

Thomas S. Kuhn, as Van Huyssteen presented him, argued that all knowledge is historically shaped and developed. He agreed with Popper that this is true for scientific theories as well. Kuhn, however, disagreed with Popper's view that knowledge grows in the direction of truth (cf. Van Huyssteen 1986:65).²⁸ Kuhn illuminated this stance by constructing a theory on paradigms that showed scientific knowledge to be socially and historically determined and not necessarily moving closer to the truth.

²⁷ Thomas Samuel Kuhn was an American physicist and philosopher. His most influential book was *The Structure of Scientific Revolutions* (1962). It is after this book that the concept of a paradigm became part of the general intellectual discourse (Van Huyssteen 2003:647).

²⁸ Popper (1963:248) writes: "...we for our part are satisfied that the rationality of a theory lies in the fact that we choose it because it is better than its predecessors; because it can be put to more severe tests; because it may even have passed them, if we are fortunate; and because it may, therefore, approach nearer to the truth."

Here, Van Huyssteen explains, paradigms should be understood as models assisting in problem solving. These models/paradigms supply the theoretical, conceptual and methodological apparatus for scientific explanation (1986:68). Paradigms do change, but the succeeding paradigm is not necessarily closer to the truth than the preceding one (1986:66). According to Van Huyssteen, Kuhn distinguishes between three phases in paradigm change: the pre-paradigmatic period; normal science; and revolutionary science.

Van Huyssteen clarifies Kuhn's theory by explaining that the first phase of paradigm change, the pre-paradigmatic period, can be identified by conflicting claims (1986:67). For some or other reason the normal ways of solving problems no longer suffice and new approaches start to challenge the old. The choice for a particular paradigm is a complex activity not solely determined by rationality, but also by historical, social and psychological factors. It is a phase of continuous disagreement. The second phase, normal science, may be identified by a communal acceptance of a particular paradigm. Van Huyssteen (1986:67) cites Kuhn:

These I take to be universally recognised scientific achievements that for a time provide model problems and solutions to a community of practitioners.²⁹

Moreover, Van Huyssteen (1986:69) observes that Kuhn argues that scientific reflection is also determined by mutual values when Kuhn writes that a:

...a paradigm governs in the first instance, not a subject matter but rather a group of practitioners.

Van Huyssteen clarifies this by explaining that during this phase all puzzles are solved according to the reigning paradigm and there is no pursuit of anything new – problems or solutions.

²⁹ Van Huyssteen explains that Kuhn uses the term *paradigm* in two ways: as a system of convictions, values and techniques (sociologically) and as a puzzle-solving model (scientifically)(1986:68).

The third phase, revolutionary science, starts when unsolved problems/puzzles accumulate and trust in the current paradigm begins to wane. A new creative concept transformation takes place – what Kuhn calls a *Gestalt* switch (cf. Van Huyssteen 1986:70). New problems are identified, new criteria are accepted and a reinterpretation of existing assumptions occurs. Thus, a scientific revolution occurs when professional commitments have shifted which lead to the transformation of concepts, ideas, methods and theories. Commitments shift because the traditional approach has lost its effectiveness and new approaches have been irrevocably adopted. Van Huyssteen (1986:71) cites Kuhn:

The success of a paradigm is at the start largely a promise of success discoverable in selected and still incomplete examples.

As such, a scientific revolution does not start because of rational activity, but rather as *flashes of intuition*, as Van Huyssteen described Kuhn's theory.

This paradigm shift, however, is not a total epistemological break. Van Huyssteen notes that paradigms should be understood as problem-solving models. These paradigms are at our disposal and guide us in understanding our world and our place within it. It follows that the success of a paradigm is directly linked to its problem-solving abilities. This means that if our problems persist or a paradigm creates unnecessary problems, it is replaced by a different paradigm. Although paradigms change and evolve, this does not imply total discontinuity (cf. Van Huyssteen 1986:76).

Van Huyssteen explains that the influences that bring this change about are socially, historically, culturally, psychologically and economically determined. These changes are agreed upon contextually. Thus, discrediting metaphysics, religion and theology because they are not value free can no longer be justified. This implies that the criteria for discrediting disciplines should no longer be based on the *objectivity* of their knowledge, but on their problem-solving abilities (cf. Van Huyssteen 1986:74). Van Huyssteen remarks that astrology, for example, should no longer be deemed irrational or unscientific because its knowledge is not objective. Rather, an appropriate question

would be: does astrology show any problem-solving capabilities? Kuhn's paradigm theory implies that the primary concern should be *who* the scientists are and *why* they are asking these questions. The content of their theory is a secondary issue (cf. 1986:75). It is exactly here where Van Huyssteen finds Kuhn's critique of the distinction between the context of discovery and the context of justification refreshing.

Van Huyssteen notes that although Kuhn does not take his model of rationality to be hugely different from that of Popper's, there are some important differences. The first difference, according to Van Huyssteen, is that Kuhn demonstrated that the dogmatism of knowledge occurs only in *normal science*. In other words, a critical approach will lead to *revolutionary science*, but not necessarily closer to the truth (1986:72). Secondly, *revolutionary science* points toward a conversion in science – conversion takes place within the field of science as well, not just in religion. Thirdly, and most importantly, Kuhn establishes the profound influence of external factors – historical, social, cultural, psychological and economic factors – on science. Hence, metaphysical ideas are not simply external and coincidental factors that influence the growth of scientific knowledge. These ideas are intra-paradigmatically constitutive for the meaning, as well as the credibility, of scientific theory itself. Scientific reflection, according to Kuhn, is not firstly testing (verification or falsification), but rather the ability to render theories intelligible and finding solutions for known puzzles (cf. Van Huyssteen 1986:74). Van Huyssteen remarks that Popper's use of falsification as a demarcating criterion is no longer appropriate anymore, because no theory is true at all times in all situations (cf. 1986:74).

Furthermore, Van Huyssteen comments that Kuhn suggested that it is not possible to compare paradigms (1986:76). There is no meta-narrative that provides criteria for such a comparison, which means that juxtaposing irrational and rational paradigms is unreasonable. As such, it is impossible to give only rational reasons for loyalty to a particular paradigm. However, Van Huyssteen explains that this does leave rationality exposed to relativism. Kuhn suggested that there are good reasons to switch paradigms, but argues that these reasons are never only rational (cf. Van Huyssteen 1986:77).

This being the case, Van Huyssteen reminds us that it is important to note that a paradigm is not an approach to truth. A paradigm is a model that identifies problems and provides a methodology for solving these problems within a particular context, tradition or discipline (cf. Van Huyssteen 1986:77). This means that truth becomes a term that may only be used in a particular context and is always temporary (cf. 1986:78). Consequently, science, as understood by Kuhn according to Van Huyssteen, is a paradigmatically determined social activity which can be progressive, but does not necessarily move closer to the truth (cf. 1986:79).

The importance of Kuhn's work for Van Huyssteen is that it indicates that all knowledge needs a hermeneutical approach. This includes scientific knowledge (cf. Van Huyssteen 1986:80). Kuhn paves the way for the theologian to rise above the typical reaction against positivism (cf. 1986:79). Starting to understand his academic positioning in South Africa, Van Huyssteen comments that theologians who have experienced a radical paradigm shift usually find it necessary to reconstruct their field of study from their reformulated basic commitment. However, this reconstruction might lead to drastic changes in the most basic thematic structuring of a discipline. Nevertheless, the theologian might still be dealing with the same data, but from a new perspective and with a totally new conceptual framework or paradigm (cf. 1986:83).

This leads Van Huyssteen to ask five questions regarding theory formation in systematic theology (1986:91-92).

1. Which models of rationality do theologians use and how do they make a choice for the selected model?
2. What is the origin of claims made in systematic theology? This question entails addressing the role of personal faith commitments and how they are shaped by tradition.
3. Which factors influence theory formation and methodology construction in systematic theology? This also raises the question of the object of theological claims.

4. What is the quality of theology's cognitive nature and objectivity? Here Van Huyssteen asks if the hypothetical/tentative nature of theological claims can be integrated with the nature of rationality. Moreover, he makes a distinction between ordinary faith claims, official church claims and theological claims.
5. Is it possible to make theology intelligible to others in order to allow for some or other form of evaluation? In other words, is it possible to test the truth and credibility of theological claims? This is an important question, because it will illuminate the type of arguments theologians use to justify their claims convincingly.

Van Huyssteen remarks that there were not many theologians who engaged with these questions during the 70s and 80s. Still, in *Teologie as Kritiese Geloofsverantwoording* (1986) [Theology and the Justification of Faith (1989)] Van Huyssteen mentions that he found the academic projects of Wolfhart Pannenberg, Gerhard Sauter,³⁰ Gordon Kaufmann, David Tracy,³¹ Sallie McFague and Heinzpeter Hempelmann valuable in developing answers to the questions formulated above (1986:93). Du Toit explains that critical realism, particularly as developed by Van Huyssteen, originated in the South African context and was profoundly influenced by Wolfhart Pannenberg (in its early stages) and later by William Bartley, Thomas Kuhn and Karl Popper, and more recently creatively developed in discussions with Sallie McFague (metaphorical theology), Arthur Peacocke (critical realism), Nancey Murphy, and Ernan McMullin³² (scientific realism) (Du Toit 1993:300). In this publication Van Huyssteen engaged with the work of Pannenberg and Sauter specifically, because they both address philosophy of science directly regarding these questions.

³⁰ Gerhard Sauter is Emeritus professor of systematic and ecumenical theology; and director of the Ecumenical Institute at the University of Bonn, Germany. He is an ordained minister of the Protestant Church of Kurhessen and Waldeck. He has been in residence as a research scholar at the Center of Theological Inquiry in Princeton. In addition to the themes of promise and hope, Sauter's theological interests include the relationship of theology and science; the history and importance of doctrines of justification and reconciliation; and biblical hermeneutics (Sauter 2007: ix-x).

³¹ David Tracy is an American Roman Catholic theologian. Tracy was ordained as priest in Bridgeport. In 1999-2000, Tracy gave the Gifford Lectures and the title of his lectures was *This Side of God*.

³² Ernan McMullin was the O'Hara Professor of Philosophy Emeritus at the University of Notre Dame.

The work of Wolfhart Pannenberg³³ was of immense importance to Van Huyssteen, because Pannenberg asked the question: What is theology? In Van Huyssteen's view, Pannenberg argues that theology wants to be faithful to the revelation of God in Jesus Christ as testified to in the Bible, yet theology also has a universal character seeing that it makes claims about God (1986:95). Van Huyssteen explains that Pannenberg argued that creation is not only dependent on God, but unintelligible without God. Therefore any aspect of reality can only be appropriately known – tentatively – in relation to God and God's revelation. For this reason he argued that theology should never be a positivistic church theology in isolation from other disciplines (cf. 1986:96). The task of theology, according to Pannenberg as understood by Van Huyssteen, should never be watered-down to mere scriptural explanation (cf. 1986:96). Theology has a responsibility to rationality and this responsibility must be accepted by the systematic theologian. An exclusive church theology is unacceptable, which also led Pannenberg to critique Barth's uncritical dogmatic approach to theology (cf. Van Huyssteen 1986:102).

Van Huyssteen points out that Pannenberg acknowledges that the discussion on rationality, objectivity and truth in philosophy of science opens up a new aspect of theological reflection (1986:97). Theology's participation in this conversation is vital, not only because it renews theology as a scientific discipline, but also because it helps the theologian to be self-critical (cf. 1986:97). Pannenberg went as far as to state that Christian theology has been in conversation with philosophy since the 2nd century and if theological faculties should disappear from universities and withdraw to isolated church seminaries, the Christian faith's truth-consciousness will be lost.

Van Huyssteen observes that, regarding these issues, Pannenberg also focuses on Popper's *critical rationalism* and Kuhn's *paradigm theory*. Pannenberg questions

³³ Pannenberg introduced the work of Karl Popper to the discussion about science and religion in his *Theology and the Philosophy of Science* (1976). In *The Postfoundationalist Task of Theology: Wolfhart Pannenberg and the New Theological Rationality* (1999) Shults argues that the popular *foundationalist* reading of Pannenberg is a misinterpretation of his methodology. Shults shows that the structural dynamics of Pannenberg's approach offer significant resources for the postfoundationalist task of theology in a postmodern culture. However, Shults (1999:237) does not argue that Pannenberg was a proto-postfoundationalist nor that he fits exactly in the postfoundationalist camp, but rather that Pannenberg's project can be used as a resource in postfoundationalist theology.

Popper's use of falsification as a demarcating tool and asks if his critical rationalism (specifically designed for the natural sciences) can be adopted uncritically by theology (cf. Van Huyssteen 1986:100). Nevertheless, Pannenberg does not dismiss critical rationalism naively and works his way from the inside out.

Pannenberg writes about critical rationalism that the personal commitments of scientists – and therefore the paradigm according to which they approach their life and work – plays a role in both the context of discovery and the context of justification (cf. Van Huyssteen 1986:102). Pannenberg argues that the most important principle in scientific reflection is the ability to integrate and render intelligible the available data in order to solve puzzles. Hence, Pannenberg attempts to construct a model of rationality that rises above critical rationalism.

In dealing with this Pannenberg, according to Van Huyssteen, agrees that criteria for justification are needed (1986:104). There is no way of evaluating the rationality of knowledge without appropriate criteria. However, he critiques logical positivists' narrow empirical understanding of these criteria. All knowledge is generated within particular paradigms (cf. 1986:102). This means that all scientific, theological and pre-theological faith claims should be understood as hypotheses. As such, Pannenberg took Scholz's three minimum requirements as criteria for a credible systematic theology – irrefutability, coherence and controllability (cf. 1986:106). Consequently, Pannenberg addresses Scholz's requirements by defining theology as: the science of God (cf. 1986:107). In other words: the science about God.

Van Huyssteen explains that Pannenberg understood that within this discipline the truthfulness of the Christian understanding of God could be discussed. This is to say, theology should not be narrowed to Christian theology. Christian theology is a specific discipline within the broader field of theology. Pannenberg acknowledges that the idea of God as such is problematic and needs to be discussed (cf. Van Huyssteen 1986:108). In addressing the matter, Pannenberg argues that if God is a reality, God should be an all-determining reality. This means that we should pursue an understanding of God that best succeeds in integrating human experience meaningfully – an understanding of God

that most displays problem-solving abilities (cf. 1986:108). Thus, Van Huyssteen remarks, the truthfulness of any claim about God is evaluated according to its implications for our experience of reality (cf. 1986:109).³⁴ This means that any claim about God that hinders or distorts our experience and understanding of reality is not credible. Moreover, these claims should always be understood as hypotheses, the reason being that our experience of reality is always unfinished. Even though we are aware of an all-inclusive reality, we have no direct access to it. Therefore we need to evaluate it according to its implications for our reality. Thus, theology reflects on our religious experiences, religious practices and understanding of this all-inclusive reality. Theology as science of God is only possible indirectly through *God-experiences* and religious experiences³⁵ (cf. 1986:111).

Van Huyssteen summarises the development of Pannenberg's idea of theology as the science of God (1989:89) in five points.

1. Theology can be a science of God only indirectly, through people's experiences of God and of religion in the light of reality as a whole.
2. Total reality, however, does not yet exist in its final form; it is still an incomplete process and therefore accessible only through the subjectivity of humankind's religious experience as an anticipation of that totality.
3. The anticipatory character of religious experience can ultimately be recognized as a manifestation of divine reality. Individual religious experience, however, must always be seen in relation to the historical religions and are relevant only in terms of that intersubjective relationship.
4. In its first place, therefore, theology as the science of God is possible only as the science of historical religions.
5. Christian theology becomes possible only in the next phase, as the science of the Christian religion or of Christianity.

³⁴ Grenz (1990:21) also follows this argument of Pannenberg: "...the idea of God grows out of interpretation of experience and is related to the unity of the world as a whole."

³⁵ This is significant, because Van Huyssteen himself would come to argue for religious experience as the focus of theological reflection.

Important to Van Huyssteen here is the argument that the science of Christian religion is only possible within a broader science of God (1986:112). This reveals that Pannenberg was still caught within a framework of critical rationalism, because he argued for a particular type of non-commitment. Van Huyssteen remarks that once again the theologian's faith commitment is acknowledged in the context of discovery, but not in the context of justification (1986:112). Hence, Pannenberg does not succeed in his attempt to rise above Popper's critical rationalism (cf. 1986:113).

In Van Huyssteen's view, Pannenberg does not keep consistently to his own argument. His idea of God still shows traces of Christian thought (cf. Van Huyssteen 1986:123). Pannenberg tries to deal with the question of God before moving to a Christian understanding, but he seems to fail in this regard. Stating that God should be an all-determining reality already shows Christian traces. This might be true, but should be argued for more rigorously. Furthermore, Pannenberg agrees with Kuhn that paradigms cannot be compared, but he tends toward a communal understanding of God (cf. 1986:123). To some extent he disregards the contextuality of our understanding of God. Van Huyssteen observes that Pannenberg does not directly address the faith commitment of the theologian and leaves the question unexamined (cf. 1986:112). The faith commitment of the theologian is acknowledged in the context of discovery, but not in evaluating such claims. When evaluating theological claims, Pannenberg leaves Van Huyssteen unconvinced about the place and function of the theologian's faith commitment. Pannenberg seems to opt for non-commitment in evaluating theological claims, which implies a commitment to non-commitment. He would have to argue more cogently for this non-commitment for it to be logical and coherent (cf. 1986:122).

Nevertheless, Van Huyssteen expresses gratitude for Pannenberg's suggestion that theological claims should be evaluated on the basis of their accuracy in explaining and anticipating religious experience (1986:117). However, Van Huyssteen suggests that Pannenberg would have to agree that commitment already plays a role in experience, and that this commitment could be identified and evaluated. In this regard Pannenberg has succeeded in constructing at least one criterion for a credible systematic theology.

Moreover, evaluating theological claims, Pannenberg agrees with Kuhn that a theory should be judged by its ability to solve problems meaningfully (cf. Van Huyssteen 1986:118).³⁶ Pannenberg also answers the question as to the origin of theory construction in systematic theology. He argues that theological theories are moulded by the way in which people experience the reality around them (cf. Van Huyssteen 1986:117). However, Van Huyssteen remarks that it is because of this fact that commitment will always be part of the context of justification for the systematic theologian (cf. 1986:117).

Van Huyssteen notes, in agreement with Pannenberg, that Gerhard Sauter also rejected dogmatic theology. He opted for an argumentative theology instead (1986:126). Sauter argued that the only convincing way of constructing theological identity is in conversation with the philosophy of science.³⁷

Van Huyssteen observes that Sauter warned theologians against an aggressive *No* to the philosophy of science and a disregard of the discussions in that field. Furthermore, he cautioned against a pseudo-scientific adjustment of theological reflection to accommodate the philosophy of science (1986:129). Sauter also rejected Scholz's minimum requirements. Language analysis, as well as theology's social relations, is important to Sauter (1986:130). As such, Sauter distinguishes between scientific and pre-scientific language in conversation with the philosophy of science (1986:127). Sauter also stressed the importance of the relationship between theology and the church.

According to Van Huyssteen, Sauter argued that a theological theory firstly consists of language critique (1986:130). Seeing that society plays an important role here, Sauter suggested that the church should be seen as the orientation-horizon for theology. The church supplies theology with a context and should therefore guide theological reflection, because it is within the church that religious experiences are articulated.

³⁶ Van Huyssteen employs these views again in moulding his own postfoundational model of rationality.

³⁷ According to Van Huyssteen, Sauter points out that Protestant theologians tend to be reserved, even adversarial, about the term *theory*. They understand the term to suggest something too abstract and removed from a living relationship with God. This is probably born out of a fear that the unique nature of theological reflection would be reduced to a secular science in conversation with the philosophy of science (1986:126)

Theology's task is then to justify these verbalisations (1986:135). Sauter also made a distinction between the truth of God and the truth of theological utterances (1986:143). While a consensus-truth points towards the truth, it does not necessarily reveal the truth (1986:147). This led Van Huyssteen to ask Sauter about this issue of consensus. Van Huyssteen explains that Sauter understood the church as fulfilling this consensus-creating role. Van Huyssteen, however, questions the church's capability to do this, judging by its track record on such matters (1986:149). Furthermore, Van Huyssteen points out that Sauter's proposal is still dogmatic in character. Sauter argued for a critical analysis of theological theory formation, but restricted this discussion to the church (cf. 1986:139). According to Van Huyssteen, Sauter went back to Scholz's requirements in his own language and was therefore not free of them.

Van Huyssteen, however, concurred with David Tracy, whom he cites with approval:

Theology, by the very nature of the kind of fundamental existential questions it asks and because of the nature of the reality of God upon which theology reflects, must develop public, not private, criteria and discourse (1986:151).

Van Huyssteen is of the opinion that the theologian who acknowledges contemporary issues in philosophy of science is confronted with a challenge as well as a responsibility to articulate a creative and credible model of rationality for systematic theology (1986:151).

Van Huyssteen argues that reflecting on the nature and structure of theology is always fundamentally a form of language analysis. No religious experience can be understood pre-linguistically (1986:153) and therefore language analysis does emerge as the starting point of theological reflection (1986:154). Here Van Huyssteen refers to the work of Kuhn. Kuhn's paradigm theory illustrates that science is a social and cultural activity, and, as such, that knowledge is determined by contextual factors. Van Huyssteen argues that this is true for systematic theology as well (1986:154). If this is true, Van Huyssteen then thinks it appropriate to suggest that a religious experience is determined by the language and tradition of a community and faith becomes an all-encompassing model

for interpreting reality.³⁸ Van Huyssteen finds it interesting to note that if religious experience is determined by these factors, it is possible that the paradigm implemented by the church through its confessions could actually determine the way in which religious persons experience their faith (cf. 1986:124). Van Huyssteen then identifies the Bible as the primary origin of religious experience in the Christian tradition (1986:155). Thus the Bible should be understood as the fundamental, though not exclusive, expression of the Christian religious experience (cf. 1986:155). Van Huyssteen explains that this means the language used within Christian traditions has its roots in the language of the Bible. It is important to note here that Van Huyssteen understands religious language to contain a cognitive core (1986:156). This is to say, language is not only expressive. Language contains knowledge referring to reality. Thus, the language used in Christian traditions is not only expressive of feelings or emotions, but contains references to reality as well.

Van Huyssteen explains that in the Christian paradigm the language of faith refers directly or indirectly to particular types of experiences that Christians have come to call an experience of God. For this reason it is of the utmost importance that critical theologians acknowledge their personal faith commitment. It is only in acknowledging their subjective faith commitment that intersubjective knowledge can be acquired (1986:157). Therefore Van Huyssteen argues that the subjective faith commitment is not a flaw in the argumentative process or methodology of theologians. It is a necessary component of the development of rational knowledge in theology (1986:158). Participation in the pursuit of optimal understanding does not require value-free knowledge, for such knowledge is impossible. However, acknowledging the values to which they are committed is compulsory for theologians. Once this is on the table, discussion of these values becomes possible. Van Huyssteen states that any model of rationality that does not account for this is not only inappropriate for theological reflection, but suspect in contemporary philosophy of science (1986:158). The tension

³⁸ Van Huyssteen (1986:154) cites Anthony O’Hear who phrases this well: “Faith, indeed, for the religious believer is not a belief or a set of beliefs alongside scientific beliefs, historical beliefs, psychological beliefs and the rest. It is something much more like an all-encompassing set of attitudes to human life and the world, a context in which one’s whole life, including one’s cognitive life, is set. Faith is that which men live by.”

created between the faith commitment and the critical analysis of it provides the creativity needed for forming new questions and responses.

Forging ahead, Van Huyssteen explains that if language analysis is taken as the starting point in theological methodology, a clear understanding of the metaphorical character of language is needed (1986:159). He suggests that the metaphorical nature of the language of faith refers to its hypothetical and limited nature (1986:159). As such, it is important to understand the nature of metaphor.

In Van Huyssteen's view, a metaphor is a way of making sense of the unknown in terms of the known (1986:159). One uses the knowledge one has metaphorically to refer to that which one does not know, but is aware of. In other words, when it comes to dimensions or sections of reality to which we do not have direct access, we describe them in terms of what we know. Van Huyssteen (1986:160) cites Sally TeSelle:

...metaphor follows the way the human mind works...

Therefore, Van Huyssteen claims, metaphorical language is as fundamental as thought itself. Consequently, language is not only a way of communication, but a way of knowing (1986:160). In this sense, language not only reflects reality, but constructs reality (1986:163). Van Huyssteen, therefore, takes metaphor to be the key to understanding the theological process towards achieving knowledge. But he adds that it is important not to reduce metaphor to *likeness* (1986:160). A distinction should be made here. Moreover, Van Huyssteen states that theology, as well as science, works with metaphors (1986:162).

In constructing scientific and theological language we move from metaphors to models (Van Huyssteen 1986:163). Van Huyssteen explains that models function as elaborated and systematized metaphors. Van Huyssteen (1986:164) here cites Sallie McFague who suggested that:

The simplest way to define a model is as a dominant metaphor, a metaphor with staying power.³⁹

Models allow us to interpret and explain experiences. Moreover, they allow for creative imagination, because of their metaphorical roots. Good models provide a network of concepts and language which assists intelligibility, but more than that, they keep a balance between simplicity and detail (1986:164). This is the way good models allow for creativity. Consequently, we move from metaphor to model to theory. Interestingly, Van Huyssteen notes that theological models tend to be more permanent than other scientific models (1986:165). This makes theological models more vulnerable to idolization. This is most probably because theological models tend to be all-encompassing and therefore tend to function as unchangeable root metaphors. This permanence provides the necessary continuity needed; however, the hypothetical nature of these metaphors is eventually lost (1986:165-166).

Van Huyssteen observes that as one moves from the known to the unknown, these models become the conceptual framework or dogmas one uses in all reflection. It is not possible to explain experiences or phenomena otherwise (1986:165). Van Huyssteen also states that this is true for all reflective activities, including scientific inquiry (1986:165). Keeping this in mind, the interdependence between the metaphorical language of faith and the theoretical language of theology becomes apparent (1986:167). It is within a theological model that religious experience occurs. But this religious experience also informs the model through the language of faith. In other words, metaphors feed theoretical concepts, while theoretical concepts provide a perspective on these metaphors (1986:167).

It is precisely the metaphorical nature of language, including the language of faith, which allows Van Huyssteen to construct a model of rationality which he calls *critical*

³⁹ McFague (1983:102) makes four points regarding metaphors and models: "First, models provide intelligibility for the unintelligible...Second, models are not pictures of entities, but networks or structures of relationships, focused on behavior...in each case we are dealing with a set of relationships that serve as an explanation of the way an unfamiliar phenomenon works in terms of the structure of a more familiar area. Third, models, in conjunction with theories, provide an ever widening panorama of explanation, allowing phenomena within a field and at times across fields to be linked in connecting networks...Fourth, models are paradigm-dependent, *created* as well as *discovered* by persons working within a set of assumptions..."

realism (1986:168). Van Huyssteen explains that it mirrors *scientific realism* to some extent; *critical realism* is *realistic*, because it can decode the cognitive and referential nature of analogical language as indirect language use. It is, however, also *critical*, because it teaches us not to idolise models because we neglect or ignore their hypothetical nature (1986:168). Van Huyssteen thus understands theology as a mode of critical reflection (1986:170). It reflects on metaphorical faith language by way of models towards achieving a clearer, though tentative, theoretical concept and articulation of knowledge of God (1986:170). It becomes necessary for theologians to show that their claims do depict reality and why these claims are relevant to their contexts. However, Van Huyssteen acknowledges that the contextuality of the language of faith and the models used in theological reflection do present a problem in constructing a credible model of rationality appropriate for theology. Van Huyssteen (1986:170) cites Michael Polanyi:

Our believing is conditioned at its source by our belonging.

No theologian, Van Huyssteen remarks, can be content with an isolated, self-justifying theology creating its own truth. Van Huyssteen therefore argues that it is vital to move beyond Kuhn (1986:170). He writes that theologians need a model that is rational, but contextual as well. Intercontextual, as well as inter-paradigmatic, conversation is needed, because theologians from diverse traditions can help and assist each other towards achieving greater coherence and consistency in their theological theories, models and metaphors (1986:171). Theologians should reflect on intradisciplinary and ecumenical issues, as well as relevant contemporary issues beyond the borders of the church (1986:171). For this reason theologians are in need of appropriate criteria for constructing a model of rationality capable of evaluating diverse paradigms. Whatever forms such a model might take, it should be constructed above the confessional level (1986:171). This is not to say, however, that theology should be constructed a-contextually,⁴⁰ for that is impossible (1986:171). But it does mean that theology should

⁴⁰ De Gruchy (1985:28) had responded to Van Huyssteen's *Belydenis as Denkmiddel - 'n Teologie tussen Insig en Ervaring* (1985) [Confession as Thought Model: A Theology between Understanding and Experience] delivered in 1984, by pointing out that the question concerning theological methodology was more than an academic issue in South Africa at the time. He also raised concerns about Van Huyssteen's approach to systematic theology. De

not be isolated because of confessional reasons. Therefore, Van Huyssteen urges theologians first to discuss matters relating to *how* they believe and not just *what* they believe.

Hence, to facilitate a discussion on the rationality of a credible systematic theology, Van Huyssteen proposes three criteria (cf. Van Huyssteen 1986:172):

1. It must depict reality (reality depicting);
2. It must have critical and problem-solving abilities (problem-solving); and
3. It must show progressive capabilities (progressiveness).

Regarding theology's ability to depict reality, Van Huyssteen distinguishes between the cognitive and contextual aspects (1986:173). Van Huyssteen does this by explaining that *scientific realism* claims that there is good reason to believe the structure and entities as postulated in scientific theory do exist (1986:174). Van Huyssteen (1986:219 footnote 49) cites Ernan McMullin, who explains that:

The realist would not use the term *true* to describe a good theory. He would suppose that the structures of the theory give some insight into the structures of the world. But he could not, in general, say how good the insight is. He has no independent access to the world.

Scientific realism for Van Huyssteen (1986:175) therefore suggests that:

1. A particular theory is exceptionally successful if it survives over a long period of time;
2. The success of a theory provides ample reason to believe that which it explains, even though there is no definite evidence to support it;
3. Therefore, the structures of successful theories are similar to those of reality.

Scientific realism refers to the cognitive aspect of theories and Van Huyssteen appropriates this for theology in his *critical realism*.

Gruchy was of opinion that Van Huyssteen's model would lead toward a-contextual theology. Here Van Huyssteen (1986:218 footnote 45) is referring to that issue raised by De Gruchy two years before.

Regarding the contextual aspect of theology's depiction of reality, Van Huyssteen distinguishes between three contexts, namely the context of religious experience, the context of the church and the context of theological reflection (1986:177). These contexts are interdependent to each other, but each refers to a discrete dimension. Religious experience creates a foundation for the church and problems within these two contexts lead to the context of theological reflection through a process of theory construction (1986:178). The task of theological reflection is therefore critical analysis, problem identification and problem solving. As such, theological reflection rises far above the contexts of religious experience and church, but does, however, come back to them (1986:178).

In the context of religious experience it becomes clear that all religious experience is rooted in a specific ultimate/faith commitment (Van Huyssteen 1986:178). The language of faith, in turn, is a verbalisation and objectification of the meaning or truth of the religious experience. Therefore, Van Huyssteen explains, religious experience and the language of faith are linked to a specific religion/faith tradition. Furthermore, Van Huyssteen clarifies that he understands a faith tradition as an all-encompassing religious paradigm that rests on myths and tales and is usually heavily ritualised (1986:178). Additionally, Van Huyssteen explains that faith traditions create a space which allows for the creation, use and description of symbols. It also creates space for the forming of specific convictions and the occurrence of definite inner experiences, feelings and sentiments (cf. 1986:178). Van Huyssteen (1986:178) cites George Lindbeck, who expresses this well when he writes about the influence of a faith tradition on a person's life:

The primary knowledge is not about the religion, nor that the religion teaches such and such, but rather how to be religious in such and such ways.

Van Huyssteen also suggests that prayer, meditation, liturgy, music, art and ritual are not mere external decorations (1986:179). These rituals help believers to make the faith tradition their own. Van Huyssteen further suggests that religious people learn how to feel, act and think in accordance to the faith tradition (1986:179). There is more to the

faith tradition than can be articulated and therefore prayer, music etc. also serve as an essential part of the religious experience.⁴¹

This, however, brings Van Huyssteen to an important point. Whatever is experienced, articulated and understood must be coherent with the broader faith tradition (1986:179). Therefore, theologians should be cognisant of the issues of the wider tradition in their reflections. Yet new developments in faith traditions do occur and Van Huyssteen makes room for this. He explains that systematic theologians discover and identify most of the puzzles/problems they reflect on in the context of religious experience, not in the context of theological reflection (1986:179). Keeping this in mind, Van Huyssteen suggests that the systematic theologian identifies and formulates problems which are already alive in the minds of religious people (1986:180). Taking this even further, Van Huyssteen argues that the systematic theologian has a responsibility to the public as well, not just to the church. Theologians should identify problems relating to faith in public and attempt to solve them as meaningfully as possible (1986:180). However, systematic theologians should remember that if they engage the public, they will have to be sensitive to the cultural context of the religious issue (1986:180).

Coming to the church as context, Van Huyssteen explains that it is here that theological claims become part of reality (1986:181). The systematic theologian is linked to some or other faith tradition and its religious convictions. Furthermore, Van Huyssteen suggests that theologians reflect critically on their faith tradition in order to uphold its credibility (1986:181). In contrast to Sauter, though, Van Huyssteen argues that the church should not function as the exclusive orientation horizon for theological reflection (1986:183-184). Theologians must reflect critically on the paradigm(s) of their faith tradition. This again raises the question of theologians' faith commitment and its influence on their theological reflection. Van Huyssteen stresses the importance of not becoming a champion of a group ideology (1986:183). The theologian has to serve the church, but also has to be autonomous as a scientist within an academic context (1986:184). Given

⁴¹ Here, Van Huyssteen defines a *religious experience* as entailing *the presence of God*, but later he does not define the term as definitively.

this, and taking the personalities of theologians into consideration (1986:185), it is important first to ask the questions: *who are these theologians and how do they understand themselves?* Only after answering these questions can one ask: *what is theology?* Van Huyssteen explains that by asking *who* these theologians are will automatically incorporate the context within which they reflect (1986:185). In *Rethinking Theology and Science* (1998) Van Huyssteen introduces Harold Brown's notion of the *rational agent* in his discussion on a postfoundationalist notion of human rationality, which builds on this suggestion by Van Huyssteen.

Taking this into account, Van Huyssteen turns to the question of the context of theological reflection. Van Huyssteen makes it abundantly clear that the critical approach adopted by theologians does not in any way threaten the religious person's certainty of faith (1986:185). Instead, theologians are illuminating the uncertainties experienced within the faith commitment.

All these contexts are important and none of them should be neglected. Interestingly, Van Huyssteen suggests that focusing on only one would qualify as a form of positivism (1986:187). Therefore, focusing only on the context of the church would be a form of positivism. However, focusing only on either the context of theology or religious experience would also be a form of positivism. It is important to maintain a balance between these three contexts, because dwelling only on experience, community or theoretical reflection would leave the theologian, as well as the religious person, caught within a one-sided view on the reality of their faith (1986:187).

Turning to the second criterion for a credible model of rationality for systematic theology – the critical and problem-solving abilities of theological theories – Van Huyssteen turns to Larry Laudan.⁴²

Like Kuhn, Van Huyssteen notes that Laudan argues that non-empirical, as well as non-scientific, factors play an enormous part in the development of rationality (1986:188).

⁴² Larry Laudan is a philosopher of science and epistemologist. He sought to preserve the rationality of science against the threat perceived in Kuhn's holistic picture of scientific change. "According to Laudan, a closer look at the history of science shows not a wholesale exchange of one paradigm for another, but rather the components of the disciplinary matrix...being negotiated individually (Van Huyssteen 2003:653)."

Furthermore, Laudan suggests that the rationality and progressiveness of a theory are closely connected to its ability to solve problems effectively within a given context (cf. 1986:188). In other words, the rationality and progressiveness of a theory are not determined by certain controls such as verification or falsification. It is the effectiveness of its problem-solving capabilities that render it rational. However, Van Huyssteen remarks that Laudan is not so much concerned with particular individual theories, but with research traditions/ paradigms/ theory networks. According to Van Huyssteen (1986:188), Laudan claimed that his perspective on scientific reflection and problem-solving could be implemented in all intellectual problem-solving activities.

Van Huyssteen explains that Laudan understands problems as questions and theories as answers/responses to these questions, adding that Laudan makes a distinction between empirical problems and conceptual problems (1986:189). Van Huyssteen (1986:189) cites Laudan in order to show that he strips empirical problems of their positivist air:

...generally, anything about the natural world which strikes us as odd, or otherwise in need of explanation, constitutes an empirical problem.

Therefore Van Huyssteen points out that issues which are understood to be problematic are greatly determined by the models and theories in use (1986:189). In other words, the research tradition/ paradigm/ theory network through which the world is understood determines what strikes us as odd and in need of explanation. For theologians the determining factor will be their faith commitment as well as their theoretical commitments to particular models or research traditions (1986:189). This helps Van Huyssteen to construct a response to the question of the theologian's faith commitment. Nevertheless, the main aspect of Laudan's approach that interests Van Huyssteen is Laudan's suggestion that rationality is the process of transforming unsolved problems into solved problems as appropriately as possible (1986:188).

Taking this model seriously, Van Huyssteen explains that empirical problems in theology would then include: the reality of evil; the meaning of death and suffering if

one believes God to be good and loving; socio-political problems; ethical issues, etc. (1986:190).

Regarding conceptual problems, Van Huyssteen observes that Laudan made a distinction between internal problems and external problems (1986:190). Van Huyssteen explains that internal problems occur when one identifies incoherence and inconsistency within a particular theory. In theology such internal conceptual problems include: the dogma regarding the Trinity; the idea of pre-destination; the Christological problem regarding Jesus Christ's two natures etc. (1986:191). External problems refer to conflict between broader worldviews. In theology such problems would include selecting a methodological choice for a particular theory of hermeneutics, or the search for a credible model of rationality for theology (1986:191). Taking this into consideration, Van Huyssteen suggests that empirical problems are usually rooted in conceptual problems, and that internal conceptual problems are in turn rooted in external conceptual problems (1986:191). Therefore Van Huyssteen suggests that it is necessary to construct a credible model of rationality, appropriate for theology, if one intends to solve problems regarding doctrinal notions such as biblical authority and socio-political issues.

Additionally, within his critical realist model, Van Huyssteen provides three guidelines specifically regarding problem solving in theological reflection (1986:192). These guidelines are related to the Bible as classic document of origin; the tradition of Christian reflection; and contemporary scientific thought (1986:192-206).

Regarding the first guideline, Van Huyssteen refers to previous publications and argues for the Bible as a document written by and for religious people (1986:193). For Van Huyssteen the authority of the Bible lies on a religious level. It is a meeting with Jesus Christ which is only possible through the mediation of the Bible as the only access to Jesus of Nazareth (1986:194).

Regarding the second guideline, Van Huyssteen states that the interpretation of tradition in theology (Christian reflection) – theological models and theories – is a complex, hermeneutical, historical, dogmatic and sociological problem (1986:196). The

reason for this is that dogma and church confessions were constructed within a very specific context, with a very specific issue in mind (1986:197). As such, it would be completely inappropriate to use dogma and church confessions as timeless, true and infallible criteria for further theological reflection.

The third guideline Van Huyssteen proposes is an acknowledgment of the potential that the discussion in philosophy of science holds for the theologian's responsibility to rationality (1986:203).

The third and final criterion Van Huyssteen proposes in his critical realist approach is the progressiveness of theological theories. As mentioned above, Laudan suggests that the rationality and progressiveness of a theory are closely connected to its ability to solve problems effectively (cf. Van Huyssteen 1986:188). However, Van Huyssteen observes that Laudan goes further and claims that rationality entails making the most progressive choice of theory (1986:206). This differs greatly from the traditional view that progress means choosing the most rational theory (1986:206). Van Huyssteen explains that Laudan's suggestion implies that replacing an old theory with a new theory can only be understood as progress if the new theory possesses more effective problem-solving abilities than the preceding theory (1986:207). Van Huyssteen also incorporates Ernan McMullin's suggestion that a good theory always serves as basis for further research and reflection (1986:212).

In *Teologie as Kritiese Geloofsverantwoording* (1986) [Theology and the Justification of Faith (1989)] Van Huyssteen stops short of articulating a complete, credible model of rationality appropriate for systematic theology as he would come to do in *The Shaping of Rationality* (1999). Still, he moves closer to this by constructing the criteria discussed above. Van Huyssteen unearthed the richness that the philosophy of science could bring to theology and broke away from – what he would later call – foundationalist thought. He illustrated why systematic theologians should engage with philosophers of science regarding methodology and why foundationalist thought in theology can no longer be tolerated. Yet, while showing the way beyond foundationalist thought, the next challenge Van Huyssteen would have to face was the nonfoundationalist tendencies of postmodern

thought. It is in dealing with the postmodern problem that Van Huyssteen constructs his postfoundationalist model of rationality. Consequently, before discussing Van Huyssteen's postfoundationalist approach to rationality, a consideration of Van Huyssteen's understanding of, and response to, postmodern thought is necessary.

Chapter Two – Nonfoundationalist Approaches

In *The Shaping of Rationality* (1999) Van Huyssteen deals directly with the postmodern challenge. He writes (1999:3):

...both the traditional domains of science and theology have now woken up to find their identities challenged and changed by a new pervasive postmodern culture.

Van Huyssteen remarks that postmodern thought has placed rationality itself under the microscope and seriously challenged the way rationality was understood (1999:3):

...rationality will indeed turn out to have many faces, and is indeed as many-sided and wide-ranging as the domain of intelligence itself.

Van Huyssteen is convinced that it is necessary to 'save' rationality, because it gives us our identity as human beings.⁴³ He explains the challenge of revisioning the notion of rationality as follows:

The special focus of the postmodern challenge to human rationality will therefore be found in the challenge to revision the notion of rationality in such a way that all our reasoning strategies will ultimately again benefit from the rich resources of rationality (1999:3).

Van Huyssteen (1999:4) observes that the most challenging and powerful aspect of postmodern thought is its contempt for universal epistemological guarantees. He puts it well:

Not only theology, but also postmodern science and postmodern philosophy of science have moved away quite dramatically from positivist and technocentric conceptions of scientific rationality with its closely aligned beliefs in linear progress, guaranteed success, deterministic predictability, absolute truths, and

⁴³ This is a very important issue for Van Huyssteen. Human rationality and identity are his main concern in his Gifford Lectures, published as *Alone in the world? Human Uniqueness in Science and Theology* (2006), as well as in his most recent publication *In Search of Self* (2011).

some uniform, standardized form of knowledge...some contemporary philosophers of science now argue for a postmodern philosophy of science, which rejects all global interpretations of science as well as the power-play implied by scientific progress, and focuses instead on trust in local scientific practice (1999:6).

Furthermore, Van Huyssteen explains that postmodern approaches make interdisciplinary conversation difficult:

...this kind of postmodernism in science not only sharply deconstructs and rejects the autonomy and cultural dominance of especially the natural sciences as the accepted paradigm for rationality in our time, but will also seriously challenge and deconstruct an attempt to develop a meaningful and intelligible relationship between science and Christian theology today (1999:6-7).

Van Huyssteen observes that some postmodernists even go so far as to see tight definitions of academic disciplines as remnants of modernity (1999:10). As such, they bring into question the possibility of rigid disciplinary boundaries between the natural sciences, social sciences, humanities, art, literature and religious reflection. Furthermore, Van Huyssteen (1999:10) explains, postmodern philosophy of science takes science to be a:

...historically dynamic process in which there are conflicting and competing paradigms theories, research programs and research traditions.

In other words, postmodern philosophers of science argue that the local and social practices of scientists inform the reasons, arguments and value judgements they employ in their research. Van Huyssteen interprets this to hold lethal implications for the philosophy of science itself, because no meta-standpoint can be formed from which to interpret and evaluate scientific endeavour (1999:10). Van Huyssteen adds it is important to note that what postmodernists claim here:

...is not that scientific knowledge has no universality, but rather that what universality it has is an achievement always first of all rooted in local know-how.

This leads Van Huyssteen to formulate a challenge to which he comes back to often:

The postmodern challenge not only makes it virtually impossible to speak so generally about *rationality, science, theology* or *God*, it is rationality itself that has been fundamentally challenged and problematized by postmodernism (1999:11).

Van Huyssteen therefore concludes that while postmodern thought helps us to move away from the dangers of foundationalism, it is still rooted in anti-/nonfoundationalism and therefore does not help us move beyond relativism (1999:11).

Van Huyssteen suggests that postmodern thought, in both its constructive and deconstructive modes, seems to reject ideas such as unity, totality, identity, sameness and consensus. Instead it appeals to pluralism, heterogeneity, multiplicity, diversity, incommensurability and dissensus (1999:24). This stance is very different from the modernist understanding, where science was:

...treated as a single intellectual enterprise with one reliable method for all its different disciplines and research programs (1999:24).

Some postmodernists go so far as to disregard epistemology altogether and question the possibility of rationality as such (Van Huyssteen 1999:24).

Van Huyssteen refers to Paul Murray in explaining the contrasting roles of theology and science in a modernist notion of rationality (1999:27):

1. Science is generally seen as a truly modern form of knowing, while theology represents at best a premodern throwback;
2. Science is really useful, public and reliable, whereas theology promotes a retreat into a private world of subjective faith and esoteric commitment;
3. science is objective and value free, whereas theology is fatally compromised by the highly personal values originating in personal commitment;

4. Science is open to various modes of justification or falsification, while theological reflection is by definition ideologically and dogmatically entrenched;
5. Science is based on empirical data and a methodology that ensures objectivity, while theology focuses on spiritual and highly speculative matters and as such deals only in subjective meaning.

This contrast between science and theology can no longer be sustained, seeing that postmodern thought has transformed the modern notion of rationality. Van Huyssteen (1999:28) explains that post-positivistic thinkers, such as Thomas S. Kuhn and Larry Laudan, showed strong anti-modernist affinities⁴⁴ and themes such as:

...dethroning the sciences from their cultural pre-eminence, recognizing the profound and pervasive influence of dogmatic or irrational belief, as well as the distinctive role of particularistic communities in scientific practice, and replacing formal rules, methods, and rational criticism with the language of religious conversion and unanalyzable holistic *Gestalt* switches.

The question that arises here for Van Huyssteen is whether interdisciplinary conversation is possible in a postmodern culture:

In a context deeply affected by what many see as the fragmentation and rampant pluralism of postmodernity, would some form of intelligible, cross-disciplinary conversation between theology and science be at all possible today? (1999:28).

Van Huyssteen argues that only once an appropriate understanding of postmodern thought has been achieved, can an appropriate response to this question be formulated. However, reaching such an understanding of postmodern thought has become notoriously difficult (1999:28).

In this regard, Van Huyssteen (1999:29) refers to Gary L. Comstock, who argued that one can only explain postmodern thought successfully if one initially contrasts it to

⁴⁴ Van Huyssteen (1999:28) comments that "In a broader cultural context it would be precisely the end of metaphysics, *the death of God*, the disappearance of the author, the crisis of reason, and the dissipation of all meta-narratives that would mark the definite demise of the modern."

modernist thought. According to Van Huyssteen, Comstock describes modern thought as the belief that scientific reflection is superior to other modes of reflection and the only road to truth. As such modern thought tends to be foundationalistic and legitimises itself by various meta-narratives (1999:29):

- Epistemologically: knowledge rests on a few unquestionable and certain beliefs;
- Ethically: morality rests on unquestionable rational principles;
- Scientifically: scientific progress and true discoveries are the result of adhering to a universally accepted value-free and objective methodology.

Thus for Comstock modern thought claims that true knowledge rests on a few unquestionable beliefs (Van Huyssteen 1999:29).

Van Huyssteen, concurring with Schrag, argues for understanding postmodernist thought as an *attitude* towards knowledge.⁴⁵ He explains that this attitude resists a clear and simple definition, because it does not establish a doctrinal platform from which to operate (1999:29).

Nancey Murphy,⁴⁶ according to Van Huyssteen, argues that a move beyond modern thought is always a move beyond epistemological foundationalism, the referential view of language and the typical individualism of modernism (1999:30). The individual is not seen to exist prior to the community, but is part of it. Thus, Nancey concludes, postmodern thought presents itself in a focus on holistic epistemic systems. It emphasizes *meaning* in philosophical language and the role of tradition/community in ethics (Van Huyssteen 1999:30).

⁴⁵ In describing existentialism, John Macquarrie understood it as a style of philosophizing – an *attitude* towards philosophy (Macquarrie 1978:16). Similar to this, Van Huyssteen suggests understanding postmodernist thought as an attitude towards knowledge. He explains that this approach seems to be appropriate, seeing that there are a variety of postmodern enterprises: postmodern philosophy, postmodern art, postmodern architecture, postmodern literature, postmodern politics, postmodern science, postmodern philosophy of science, postmodern theology, etc. (1999:29). Postmodernism refers to a wide array of cultural attitudes and not a specific approach contained within any particular domain.

⁴⁶ Nancey Murphy is Professor of Christian Philosophy at Fuller Theological Seminary. Her first book, *Theology in the Age of Scientific Reasoning*, won prizes from both the American Academy of Religion and the Templeton Foundation. Murphy is a member of the Board of Directors of the Center for Theology and the Natural Sciences and an ordained minister in the Church of the Brethren.

Van Huyssteen (1999:30) suggests that Calvin O. Schrag⁴⁷ complemented and enhanced Murphy's identification of the characteristics of postmodern thought in describing it as:

- The decentering of the subject as epistemic foundation;
- The recognition of the social and contextual resources of rationality;
- The embeddedness of power and desire within the claims of reason;
- The undecidability of meaning and the inscrutability of reference; and
- A celebration of radical historicism and pluralism.

Van Huyssteen (1999:30) observes that Jean-François Lyotard emphasised postmodernism's suspicion of meta-narratives. Van Huyssteen explains that meta-narratives function as overarching and totalising explanations that legitimise what people do and how they justify their choices. Postmodernist thought, on the other hand, resists meta-narratives because the focus is on the local and not the universal.

Van Huyssteen (1999:30) comments that Lyotard's point is reminiscent of Jacques Derrida's emphasis on the deconstructive characteristic of postmodern thought. Van Huyssteen makes this comment because of Derrida's argument that:

...no authoritative interpretation of any text is possible, and multiple readings of the text are not only possible, but also justified...this is extended to persons, events, and institutions (Van Huyssteen 1999:30).

Taking cognisance of all these suggestions, Van Huyssteen (1999:31) summarizes some of the challenges posed by postmodern thought as:

1. The rejection of epistemic assumptions;
2. Refuting methodological conventions;
3. Resisting knowledge claims;
4. Obscuring all versions of truth.

⁴⁷ Calvin O. Schrag is George Ade Distinguished Professor of Philosophy at Purdue University. He was a graduate of Yale and Harvard, a Fulbright Scholar for research at Heidelberg and Oxford, and a Guggenheim Fellow at Freiburg University.

However, Van Huyssteen (1999:31) acknowledges the postmodernists' greatest talent in their amazing ability to recognize and demolish meta-narratives. He writes that in this, postmodernists have been successful in reducing movements such as Marxism, Christianity, capitalism, liberal democracy, secular humanism, feminism and modern science to the same order and challenging them all as totalising meta-narratives that anticipate all questions and provide predetermined answers (1999:31). It is exactly this talent of postmodern thought that intrigues Van Huyssteen and leads him to say:

While it has become highly unlikely that anyone could ever demonstrate some final and generally accepted demarcation between modern and postmodern thought, it is the blurring of traditional boundaries and the seemingly cross-disciplinary character of much of constructive postmodern thought that will present the problem of rationality in theology and science with the most intriguing challenge (1999:31).

Van Huyssteen explains that postmodernists do not follow the modernists' tightly defined definitions of academic disciplines and in doing so reveal their rejection of another meta-narrative, namely the modernists' epistemological paradigm.

Van Huyssteen aligns himself with the view of Calvin O. Schrag⁴⁸, who follows Jean-François Lyotard argument for:

...seeing the postmodern as not only a strong reaction against modernity, but rather as part of the modern, and the project of refiguring rationality as an exploration of rationality *between* modernity and postmodernity (Van Huyssteen 1999:31).

Van Huyssteen concurs with Schrag when he writes that:

...it is important to view the postmodern challenge as an opportunity for an ongoing and relentless critical return to precisely the questions raised by modernity. From this perspective, postmodern thought is undoubtedly part of the

⁴⁸ Schrag (1992:17) writes: "Lyotard...duly informed us that the postmodern remains a part of the modern and that it is indeed modernism in its nascent state. It is thus that the discourse of modernity remains within the web of the discourse of postmodernity."

modern, and not only modern thought coming to its end. Seen this way, the modern and the postmodern are also unthinkable apart from one another, because the postmodern shows itself best in the to-and-fro movement between the modern and the postmodern, i.e., in the relentless interrogation of our foundationalist assumptions in all our reasoning strategies... (Van Huyssteen 1999:58-59).

Postmodern thought is a dynamic *self-critique* of modern thought. Van Huyssteen explains that it is the to-and-fro between modern and postmodern thought that keeps both alive, because without it:

...the postmodern challenge itself would only be a farewell to reason (1999:31).

As such, Van Huyssteen returns to prominent postmodern thinkers and argues that postmodernists, from Michel Foucault⁴⁹ to Richard Rorty,⁵⁰ couple the deconstruction of modern philosophy of science and its epistemic paradigm with a marked recognition of the social and pragmatic resources of rationality (1999:32). Here, human rationality is understood as having a variety of socio-political functions. This can be seen in Foucault's argument that:

...it is precisely tradition, and the progressivist perspective of uninterrupted continuity we project onto it, which preserves the power-relations that underlie all conventions and oppressions (Van Huyssteen 1999:32).

Furthermore, Van Huyssteen (1999:32) explains that in Foucault's view it is impossible for power to be exercised without knowledge and for knowledge not to generate power. Hence, postmodern thought should be seen as a critique of the power relations hidden in modern thought.

⁴⁹ Michel Foucault was a French philosopher and a post-structuralist. He focused on the history of ideas, epistemology, ethics and political philosophy

⁵⁰ Richard Rorty was an American philosopher who focused on epistemology, philosophy of language, philosophy of mind and ethics.

This links with one of the most distinguishing characteristics of postmodern thought, according to Van Huyssteen, namely the crisis of continuity. Van Huyssteen elaborated on this in *Duet or Duel* (1998), where he stated that postmodernists argue:

...our assertion of continuity is itself an invention of our need to control the destiny of our culture and society (1998a:19)

Some go as far as to question the possibility of tradition itself.

In *The Shaping of Rationality* (1999), Richard Rorty's neopragmatist version of postmodernism, as Van Huyssteen understands it, suggests that it is:

...a move from an epistemology where reality was supposedly pictured of mirrored via one's favourite representation, to a hermeneutics that would pragmatically aid us in living with plurality, change, and incommensurable discourse (Van Huyssteen 1999:33).

Taking cognisance of all these interpretations of postmodern thought, Van Huyssteen concludes that an understanding of postmodern thought as a critical return to modernist assumptions would assist in understanding this cultural attitude. His postfoundationalist approach to human rationality is then also such a return to modern assumptions, but fuses epistemology and hermeneutics together. As such, he asks:

...is there a way to talk about epistemology and rationality that would take very seriously the critical concerns of postmodernity without succumbing to its extremes? I believe there is, and this refigured notion of rationality is what I have called *postfoundationalist rationality*: a model of rationality...where a fusion of epistemological and hermeneutical concerns will enable a focused (thought fallibilist) quest for intelligibility through the epistemic skills of responsible, critical judgement and discernment (1999:33).

2.1 Postmodern Thought in Science

Van Huyssteen (1999:34) is convinced that the theory-ladenness of scientific reflection has been exposed by postmodern thought, especially in the work of post-positivists and

historicists such as Thomas S. Kuhn and even in post-Kuhnian philosophy of science. He concludes that the scientific process is now understood to be shaped by epistemic, as well as by non-epistemic values, rendering scientific reflection similar to all other modes of reflection (1999:34) and adds:

Postmodern science also reveals the hermeneutical dimension of science, by acknowledging that science itself is a cultural and social phenomenon, and also in the inevitable move from being objective spectators to being participants or agents in the very activities that were initially thought to be observed objectively (1999:35).

Van Huyssteen explains that in postmodern science there is a turn away from foundationalism to a holism in epistemology, as well as a move from modernism's individualism to the crucial role of community in the shaping of research (1999:35). Van Huyssteen (1999:35) refers in this regard to Stephen Toulmin:

...all postmodern science must start by reinserting humanity back into nature, and then integrate our understanding of humanity and nature with practice in view.

According to Van Huyssteen, Nancey Murphy similarly argues that it is the community of scientists who evaluate and choose which facts are taken seriously (1999:35). It is, however, not the majority who should bring changes to the accepted web of beliefs, but the community as a whole⁵¹ (1999:35). Van Huyssteen reminds us that postmodern philosophers of science also challenge the understanding of scientific progress held by modernists (1999:35). They unmask modernists' understanding of scientific progress as a meta-narrative and, in the same sentence, express a new respect for the local context of inquiry. As such, it is the local context that needs to be safeguarded from global interpretations of science, because:

⁵¹ Van Huyssteen comments (1999:35): "In Murphy's brand of postmodernism the conventions, the language games, in which one participates precede individual speech and in fact determine what can and cannot be said by individuals in that community. In this context both language and the search for knowledge, therefore, are practices, and as communal achievements, dependent directly on tradition."

...everyday praxis of science unfolds within a set of narrative enterprises that will give scientific endeavour its focused, local intelligibility (1999:35).

Subsequently, scientists are encouraged to resolve philosophical issues related to their own work, because it is they themselves who are embedded in the particular context they intend to render intelligible (1999:36). Van Huyssteen finds it surprising that it is exactly the objectivity of scientific reflection that postmodern philosophers of science are willing to relinquish (1999:36). This means, Van Huyssteen remarks, that interdisciplinary research involving the sciences has just become more difficult, because not even the scientific claims try and transcend the local context. However, as mentioned before, if postmodern thought is taken to be a critical return to modernist assumptions, a positive rendition of postmodernism in science is possible. Here Van Huyssteen refers to the work of Joseph Rouse.⁵²

According to Van Huyssteen (1999:44), Rouse suggests that Kuhn and post-Kuhnian philosophy of science are still imprisoned by what he calls *persistent narratives of modernity*. In his work, Rouse, attempts to reconstruct postmodern science in a way that transcends a narrow epistemologically conceived notion of theoretical scientific rationality by taking up some of the most important themes in Lyotardian postmodernism, namely:

- A rejection of any grand-narrative legitimation of the history of science as a history of rationality, progress, success, or of the search for truth;
- Any postmodern legitimation of scientific practices and beliefs is always going to be local and partial, undertaken within specific contexts and for specific purposes; and
- The idea that there is a *natural world* for natural science to be about, entirely distinct from the ways human beings as knowers and agents interact with it, must simply be abandoned (cf. Van Huyssteen 1999:44).

⁵² Joseph Rouse specialises in the philosophy of science, the history of 20th-century philosophy and interdisciplinary science studies.

Van Huyssteen explains that the aim of Rouse's revisioning and constructive rendition of postmodern science is to highlight the power relations involved in the practice of science itself and take them into account (1999:44). Furthermore, Rouse wants to draw attention to the effect these *applications of power* have on human life outside of the laboratory (1999:44). In this way Rouse breaks with the modernist distinctions that contrast *understanding* to *explanation*, and *hermeneutics* to *epistemology*. Rouse develops what he calls a *practical hermeneutics*, which blurs the distinction between the natural and human sciences. Rouse, in Van Huyssteen's view, opens the door to a more holistic form of interdisciplinary reflection (1999:45). Van Huyssteen suggests that Rouse's work helps in challenging modernist notions that contrast objective, empirical science to subjective, irrational religious faith (1999:45). Such a distinction is now largely discredited and Rouse suggests that:

...post-empiricist philosophies of science today in many ways more resemble the epistemology of interpretative human sciences than of their own empiricist predecessors (Van Huyssteen 1999:47).

This is an extremely important point for Van Huyssteen because it allows him to argue that:

...whether in the natural sciences, the human sciences, or in theology as a reflection on religious experience, we relate to our world(s) only through interpreted experience...all our knowledge, including direct experiential knowledge, must be expressed in language that always already embody theoretical presuppositions. What we interpret is the world we are embedded in, and which...exists independent of what we do or say, but which...is manifest to us only through our previously understood beliefs and values (1999:47).

All knowledge is gathered through the mediation of interpreted experience and is always influenced by pre-existing networks of interpretation.

Rouse's work points toward a fusion of epistemology and hermeneutics, and it is this fusion that Van Huyssteen appropriates for his discussion on rationality in the interdisciplinary conversation between theology and science in mind (Van Huyssteen

1999:47). Van Huyssteen (1999:48) observes that Rouse interprets this fusion as a nonfoundationalist move and takes up a second Lyotardian idea: the importance of narrative.

In Van Huyssteen's view, Rouse suggests that narrative has an epistemological significance because narrative is a way of comprehending the temporality and locatedness of one's own actions in their very enactment (1999:48). In science the narrative illuminates a constant tension between a coherent, shared understanding and divergent projects. Rouse explains that scientists firstly understand their work as a response to situations and emerging traditions presented by past research (Van Huyssteen 1999:48). However, secondly, they take their work to be very specific narrative anticipations of future developments:

...most scientists have a strong developing sense of what counts as adequate explanations, of when a claim is well confirmed, even if interpretations of their concepts are local rather than general (1999:48).

Van Huyssteen (1999:48) comments that it is plain to see that Rouse's understanding of scientific praxis is thoroughly postmodern, because the claim is that we all live within various ongoing stories embedded in our local contexts. He puts it well:

For Rouse...the intelligibility, significance, and justification of scientific knowledge stem from the fact that it already belongs to continually reconstructed narrative contexts supplied by the ongoing social practices and developing traditions of scientific research (1999:49).

Nonetheless, Van Huyssteen (1999:49) reminds us it is important to grasp that scientific knowledge, albeit local, has universal applicability, but this emerges from a very conscious and sophisticated process of standardisation⁵³ – not from some form of theoretical decontextualisation. It is important to note, though, that Rouse argues that this standardisation can only be achieved through an ongoing process of interdisciplinary, cross-contextual interpretation. Once again the universality of

⁵³ Van Huyssteen (1999:49) uses the metaphor of a tool that was designed for a very specific task, but has now become transformed into a tool with a more general purpose – that is standardisation.

scientific knowledge is an achievement rooted in local know-how (Van Huyssteen 1999:50). Van Huyssteen explains:

...the empirical character of scientific knowledge is the result of an irreducibly local construction of empirical reference rather than the discovery of abstract, universal laws that can be instantiated in any local situation (1999:50).

Taking all this into account, Van Huyssteen comments that Rouse could affirm Foucault's maxim that knowledge is power and power is knowledge, because science is revealed as a powerful force that shapes us as well as the world around us (1999:52). Van Huyssteen returns to Rouse's initial issue and clarifies that the laboratory is now a place where scientists make things happen and not just a space of observation. This implies that scientists are practitioners who become socialised into their skill, which would make science a contextually bounded skill (1999:52).

This leads Van Huyssteen to ask in what way a constructive form of postmodern thought can help us shape an interdisciplinary space between theology and science. He refers to H. P. P. Lötter:

- Postmodern thought makes us conscious of the meta-narratives that are uncritically used to justify the cultural authority of the natural sciences in the Western world;
- Instead of the attempted overall legitimation of science by meta-narratives such as rational development, success or progress, postmodern thought suggests that scientists themselves give a localised, partial legitimation of their own scientific practices within specific contexts and for particular purposes;
- Postmodern thought rejects any unified explanations of the *essential* nature of science: scientists themselves must reach a local consensus on the definition of their discipline or on the aims of their projects. Only then can the results of this reflection be standardised and translated to other contexts;

- Postmodern thought presents us also with the hermeneutical dimension of all scientific reflection: scientists share a narrative field in which their narratives compete for dominance;
- Postmodern thought presents scientists with an ethical and political imperative as well: it urges scientists to become aware of the voices of those who are voiceless in our culture, those who are often on the receiving end of our powerful scientific expertise;
- Postmodern thought necessarily collapses stark distinctions between the natural and human sciences and sets the stage for a creative fusion between hermeneutics and epistemology (Van Huyssteen 1999:55-56).

Postmodernists have changed the way scientists think about scientific reflection and the way they go about it. This being said, it is not only scientific reflection that has been influenced by this cultural attitude. The question now becomes: How has this postmodern cultural attitude influenced theological reflection?

2.2 Postmodern Thought in Theology

If postmodern thought is understood as a critical return to modernists' assumptions, then Van Huyssteen will phrase this as a *critical return to foundationalists' assumptions*. If this is the case, then it is necessary to identify what these assumptions entail. Van Huyssteen (1999:62) broadly defines foundationalism as:

...the view that *mediately* justified beliefs require epistemic support for their validity in *immediately* justified beliefs, or alternatively, as the view that systems of knowledge, in content of method, always require first principles.

In other words, foundationalists specify beforehand what they take to be the foundations/first principles by which they evaluate and justify beliefs. Foundationalism is a self-authenticating strategy that claims there is a privileged class of beliefs which are

intrinsically credible and therefore able to serve as criteria for the justification or termination of other beliefs (Van Huyssteen 1999:62). This kind of epistemic system emerges as positivist empiricism and scientific materialism in science and in theology it takes the form of biblical literalism, claims of unmediated religious experience, and a self-authenticating *positivism of revelation* (1999:62). This positivism of revelation essentially isolates theology from other reasoning strategies by denying the crucial role of interpreted religious experience (1999:63). If postmodern thought is a critical return to foundationalists' epistemic systems, then postmodern thought in theological reflection will certainly labour against the above-mentioned approaches to theological reflection.

Van Huyssteen (1999:63) explains that many theologians applauded the move away from modernist foundationalism, because the modern context was not at all hospitable to religion and theology. Postmodern thought seems brilliantly attractive and this means the danger of relativism in anti-/nonfoundationalism is easily overlooked (1999:63). Van Huyssteen makes this point, because he suggests that there are parallels to Rouse's characteristics of postmodern science in highly contextualised nonfoundational modes of theological reflection (1999:63). Furthermore, Van Huyssteen also observes links between Richard Rorty's nonfoundational neopragmatism and Rouse's view of science as a social practice (1999:66). Van Huyssteen explains that in nonfoundational neopragmatism, *truth* becomes:

...a function of the coherence of a particular social practice, a function of the historical standards of the inquirers involved in a particular language game (1999:66).

Referring to John E. Thiel, Van Huyssteen (1999:69) comments that theology to date has been mainly foundational in character, as the Augustinian definition of theology reveals – *faith seeking understanding*. This implies that *faith* in God's revelation comes before rational inquiry, making *faith* the first principle according to which further inquiry is evaluated and judged (1999:69). Still, Van Huyssteen argues that nonfoundationalism has begun to inform theological reflection through narrative and

postliberal theologies (1999:69). Just using the plural word *theologies* already illuminates the postmodern sensibilities in contemporary theological reflection.

Van Huyssteen (1999:70) explains that nonfoundational narrative theologies recognise that rationality itself has a narrative form and texture. He identifies prominent narrative theologians, namely Paul Ricoeur,⁵⁴ Hans Frei, George Lindbeck, Johann Baptist Metz, Ronald F. Thiemann,⁵⁵ Stanley Hauerwas and James McClendon (1999:70). Coming to grips with the academic projects of these theologians, Van Huyssteen finds Gary L. Comstock's suggestion helpful when he divides narrative theologians into *pure* and *impure* narrativists according to their presuppositions and methodology.

According to Van Huyssteen (1999:70), Comstock describes *pure* narrativists as nonfoundational, cultural-linguistic, later Wittgensteinian-inspired descriptivists. These theologians give narrative a special status in the construction of theological statements, while abstract reasoning, along with philosophical categories, does not form part of the essential task of theology. Frei, Lindbeck and Hauerwas are placed in this group. *Impure* narrativists are described as revisionist, hermeneutical, Gadamerian-inspired correlationists, who also grant narrative a central role in the communication of the Christian story, but deny narrative any exclusive theological function in theological theorising (1999:71). They claim that narrative does exhibit philosophical, historical and psychological claims which need to be evaluated in interdisciplinary conversation. David Tracy, Sallie McFague and Paul Ricoeur⁵⁶ are numbered among these narrativists.

Another important distinction between these two groups is displayed in their attempts to find a workable model for a postmodern theology. Van Huyssteen (1999:71) explains that:

⁵⁴ Paul Ricoeur was a French philosopher who worked on phenomenology, moral philosophy, political philosophy, philosophy of language and historiography.

⁵⁵ Ronald F. Thiemann is the Benjamin Bussey Professor of Theology at Harvard Divinity School. His research focuses on the role of religion in public life.

⁵⁶ In Van Huyssteen's most recent work *In Search of Self*, Paul Ricoeur's connection between narrative, *the self* and *embodiment* plays a central role. Van Huyssteen (2011:5) reflects as follows on Ricoeur: "...personal identity, or 'self,' is both articulated *and* constructed solely through the temporal and relational dimensions of embodied human existence. On this view, self-identity rises out of our narrative identities, and in many narratives the self as a lived body seeks its identity for the duration of an entire lifetime." What is interesting to note here is that *embodiment* becomes a very prominent theme in Van Huyssteen's work, especially after his Gifford Lectures in 2004.

...*pure* narrative theologians very consciously want to construct a postmodern paradigm for theology, while revisionists creatively revise the paradigms of language, reason, and practice of the liberal tradition in diverse attempts to justify the cognitive claims of theological reflection.

In other words, revisionists do not completely break with previous models, but rather try to build on the positive aspects of existing models.

Furthermore, Van Huyssteen (1999:71) explains that narrative theology links with postmodern science in its rejection of global legitimation. As such, all narrative theologians agree that theological descriptions should be in accordance with the terms of Scripture's own narratives and biographies (1999:71). No alien categories should be introduced in theological description. Yet it is important, according to Van Huyssteen, to point out that narrative theologians do not reject critical thinking, but are suspicious of speculative reason because they are constructing a radically contextual Christian theology (1999:71). They agree that theological reasoning should not step outside of the boundaries of the confessing community (church), where the biblical narrative determines all that can be said and done in theological reflection. Van Huyssteen elaborates on this:

...any adequate explanation of the Christian story should be arrived at only in terms of the internal rules and logic of the biblical language game, and not in terms of 'imported' philosophical theories (1999:71).

Van Huyssteen is of the opinion that this stance brings theological reasoning to a complete halt:

...once it has narratively described, narratively explained, and narratively justified the Christian faith (1999:72).

This leads Van Huyssteen to argue that while foundationalism and fideism go together easily, nonfoundationalism seems equally comfortable with a fideistic outcome (1999:73).

As an example of this, Van Huyssteen (1999:73) points out that Ronald F. Thiemann argues for a break from all foundationalism, as well as constructing a nonfoundational *public* theology leaving esoteric tendencies behind. Thiemann suggests that theology is a descriptive activity; this he places in contrast to an explanatory activity, which, according to Thiemann, implies a foundational epistemology. Van Huyssteen comments:

Thiemann...wants to show that a theology shaped by the biblical narratives, and grounded in the practice of the Christian community, can provide resources to enable people of faith to regain a public voice in our pluralistic culture... (1999:73).

However, according to Van Huyssteen (1999:74), the nature of Thiemann's *public* theology is not revealed as an attempt to identify the interdisciplinary voice or status of theological reflection. Neither is it an attempt to determine the extent to which theological reflection might share important resources of rationality with other modes of reflection (1999:74). Thiemann argues that theological reflection should be based in the particularities of the Christian faith and genuinely attempt to address issues of public significance. This to him is a *public* theology – a Christian theology concerned with public issues (1999:74).⁵⁷ Van Huyssteen explains that Thiemann underpins this stance by rejecting apologetics and states that:

...what is lost is the *bite* of the Christian witness when concepts and theories foreign to the Christian faith are adopted (1999:74).

Fortunately Thiemann warns against taking this point too far. He concedes that theology can become obsessed with the characteristic language and patterns of the Christian narrative and practice, failing to engage the public realm in an effective and

⁵⁷ Thiemann (1991: 21-22) writes: "Public theology is faith seeking to understand the relation between Christian convictions and the broader social and cultural context within which the Christian community lives." As such, "...the goal is to identify the particular places where Christian convictions intersect the practices that characterize contemporary public life." Therefore, "Because public theology begins from the standpoint of faith, the theologian launches his or her inquiry with the conviction that those questions have been answered positively through the revelation of God in Jesus Christ. The theologian thus enters the public realm with the confidence, born of faith, that Christian convictions do have relevance for public life."

responsible way (Van Huyssteen 1999:74). When this happens, theologians either avoid public discourse in order to preserve what they see as the uniqueness of Christian life, or they bulldoze their way into public discourse with a single-mindedness that shows no respect for the pluralistic tradition of democratic polity (1999:74).

This said, Van Huyssteen (1999:74) recognises that the criteria for an appropriate public theology are still the focus of a lively debate in theology. According to Van Huyssteen (1999:74), Thiemann disagrees with David Tracy's proposal for a theology that addresses the three *publics*, namely society, academy and the church. Van Huyssteen explains that Thiemann rejects Tracy's suggestion as foundational and proposes that theological reflection become consciously local and contextual. Thiemann suggests that theological reflection should try and develop a detailed understanding of social, cultural and moral issues concretely within the Christian community and only then aim toward broader interpretations and abstract analyses (Van Huyssteen 1999:74). To Van Huyssteen this seems to miss the idea of what a public theology should be:

A nonfoundational public theology for Thiemann thus begins from the standpoint of faith, and the theologian launches his or her inquiry with the conviction that its most crucial questions have been answered positively through the revelation of God in Jesus Christ (1999:75).

This implies that theology has its own protected form of rationality. Yet it is not the faith commitment itself that bothers Van Huyssteen, but the conceptual structure within which it is held that emerges as a protective, fideistic strategy (1999:75).⁵⁸ In this view,

⁵⁸ Thiemann (1985:74-75) writes: "Since a nonfoundational theology is concerned with justification internal to the Christian framework, its *primary* interests are neither epistemological nor apologetic. In the process of seeking justification it will surely on occasion need to engage in conversation with positions external to the Christian faith. Though the Christian faith has its own internal integrity, it does not exist in a vacuum...Thus on certain occasions or when addressing particular audiences the theologian might need to show the analogical connections between Christian and non-Christian uses of particular concepts or beliefs, but that is always a logically secondary and *ad hoc* procedure...Consequently nonfoundational theology seeks its criteria of judgment within the first-order language of church practice."

the subjective faith commitment is assumed and no attempt is made to explain why and how such a commitment is made in the first place⁵⁹ (1999:76).

This is an important point in Van Huyssteen's work. One needs to make a distinction between the faith commitment and the conceptual structure (epistemic system) in which one holds the faith commitment. Van Huyssteen argues that we relate to our world epistemically through interpreted and traditionalised experience, implying that theologians only have their faith commitments in terms of the beliefs (epistemic system) in which they hold them (1999:76). If, however, theologians collapse their faith commitments into the epistemic structure in which they hold them, epistemologically this turns into fideistic commitment. What follows is that religious and theological beliefs turn into sophisticated, crypto-foundationalist epistemic systems (1999:76). In other words, the issue here is not *what* one believes, but *how* one comes to and holds onto the belief. It is the epistemic system in which the faith commitment is held that is the point of discussion in Van Huyssteen's postfoundational approach to rationality.

Coming back to Thiemann, Van Huyssteen (1999:77) argues that Thiemann's nonfoundational theology reveals a highly inadequate and reductionist notion of rationality, which finally flows into a *many rationalities* view that is common to most forms of nonfoundational theology. In spite of its intent to be understood as a *public* theology, it actually isolates the rationality of theological reflection from the way human rationality functions in other domains of knowledge. Furthermore, Van Huyssteen remarks that this kind of theology is reminiscent of later Wittgensteinian fideism, which argues that religious beliefs have no need for explanatory support (1999:77). In this case religious beliefs are seen as part of a groundless language game and the truth of these beliefs is discovered by means of criteria internal to the language game itself.

⁵⁹ Van Huyssteen (1999:76) comments: "It is interesting that Thiemann has accepted as his own the Barthian view that theology should be located squarely within the Christian community and begin its reflection with the *objective credo* of the Christian church, its confession that God is known only in Jesus Christ. For both Barth and Thiemann, theology is a hermeneutical task that begins with a text which has to be interpreted in the context of a living tradition. And within this context contemporary philosophical and cultural resources can be used, but only in a way that allows for the distinctive logic of the Christian gospel to guide and shape that use. On this view, all hope of finding a cross-disciplinary location for theological reflection as a plausible reasoning strategy is lost forever."

For Van Huyssteen (1999:77) the most disturbing aspect of narrative nonfoundational theology is that its epistemic system begins to function in a crypto-foundational way. In response to this Van Huyssteen makes it extremely clear that theologians would have to realise:

1. The epistemological and hermeneutical implications of the fact that biblical narratives are already interpretations, and;
2. That so-called biblical concepts in themselves are mini-theories that reveal the complex way in which these texts have been received, experienced and interpreted through the long history of the Christian tradition (1999:77).

Van Huyssteen (1999:77) cites Janet Martin Soskice who remarks that: "...to narrate is to explain..." Van Huyssteen explains that this exposes the naivety of a division between narrative and explanatory forms of theology and illuminates the danger of such an illusion (1999:77). A *pure* form of nonfoundational theology displays sectarian tendencies, because a meaningful Christian narrative is achieved at the cost of detaching it from any meaningful dialogue with other Christians, other scientific and non-scientific modes of reflection and with the secular world (cf. 1999:78). As such, this approach to theology leads to relativism and epistemic fideism, which would be fatal for the cognitive claims of interdisciplinary theological reflection. Van Huyssteen states that nonfoundational theology is:

...rather easily revealed as a first-rate isolationist move, a protective strategy in which the belief, worship, and the practice of the Christian tradition is seen as sufficient to internally justify its own theological claims (1999:78).

Van Huyssteen finds Mikael Stenmark's⁶⁰ discussion on the inconsistency of radical nonfoundational contextualism eloquent as Stenmark argues, that since there is no context-independent standard of rationality for nonfoundationalists, what is regarded as rational and irrational can only be determined internally (1999:79). In this respect Van

⁶⁰ Mikael Stenmark has been Dean of the Faculty of Theology at Uppsala University, Sweden since 2008, as well as Professor of Philosophy of Religion at the Department of Theology. He has published papers in the philosophy of religion, the philosophy of science and environmental ethics, and on science-religion issues.

Huyssteen refers to Stenmark, who shows that radical nonfoundational contextualists argue that:

1. Rationality is always internal to some practice;
2. The belief of a specific practice cannot be used intercontextually to assess another practices; and
3. Because there are no standards of rationality that are applicable across all practices, the rationality of a practice may not be assessed from outside the practice itself (1999:79).

This, Van Huyssteen explains, leads to a stance where each context has its own rationality and truth, meanwhile denying any universal truth (1999:80). In other words, nonfoundational contextualism falls prey to relativism which never escapes its own context and remains true only to its own view of the world (1999:80). Furthermore, no cross-contextual framework is pursued that could evaluate one framework as more rational than another. Theologians using this approach to theology employs an epistemic system that claims sovereignty and only allows agents operating within the context to police the protective epistemic boundaries (cf. 1999:81).

To illustrate this, Van Huyssteen discusses *Theology and Social Theory* (1990) by John Milbank.⁶¹ In Van Huyssteen's opinion this book represents a serious epistemic move towards esotericism and sectarian rationality. Van Huyssteen writes:

...behind the impressive grasp of contemporary postmodern thought, the resulting rejection of *secular reason*, and finally the elevation of Christian faith and theology as the only adequate social and intellectual project for our postmodern times, is hidden a massive and spectacular fideist claim – a protective strategy so effective, and of such enormity, that it catapults the Christian faith out of its context in the real world into complete and splendid isolation (Van Huyssteen 1999:81).

⁶¹ Alasdair John Milbank is a Christian theologian and the Professor of Religion, Politics and Ethics at the University of Nottingham. He is associated with the Radical Orthodoxy movement especially because of his publication *Theology and Social Theory* (1990).

According to Van Huyssteen (1999:81), in this book, Milbank argues for seeing theology as the *queen of the sciences*. Milbank does this by exposing scientific social theories as *theologies* or *anti-theologies* in disguise and then asserts theology's sovereignty (1999:81). In short, Milbank suggests that theology should, once again, be understood as a meta-discourse. Van Huyssteen interprets this approach as a disguised attempt at understanding theology as a *theory of everything* (1999:81). He illuminates the assumptions behind this approach as:

1. A tacit acceptance of modernity's notions of the superiority of natural science's rationality;
2. The assumption that the rationality of theological reflection therefore has to be retrieved only through a battle with the social sciences; and
3. An argument that theology has to turn into social science to attain some form of intellectual credibility (1999:81).

Van Huyssteen (1999:81) suggests that Milbank's retreat to a *meta-narratives* reveals traits of epistemological positivism and foundationalism. Furthermore, it goes against what Van Huyssteen suggests the Christian faith should be about:

...a positive, constructive, and even corrective engagement with the culture of its day (1999:82).

Milbank's approach does not argue for theology in a critical encounter with contemporary culture:

...but is confessed over against secular culture in a retelling of the Christian narrative for its persuasive power (Van Huyssteen 1999:82).

Hence, Van Huyssteen's critique is similar to Bartley's critique against Barth:

The successful retreat to a sectarian form of rationality will be won only at the price of never again being able to criticize others who think differently because they inhabit different epistemic communities (1999:82).

In contrast, Van Huyssteen (1999:86) suggests that the choice between foundationalism and nonfoundationalism is a false one based on the dichotomy of an outdated epistemological dilemma. He argues that a postfoundationalist shift to a fallibilist epistemology ultimately avoids the alleged necessity of having to choose only between foundationalism and nonfoundationalism (1999:86).

This shift, however, will have some implications for theological methodology, according to Van Huyssteen:

1. It is no longer necessary to hold that the traditional project of theological prolegomena is always ancillary to theology, functioning (as in *fundamental* theology) as a foundation to be dealt with prior to theological reflection and then always assumed in what follows;
2. In postfoundationalist theology the epistemic link between theology and other reasoning strategies will be left open and flexible because theological reflection will now necessarily be shaped by the fact that the epistemic boundaries between theology and other modes of reflection have now become fluid (1999:87).

Van Huyssteen (1999:88) shows that Nancey Murphy also argues that contemporary philosophy of science has become an important methodological link in the theology and science debate. She suggests that the cognitive aspects of religion may not be overlooked by theologians and philosophers of religion. As such, philosophy of science emerges as an indispensable discipline in this conversation. However, in contrast to Van Huyssteen, Murphy argues that theology, as reflection on religious experience, could actually be understood as a scientific research project (Van Huyssteen 1999:88). Van Huyssteen, however, suggests that her project still does not transcend fideistic tendencies.

Van Huyssteen (1999:89) explains that for Murphy holism in epistemology goes together with a theory of language which recognises that the meaning of language is tied directly with its use. In other words, there are no foundations for language other than the conventions of the community using it (1999:89). Language relates to its context, both to the system of linguistic conventions that govern its use and to the social context that provide meaning to it (1999:89). On this Van Huyssteen comments:

This move includes her attempt to move beyond referential theories in philosophy of language, which turn out to be equivalent of foundationalism in epistemology (1999:89).

For this reason, in Murphy's nonfoundational view, religious beliefs, as expressions of religious experience, cannot be appreciated apart from their context (Van Huyssteen 1999:89). That is to say, religious beliefs cannot be understood or evaluated in abstraction from the practices of specific communities (1999:89).

Nevertheless, Van Huyssteen is sceptical about this approach and doubts if this nonfoundational philosophical theology will be more successful than Thiemann's in its claim to be interdisciplinary and public (1999:90).

Van Huyssteen discusses *Theology in the Age of Scientific Reasoning* (1990) in which, in his view, Murphy attempts to demonstrate that theological reflection is quite similar to scientific modes of reflection (Van Huyssteen 1999:90). Murphy goes even further by claiming that theological reflection is potentially methodologically indistinguishable from scientific reflection (Van Huyssteen 1999:90). Van Huyssteen (1999:90) points out that, by drawing on new historicist accounts of the history of science and by relying on the work of Imre Lakatos,⁶² Murphy opts for a nonfoundational approach to theology that is guided by philosophy of science.

Van Huyssteen had already discussed Murphy's use of Lakatos in an earlier article "Is the Postmodernist Always a Postfoundationalist? Nancey Murphy's Lakatosian Model for Theology" (1993), which is also included in a compilation of his articles published as *Essays in Postfoundationalist Theology* (1997).

Murphy explains Lakatos's research programme:

A research program has the following structure: It includes a core theory that unifies the program by providing a general view of the nature of the entities being investigated. The core is surrounded by a *protective belt of auxiliary hypotheses*.

⁶² Imre Lakatos was a Hungarian philosopher of mathematics and science. "Influenced by both Popper and Kuhn, Lakatos argued that science should be understood in terms of competing research programs..." (Van Huyssteen 2003:758).

These are lower-level theories, which both define and support the core theory. Also included here are theories of instrumentation and statements of initial conditions. Assorted data support the auxiliary hypotheses (Murphy & Ellis 1996:11)

In other words, research traditions have a distinguishing core and auxiliaries that can adapt.

Furthermore, Murphy states that Lakatos distinguished between progressive and degenerating research programmes (Van Huyssteen 1997:80). Additionally, Lakatos demarcates science by identifying scientific inquiry as a sequence of theories whose empirical content increases as the auxiliary hypotheses are modified to avoid falsification (Van Huyssteen 1997:81). Lakatos also distinguishes between negative and positive heuristics in *mature* science, where a negative heuristic treats the core of the research programme as irrefutable. A negative heuristic tries to avoid falsification of the core. A positive heuristic, on the other hand, treats the core in a way that allows for future development of such a research programme.

With this in mind, Lakatos formulates two responses; first regarding the demarcation of science, and secondly its justification. Van Huyssteen explains:

- We have *science* whenever there is a series of theories whose empirical content increases as the auxiliary hypotheses are modified to avoid falsification; and we have *mature science* whenever these content-increasing modifications are in accordance with a preconceived plan;
- There are objective reasons for choosing one programme over another when the former has a more progressive record than its rival, i.e. a greater demonstrated ability to anticipate novel facts (1997:81).⁶³

⁶³ Murphy (Murphy & Ellis 1996:227), however, points to an important distinction in Lakatos's approach: "...there are several points of refinement to be mentioned. The first is that *prediction of novel* facts can also mean *retrodictio*n of facts that are already known but would have been considered irrelevant or impossible in light of the previous versions of the program."

In *The Shaping of Rationality* (1999) Van Huyssteen expands on this discussion. He explains that Murphy appropriates this Lakatosian model for use in theological reflection (1999:91).⁶⁴ Murphy constructs the core of her own nonfoundational theology, starting with a minimal doctrine of God, including the trinitarian nature of God, God's holiness and God's revelation in Jesus Christ. Coming to the auxiliary theories, Murphy constructs criteria according to a Lakatosian model and sets out to illustrate what might be understood as *theological data* within such an approach (Van Huyssteen 1999:92). He comments that Murphy's project of defining what we may take as *theological data* is one of the most central issues in philosophical theology today. Van Huyssteen writes:

...theologians, who want to approach theological methodology from an anti-authoritarian and postfoundational viewpoint, precisely in our scientific age, will have to select from the manifold of interpreted religious experience those elements that plausibly claim to yield some form of knowledge of God (1999:92).

Therefore, Van Huyssteen (1999:92) states that the theologian must not only have access to religious experience and what is revealed through interpreted experience, but should also formulate criteria for a proper means of distinguishing valid and reliable knowledge claims for theology.

Murphy, according to Van Huyssteen, finds the idea of *communal discernment* to be helpful and attempts:

...to find a way of distinguishing between theological data that have bearing on the nature of God, and those that bear only on the psychology or history of religion (1999:92).

Van Huyssteen lists Murphy's criteria for distinguishing theological data as follows:

1. It must be in agreement with the apostolic witness;
2. It must produce a Christlike character in those affected – freedom from sin and manifestation of the fruits of the Spirit; and

⁶⁴ Murphy (1996:103) appropriates Lakatos's research program for use in theological reflection by arguing that there is a parallel between the methodologies of Lakatos and Alasdair MacIntyre.

3. It must produce unity in the community based on prayerful discussion (1999:94).

Van Huyssteen finds it problematic that the criteria Murphy argues for seem to have their epistemic roots in a prior conviction, which she does not sufficiently account for (1999:94). Van Huyssteen explains that it is exactly the status of *apostolic witness* and *the authority of Christ* that is in question (1999:94). Therefore, these cannot be used as criteria without arguing for them convincingly. In fact, theologians need specific criteria for evaluating these commitments. Van Huyssteen remarks that it would seem that Murphy is guided by fideistic epistemic values, even though she argues for a nonfoundationalist epistemic system (1999:94). Van Huyssteen adds that, arguing for religious experience as data for theology:

...involves not only the reliability of these communal discernments, but the need to justify conceptualizing experience in theistic terms in the first place (1999:96).⁶⁵

The most serious problem with Murphy's nonfoundationalist, Lakatosian theological methodology, according to Van Huyssteen, lies in the way she places postmodern thought in radical opposition to modern thought (1999:97).⁶⁶ Van Huyssteen (1999:97) explains that Murphy understands postmodern theologians to be those who adhere to postmodern presuppositions and have removed themselves from the modern conceptual space.

By adopting this stance, Murphy misses the most important trait of postmodern thought – its relentless critique of foundationalist assumptions (Van Huyssteen 1999:98). Still, according to Van Huyssteen (1999:100), Murphy does disarm modern foundationalists. Unfortunately, whilst doing so, she allocates the presupposed existence of God as the core of her theological research programme, but then adds that this core will always

⁶⁵ Van Huyssteen comments that objectivity in Murphy's view (Van Huyssteen 1999:96): "...simply means that others under similar circumstances, and with the same experience, will see the same thing."

⁶⁶ Murphy (1996:86-87) writes: "My more nuanced claim is that modern thought has been structured by *debates* over knowledge, language, and metaphysics, in which position and counter-position share certain underlying assumptions about the nature of justification, meaning, and the relation between parts and wholes. It is the recent critique and displacement of these underlying assumptions that justifies the claims that modern thought is being supplanted by new, postmodern ways of thinking."

contain reference to God. For Van Huyssteen, this displays at least a weak form of epistemological foundationalism (cf. 1999:100).

Van Huyssteen (1999:104) observes that in her later work *On the Moral Nature of the Universe* (1996), written by Murphy and the South African cosmologist, George Ellis, this foundationalism leads to an argument that theology should be seen as the *queen of the sciences*.⁶⁷ As such, theology is understood as a meta-narrative that totalises and subsumes all disciplines under a unifying worldview (1999:104).⁶⁸ At this privileged position theology is untouchable and protected from other modes of reflection (1999:104)⁶⁹

In conclusion, nonfoundationalism, as one of postmodernists' most important resources, breaks with foundational epistemic values, but then only replaces it with new epistemic values which lead back to an uncritical, fideistic crypto-foundationalism. Suffice it to say that nonfoundationalism claims: there are no universal truths and that is the only universal truth. For this reason Van Huyssteen argues for epistemic values that will be able to transcend modern assumptions, as well as the relativism and crypto-foundationalism of postmodern presuppositions. A postfoundationalist approach, as Van Huyssteen explains it, will still pursue the truth, but this time with the help of the postmodernists' critical eye. Postfoundationalists understand postmodern thought, positively and constructively, as part of the modern project, keeping modern assumptions in place and working towards a more contextual understanding of rationality. A postfoundationalist notion of rationality will show that it is rational beliefs

⁶⁷ Murphy (Murphy & Ellis 1996:219-220) explains this position: "Our claim is that while each of the disciplines considered here is, for many purposes, complete in itself, there arise questions or problems (*boundary questions*) that can only be answered by moving to another level of discourse. Modern thinkers emphasized the search downward in the hierarchy of the sciences (reductionism). We emphasize the search upward. The highest level of understanding is the theological. We claim (1) that certain aspects of reality require the context of a vision of the purpose of the whole in order to be fully intelligible, and (2) that the context of the whole, most adequately addressed theologically, provides an intellectual *bridge* whereby the natural sciences and the human science (including ethics) mutually illumine one other."

⁶⁸ Murphy (Murphy & Ellis 1996:1) writes: "...the time has come to attempt the reconstruction of a unified worldview - one that relates human life to both the natural world and to nature's transcendent ground."

⁶⁹ Murphy (Murphy & Ellis 1996:5) writes: "...*boundary questions* require a different kind of account than a purely scientific approach provides." Van Huyssteen agrees with Murphy that theological reflection requires a different approach than a purely scientific approach can provide, but goes even further than Murphy when he argues that the methodologies of theological and scientific reflection should also be different.

that are relative, not rationality itself. More than this, it will show that all modes of reflection share the common resources of human rationality, which could provide us with a certainty of faith that would *keep us grounded* and rescue us from:

...the unbearable lightness of being postmodern (1998a:25).

Chapter Three – A Postfoundationalist Approach

The purpose of Van Huyssteen's postfoundationalist approach to human rationality is to facilitate interdisciplinary conversation and reflection. Although Van Huyssteen developed this approach to facilitate interdisciplinary reflection in theology and science, it can facilitate any interdisciplinary conversation or reflection. Furthermore, in the process of developing this postfoundationalist approach to rationality, Van Huyssteen found an appropriate and feasible way of facilitating the conversation between theology and science. Van Huyssteen discovered that a postfoundationalist notion of rationality provides a practical, realistic and reasonable way of understanding human rationality philosophically, neurologically and biologically. This implies that a postfoundationalist approach to human rationality not only serves to facilitate interdisciplinary conversation between theology and science, but also provides an adequate model of human rationality by taking biological and cultural evolution into account.

A postfoundationalist approach to rationality, however, also holds some implications for the way in which theological reflection is done. Van Huyssteen argues that interdisciplinary reflection in theology and science is possible only if theological reflection is done in a credible way. He explains that postmodernists challenge the intellectual coma of fideism and foundationalism (Van Huyssteen 1999:111). In contrast to postmodern relativism religious beliefs are normally held to be true and are universal in intent (1999:111). Van Huyssteen explains that he approaches this challenge from an epistemological angle and asks:

What exactly do our religious beliefs explain, what is the epistemic status of these explanations, and how do the nature and status of these explanations compare to the theories that scientists use to explain the world? (1999:111).

Furthermore, seeing that religious and theological truth claims are almost always inextricably linked to communities, Van Huyssteen asks if there is a way beyond communal consensus to justify the cognitive claims of religious beliefs (Van Huyssteen

1999:112). Therefore, he asks whether these beliefs are always merely expressions of our own deepest personal convictions (1999:112). Moreover, one of Van Huyssteen's main concerns is whether Christian theology, as a disciplined reflection on religious experience, can really claim to be part of the public, interdisciplinary conversation (cf. 1999:112)? Can theological reflection become part of the public conversation without retreating into an esoteric world of private, insular knowledge claims?

Attempting to answer these questions, Van Huyssteen approaches them from an epistemological angle and identifies the heart of the issue by asking:

...how the epistemic and nonepistemic values that shape the rationality of theological reflection will be similar to or different from those that shape the rationality of other modes of reflection – especially the rationality of the natural sciences, which have acquired such a normative and paradigmatic status in our culture (1999:112).

Van Huyssteen proposes that philosophers of science be consulted on this question (1999:112). As a discipline concerned with the problem of rationality, the philosophy of science has earned a place as an important link in the ongoing interdisciplinary debate about the nature and status of theological knowledge.

A postfoundationalist approach, according to Van Huyssteen, is a positive appropriation of postmodernism (1999:112). Therefore, it is important to have a clear understanding of what postmodern thought encompasses. The previous chapter discussed Van Huyssteen's understanding of postmodern thought; however, two aspects of this attitude to culture play a big part in the development of a postfoundationalist approach. The first is the postmodern rejection of all forms of epistemological foundationalism, and the second is a rejection of:

...those ubiquitous, accompanying metanarratives that so readily claim to sanction and legitimize all our knowledge, our judgements, our decisions, and our actions (1999:113).

Taking this into account, Van Huyssteen proposes a postfoundationalist approach to enable one to fully acknowledge:

1. the role of context;
2. the epistemically crucial role of interpreted experience;
3. the way that tradition shapes the epistemic and nonepistemic values that inform our reflection about God and what some of us believe to be God's presence in this world; and
4. the need to point creatively beyond the confines of the local community, group, or culture toward a plausible form of cross-contextual and interdisciplinary conversation (1999:113).

Hence, Van Huyssteen argues for a postfoundationalist approach as a viable third option beyond foundationalism and nonfoundationalism. Van Huyssteen explains that a postfoundationalist approach:

...should free us to approach our cross-disciplinary conversation with our strong beliefs and even prejudices intact, and while acknowledging these strong commitments, to identify at the same time the shared resources of human rationality in different modes of reflection (1999:113).

Furthermore, he suggests that:

...a truly postfoundational move beyond objectivism and relativism is to rediscover the embeddedness of our rational reflection in the context of living, evolving and developing traditions (1999:113).

Concerning theology and science, Van Huyssteen argues for *intelligibility* as the most characteristic epistemic value that shapes the rationality of these two reasoning strategies (1999:115). Van Huyssteen explains that, along with *intelligibility*, both these reasoning strategies represent a quest for *optimal understanding*. Taking the epistemic value (intelligibility) and quest (optimal understanding) into consideration, along with

the contextuality of rationality, Van Huyssteen argues for a theory of rationality that encompasses both *experiential adequacy* and *theoretical adequacy* in theological reflection. He explains:

...it would become clear that religious experience and the explanatory commitments implied by this specific kind of experience are not only closely interrelated, but are also crucial epistemic factors which very much determine the values that shape rationality in theological reflection (1999:115).

Van Huyssteen proposes that if theologians and scientists strive to explain better in order to understand better, then they should first look at the issue of rationality before moving to their respective explanations (1999:117). The issue of rationality should be the prime focus in trying to relate theology and science in a meaningful way (1999:117).

Hence, the main concern of this chapter is Van Huyssteen's postfoundationalist approach to rationality. Before discussing the convictions and beliefs of theologians and scientists, it is necessary to discuss their commitments to the epistemic systems in which they hold these convictions and beliefs. But it is necessary to discuss the way in which one believes, before one can discuss the content of one's beliefs. Although beliefs and the epistemic systems in which one holds them are intertwined, it is helpful to focus on one aspect/dimension of this relationship at a time.

Van Huyssteen's postfoundationalist approach to rationality is not a rule-governed epistemic system and can therefore not be explained step by step. It is a network of different ideas and theories that fuse together to form an attitude and approach to knowledge. It could be characterised as an *easy complexity*.⁷⁰ It is like driving a motor vehicle. Keeping the vehicle running smoothly in the right direction, while navigating one's way through the traffic, listening to the radio, talking to a friend and admiring the scenery, is a complex action. There are many aspects to concentrate on, but somehow it becomes one fused action we do every day without really thinking about it. It becomes

⁷⁰ This description does not refer to *complexity theory* (see Cilliers, P. 1998. *Complexity and Postmodernism: Understanding Complex Systems*, London: Routledge).

second nature. It becomes an easy action. In a similar way, a postfoundationalist approach to rationality is complex, but easy. It is not simple, but it is easy. All the complexities flow together into a seamless whole. Hence, it would be easier to discuss the complexities of a postfoundationalist approach to rationality separately.

A paramount feature of Van Huyssteen's postfoundationalist approach is that it does not deal with abstract thoughts or beliefs, but with rational people or rational agents, as it were (2006:10). Van Huyssteen explains that humans, as embodied minds, are always embedded in a particular context. Humans engage with reality by constructing informed, responsible convictions in a specific personal, social and disciplinary milieu (2006:10). In his Gifford Lectures (2004), *Alone in the world?* (2006), Van Huyssteen goes as far as to regard the complex, embodied rationality of humans as a definitive characteristic of the species (2006:11). Furthermore, Van Huyssteen argues that the postfoundationalist understands human cognition to be rooted in human biology (2006:11). In order to understand the embodied mind that is characteristic of humans, Van Huyssteen draws on the reflections of *evolutionary epistemologists*.

Moreover, the postfoundationalist employs the epistemic values that humans use in their day-to-day lives. Van Huyssteen identifies these values as intelligibility, discernment, responsible judgement and deliberation, and he fuses these values with the epistemic values argued for under *critical realism*, namely reality depiction, problem solving and progressiveness. Van Huyssteen explains this move:

It is only as individual human beings, living with other human beings in concrete situations, contexts and traditions, that we can claim some form of rationality (2006:11).

In developing his postfoundationalist approach, Van Huyssteen once again engages philosophers of science in his pursuit of a credible methodology for theology. In conversation with the works of Nicholas Rescher,⁷¹ Calvin O. Schrag, Mikael Stenmark

⁷¹ Nicholas Rescher is an American philosopher at the University of Pittsburgh.

and Harold Brown,⁷² Van Huyssteen moulds a comprehensive epistemic system that lends itself to interdisciplinary conversation. Van Huyssteen also identifies theology and science as the two dominant influences in Western culture (1998a:40) and therefore focuses on the interdisciplinary conversation between them. It is important to note that Van Huyssteen does not only argue for a postfoundationalist approach to interdisciplinarity. He argues that a postfoundationalist approach illuminates the need for such a conversation. Moreover, he argues that the epistemic values adhered to in a postfoundationalist approach are consistent with the workings of the embodied minds of *Homo sapiens*.

Furthermore, Van Huyssteen remarks that because postfoundationalism is in constant conversation with modern and postmodern thought, it is not to be understood in fixed terms (1999:117). The postfoundationalist adopts a particular *attitude* towards the epistemic values that shape human reflection. It is a dynamic approach without fixed rules. It is in constant conversation with all reasoning strategies regarding the epistemic values it employs. It is, however, not only an evaluating activity, but generates knowledge as well. A postfoundationalist approach, as Van Huyssteen explains it, intends to facilitate interdisciplinary conversation by reinterpreting knowledge claims within different contexts, traditions and disciplines. It is a re-appropriation of responses to reality.

3.1 Shared Resources of Rationality

When referring to the epistemic values that theologians, philosophers and scientists employ as embodied minds, Van Huyssteen uses the phrase *the shared resources of human rationality*. In doing so, he alludes to the fact that we share epistemic values in our pursuit of optimal understanding. Thus, because it is these values that shape human rationality, clarity is needed on these values if optimal understanding is to be achieved.

Rationality, then, is used to form and construct beliefs about reality. This is true for all humans, as well as all modes of human reflection. Van Huyssteen states that:

⁷² Harold I. Brown is Professor of Philosophy at the Northern Illinois University DeKalb.

...the nature of human rationality is to be found in the way that we use our intelligence to pursue particular epistemic goals and values, of which intelligibility may be the most important (1999:114).

He suggests that if the nature and status of religious beliefs are to be on par with beliefs formed in the sciences, theologians should also commit to this discussion. If theologians are committed to intelligibility, they have to engage with this conversation in a sincere way.

Van Huyssteen explains that the role of *intelligibility* as an epistemic value is crucial, though it should not be interpreted as a search for conclusive foundations (1999:115). Furthermore, in Van Huyssteen's view the degree of intelligibility in theology rests on the level of responsibility of its judgments (1999:115). This means that theology needs to be responsible in judging the explanatory role of religious beliefs (1999:115). Theologians would only isolate themselves if they were to appeal to revelation or inspired texts as foundations for intelligibility. Thus, it is imperative to acknowledge the shared resources of rationality at one's disposal:

The epistemic quest for *optimal understanding* and *intelligibility*; and the epistemic skill of *responsible judgement* involving *progressive problem-solving* (Van Huyssteen 1999:12).

Van Huyssteen comments:

The back and forth between the epistemic skills of responsible judgement and interpreted experience will ... turn out to be at the heart of a postfoundationalist notion of rationality (1999:116).

Van Huyssteen argues without hesitation that experiences are interpreted experiences. He explains that, because of the interpreted and interpretative nature of experiences, theologians and scientists are empowered to identify the rational integrity of their

respective disciplines by offering their own recourses of critique, articulation and justification (1999:116). He remarks that such a view responds appropriately to the postmodern argument that there are no universal epistemic systems (1999:116). This allows for methodology to be constructed contextually without forcing epistemic values onto it. Thus, theologians and scientists construct methodologies appropriate to their respective disciplines and contexts, according to what seems reasonable in pursuit of intelligibility and optimal understanding (1999:116). This means that theologians and scientists need not have similar methodologies. What is important is that they employ responsible judgement in constructing their methodologies. Both will be deemed rational if they keep to this requirement. However, it is essential that both disciplines allow open discussion of their unique methodologies. This way the integrity of each discipline is protected, while allowing critique of its methodology and beliefs.

Hence, Van Huyssteen suggests that theologians need a well-defined theory of experience to avoid relativism or absolutism (1999:116). To accomplish this, he suggests that both theologians and scientists need to realize the importance of preserving a critical stance toward their respective traditions (cf. 1999:116). They are obligated to step beyond their own methodological boundaries in cross-contextual conversation.

In theology's case, a clear definition of its intellectual quest and focus is needed. Van Huyssteen reflects on this:

...theology should seek a knowledge that will allow us to understand optimally what we are committing ourselves to, and where possible, to construct theories as better explanations of what is experienced in the life of faith (1999:117).

If this should be taken to be theology's epistemic goal, our rationality should be shaped and formed accordingly. Van Huyssteen comments on this issue:

...in our ongoing quest for understanding the experience of faith, rationality in theology ultimately consists of discerning and arguing for those theories, models or research traditions that are judged to be most effective problem-solvers within the concrete context of theological reflection (1999:118).

This, however, begs the question as to what is meant by *problem-solving abilities*. Moreover, how should we understand *progressiveness* in theology and science? Can theologians evaluate the progressiveness of a theological theory?

3.1.1 Progressive Problem-Solving

In “From Critical Realism to a Methodological Approach: Response to Robbins, Van Huyssteen, and Hefner” (1988) Nancey Murphy raises the issue of the nature of theology’s progressive, problem-solving abilities. She critiques the usefulness of *critical realism* as a philosophical doctrine. She judges critical realism to be:

...a problematical philosophical doctrine that unnecessarily complicates attempts to relate theology and science (1988:287).

On the other hand, she advocates for a reconstruction of theology according to the scientific methodology of Imre Lakatos. She argues that Van Huyssteen’s interpretation of critical realism is focused on the justification of theological claims and how these compare to scientific claims (1988:288). She elaborates by explaining that Van Huyssteen understands rationality as an explanatory tool. Thus, the only way to judge a theory is by evaluating its ability to explain whatever it seeks to explain. Moreover, according to Murphy, it seems that Van Huyssteen himself questions whether critical realism justifies the interaction between theology and science (1988:288). This leads Murphy to conclude that critical realism is an unnecessary philosophical doctrine in creating interdisciplinarity between theology and science.

In “Is the Postmodernist Always a Postfoundationalist? Nancey Murphy’s Lakatosian Model for Theology” (1993) Van Huyssteen responds to Murphy and reaffirms that he still regards critical realism as necessary (1997:88). He explains that critical realism is a critique of direct or indirect foundationalism in the construction of epistemic systems. Moreover, he explains that the postmodernist is not always a postfoundationalist. Elaborating on this, he outlines the challenges faced by theologians in a postmodern world:

1. Do we still have good reasons to remain convinced that the Christian message does provide the most adequate interpretation and explanation of one's experience of God, of the world and of one's self?
2. If so, would these reasons be epistemological, ethical or pragmatic?
3. Does it still make sense within a postmodern context to be committed to the fact that the universe as we have come to know it ultimately makes sense in the light of Sinai and Calvary (Golgotha)? (1997:74).

Van Huyssteen suggests that theologians need to respect the celebration of pluralism when dealing with postmodernism. However, theologians also need to maintain a sense of continuity. He warns that this is not just a balancing act. It may require a radical revisioning of the way in which we reflect on and articulate basic Christian beliefs (1997:75). This is true for all religious/spiritual beliefs, as well as scientific beliefs. Furthermore, reminiscent of Pannenberg, Van Huyssteen states that theologians need to explore the assumption that there is continuity between Christian theology and the common human quest for interpreting reality rationally (cf. 1997:75). Keeping these challenges in mind, he finds Murphy's Lakatosian model insufficient (1997:86).

Moreover, Van Huyssteen remarks:

In our quest for theological intelligibility, religious experience guides us not only in finding ultimate meaning in our lives, but also ultimately in connecting the religious quest for understanding with our general quest for understanding the world rationally (1997:84).

Van Huyssteen evaluates Murphy's model and finds that it isolates itself from criticism on foundational assumptions. Therefore, while her model might be postmodern, it reveals crypto-fideistic tendencies (Van Huyssteen 1997:90). Critical realism tries to set limits to the range and scope of theological and scientific language (1997:88). Adopting scientific language in theology does not make theology rational. Neither is a scientific method appropriate for theology. A weak form of critical realism claims that our subjective experience of the world is of the same order as our recreation of it in our language, because language is not just expressive of reality, but also shapes our

experience of it (1997:88-89). Critical realism is a necessary *attitude* that guides in evaluating and constructing epistemic systems.

In *The Shaping of Rationality* (1999) Van Huyssteen explains that the modernists' model of rationality deems a belief or truth claim rational if it meets at least the following three conditions:

1. It must show universal validity
2. It must exhibit a necessary relation between the different components of the argument
3. It must be determined by specific logical rules (1999:120).

He puts it well:

...a belief, act, choice or decision is rational only if it conforms to a set of logical and factual criteria that are applicable in every context (1999:120-121).

Therefore, Van Huyssteen explains, rationality will always function in the same way, whatever the context (1999:121). This modernist understanding of rationality is bound to foundationalism, a reluctance to acknowledge the contextuality of rationality (1999:121). The purpose of such an understanding is to avoid the irrational arbitrariness of subjective judgment. It tries to generate value-free knowledge. According to Van Huyssteen, foundationalism surfaces in theology when commitments to specific doctrines, confessions, philosophical methodologies or hermeneutic devices are made in advance (1999:121). The major problem with foundationalist approaches is that the commitment to these principles is not only made in advance, but is not open to discussion. It serves as a protection of what is understood as the core of theology.

However, Van Huyssteen observes that this foundationalist approach is also found in science (1999:121). Truth claims made by scientists are understood as truly objective, because they use empirical data (1999:122), which were thought to be value free. This, however, is not argued for, but decided in advance. Furthermore, those hypotheses that past the tests successfully contribute to the overall growth of scientific knowledge. Thus,

the rationality of empirical data does not need investigation. It is only in evaluating the hypotheses that rationality comes into play. Hence, empirical data are assumed to be objective.

Van Huyssteen points out that the influences on the scientist gathering this empirical data were not discussed (1999:122). Intuition, creativity, culture, politics, religious views and ethical values were assumed to have no influence on the scientists when they gathered data. Therefore it is not appropriate to raise questions as to the rationality of the hypotheses constructed. Only when dealing with the implications of hypotheses does rationality become a necessary point of discussion. As mentioned above, Kuhn and Popper argued convincingly against this stance (Van Huyssteen 1999:122). Both these scholars illuminated the historical development of scientific theories and illustrated the subjectivity of scientists. The distinction between the *context of discovery* and the *context of justification* in the classic model of rationality was strongly rejected by Kuhn.

Van Huyssteen draws on Harold Brown, who also asks on what basis one selects the information that would serve as foundational? More than this, Brown asks how one would go about selecting the rules/logic of a model of rationality (1999:124). Van Huyssteen (1999:124) cites Brown:

The failure of foundationalism is an epistemic failure; it underlines a point about the limits of our knowledge of the truth of our premises and the adequacy of our rules.

Van Huyssteen refers to Brown's view of Larry Laudan, who suggests making sense of the link between rationality, justification, problem solving and progressiveness through the use of what Laudan calls *research traditions* (Van Huyssteen 1999:126). Van Huyssteen explains that, like Lakatos's *research programme*, Laudan takes a *research tradition* to be a set of ontological and methodological do's and don'ts, but unlike Lakatos's *research programmes*, these *research traditions* have a living and evolving core (1999:126). Laudan does not agree with Kuhn's dramatic paradigm shifts, and argues that while many aspects and features of a research programme might change, enough will remain unchanged to assert some form of continuity. Referring to Brown,

Van Huyssteen comments that it is precisely the *revolutions* in the scientific research programme that illuminate the failure of a foundational epistemology, because its assumptions/foundations keep changing. Van Huyssteen explains:

If the history of science provided us with a steady accumulation of truths, with no major revolutions, then we would have strong grounds for believing that we have in fact stumbled onto a foundationalist starting point for scientific epistemology. It is thus the occurrences of revolutions that show most clearly that, even in the natural sciences, we have not achieved the kind of universal basis for mediating disputes that the classical model requires (1999:126).

Hence, Van Huyssteen states that if rationality were to be used to facilitate constructive interdisciplinary conversation, then a break from foundationalist thought is necessary (1999:128). Ironically, extreme nonfoundationalist do not make this break, but mimic it. In other words, the postmodernist is not necessarily a postfoundationalist.

Returning to Laudan, slightly different than in *Teologie as Kritiese Geloofsverantwoording* (1986) [Theology and the Justification of Faith (1989)], Van Huyssteen explains that Laudan argues that the rationality and progressiveness of the modernistic model are closely linked to its problem-solving effectiveness (1999:165). That is to say, it is the problem-solving ability of the modernistic model that led to its being judged as rational. In other words, it is not the process of justification through verification or falsification that makes scientific reflection rational (1999:165). According to Van Huyssteen, rationality for Laudan is about making the most progressive choice of theory – choosing the theories that have the best problem-solving abilities while allowing for further development. However, criteria are needed to evaluate this choice.

Van Huyssteen observes that Laudan begins by distinguishing between the material, spiritual, social and cognitive progress of a theory (1999:165). Furthermore, he explains that Laudan identifies progress in terms of the intellectual goals of a discipline's cognitive progress. Thus, the cognitive progressiveness of a theory can be evaluated against the goals it sets for the discipline in which it is proposed. This notion applied to

scientific reflection reveals that science is essentially a problem-solving activity for Laudan (Van Huyssteen 1999:166). Therefore, in science the degree of a theory's problem-solving ability reveals its cognitive progress. What matters is the ability of theories to provide adequate solutions to specific problems. It follows that the rationality of science does not set it apart from other modes of rational reflection (1999:165). Rationality is defined as the ability to provide appropriate solutions to the problems identified within a specific context. Therefore, any mode of reflection can be regarded as rational if it provides adequate and appropriate solutions.

Following Laudan, Van Huyssteen also argues that the problem-solving abilities of a theory are important for evaluating such a theory (1999:166). It is the ability of a theory to provide adequate and appropriate solutions that determines its rationality. According to Van Huyssteen, this has been neglected in theological reflection:

...theology has rarely questioned the intellectual and experiential adequacy of opinions, theories, and doctrines as answers to specific experiential of intellectual problems (1999:166).

It is important to Van Huyssteen that Laudan links rationality and progressiveness quite closely, which neatly fits with Rescher's and Brown's notion of a weak objectivity and *estimated truths* (cf. Van Huyssteen 1999:166). The truth of a theory is secondary to its problem-solving abilities. Van Huyssteen (1999:166) refers to Laudan when he writes that:

...appraising the merits of theories as answers to specific problems, it is more important to ask whether they constitute adequate solutions to significant problems than it is to ask whether they are *true* or otherwise justifiable within the framework of contemporary epistemology.

Thus in Laudan's view, according to Van Huyssteen (1999:167), intellectual progress is a process of turning unsolved problems into solved problems through responsible judgement and adequate theory-choice.

Furthermore, Van Huyssteen observes, Laudan distinguishes between two kinds of problems in the quest for intelligibility: empirical or *first-order* problems and conceptual or *higher-order* problems (1999:167). The former refers to problems that arise in dealing with questions about the natural world that we need explained. The latter refers to problems that are created in the course of intellectual reflection. Van Huyssteen explains that these problems only exist within theories. They are abstract problems revealed in the models we use for understanding reality (1999:168). Laudan evaluates the problem-solving ability of a theory with regard to both the first- and higher-order problems. That is to say, the effectiveness of a theory's problem-solving abilities depends on the equilibrium it achieves between solved and unsolved problems – first and second order (cf. 1999:169). Van Huyssteen explains that if a theory solves many empirical problems, but creates just as many problems conceptually, it is not effective. However, this applies for the inverse as well. If a theory solves many conceptual problems, but creates difficulties when dealing with empirical problems, it is not effective. A theory with effective problem-solving abilities should achieve an equilibrium between solved and unsolved problems, empirically and conceptually.

For example, Darwin's theory of evolution through natural selection proved to be effective in solving first- and higher-order problems. However, this theory has been improved and modified in regard to first- and higher-order problems. The theory of creation in Genesis, on the other hand, creates first-order problems if it is taken literally. This theory creates problems in scientific as well as in theological reflection. If it were argued that there is some transcendent agent that created reality, the theory might acquire equilibrium. The point is that any theory should make sense both conceptually and empirically. However, a theory does not have to solve all problems. It should solve problems in such a way as to allow for solutions to problems it does not address (Van Huyssteen 1999:169). Therefore Van Huyssteen remarks that the evaluation of a theory is a dynamic and ongoing process.

Furthermore, Van Huyssteen points out that Laudan, Kuhn and Lakatos all agree that the progressiveness of a theory is determined by the general sets of doctrines or global theories and not by specific individual doctrines (1999:170). Laudan argues that a

research tradition is a complex and comprehensive framework made up of networks of conceptual, theoretical, instrumental and metaphysical commitments (Van Huyssteen 1999:171). These traditions go through numerous detailed formulations and have a long intellectual history extending through a significant period of time. This is a way of approaching research that develops over long periods and gets passed on from generation to generation, each changing it as necessary. These research traditions provide guidelines for the development of specific theories and therefore represent a set of ontological and methodological do's and don'ts. In other words, these traditions represent:

...a set of general assumptions about the entities and processes in a domain of study, and about the appropriate methods to be used for evaluating and constructing theories in that domain (Van Huyssteen 1999:171).

Consequently, Van Huyssteen argues that the postfoundationalist chooses in favour of the research tradition with the highest problem-solving abilities through responsible judgement (1999:172). The postfoundationalist would also keep context in mind and therefore choose the research tradition appropriate to the specific problem within the specific context (1999:172). The postfoundationalist acknowledges the contextuality of theories and does not attempt to find a modernist metanarrative. Furthermore, the postfoundationalist does not fall prey to the relativism of nonfoundationalism. Therefore Van Huyssteen judges Laudan's theory to be postfoundationalist in nature (cf. 1999:169).

Van Huyssteen observes that Laudan's view of rationality as a progressive theory choice validates disciplines that were previously thought to be irrational (1999:173). Van Huyssteen explains that in terms of this view theology, metaphysics and literary criticism are shown to have the ability:

...for making rational appraisals of, and judgments about, the relative merits of competing research traditions within them (1999:173).

Once again, Van Huyssteen shows there are shared resources of rational reflection. In this view, diverse disciplines are shown to be capable of progressive problem-solving. It follows that *progressive problem-solving*, as an epistemic value, allows for constructive interdisciplinary conversation, because it is an epistemic value shared by all (1999:173) – not in a foundationalist sense, but in a contextually aware postfoundationalist way. Van Huyssteen (1999:172) cites Laudan:

Far from viewing the introduction of philosophical, religious and moral issues into science as the triumph of prejudice, superstition and irrationality, this model claims that the presence of such elements may itself be entirely rational; further, that the suppression of such elements may itself be irrational and prejudicial.

3.1.2 Rhetoric

According to Van Huyssteen (1999:128), Nicholas Rescher identifies three broader dimensions of rationality: cognitive, evaluative and pragmatic. Drawing on Rescher's reflections, Van Huyssteen explains that in a postfoundationalist approach to rationality all three these dimensions of rationality are brought together in a seamless whole. The cognitive, evaluative and pragmatic dimensions are merged into one. It is these merged dimensions that serves as a tool in constructing the best reasons for our beliefs and actions⁷³ (1999:128). A postfoundationalist's choice of theory goes beyond the cognitive dimension. It merges the cognitive dimension with the evaluative and pragmatic dimension. The reason for this is that the postfoundationalist does not seek any reason, but the best possible reasons for committing to specific beliefs and practices within a specific socio-historical context (1999:129). The pragmatic dimension of these reasons does not take second place after the cognitive or evaluative dimensions. As seen above, postfoundationalists are in pursuit of theories that provide equilibrium in cognitive and empirical problems.

⁷³ Veldsman (2004:282) clarifies: "From Rescher, Van Huyssteen takes up the three resources of rationality which he identified, namely the cognitive (finding good reasons for hanging on to certain beliefs), evaluative (finding good reasons for making certain moral choices) and pragmatic (finding good reasons for acting in certain ways) context. Although the former (that is, the cognitive) is more dominant, the latter two are regarded as of the same importance."

Therefore, Van Huyssteen explains, the difference between theological reflection and scientific modes of reflection is not to be determined firstly by exploring and evaluating the similarities and differences in methodology (1999:129).⁷⁴ Following Rescher, Van Huyssteen suggests the first point of exploration should be what exactly happens when one makes a choice that one regards as rational. He writes:

This will focus the problem of rationality on the question of the nature and status of rational judgment, and on the scope or range of the epistemological *overlaps* shared by these two forms of rational inquiry (theological and scientific inquiry) (1999:129).

Van Huyssteen remarks that what is important here is not to regard the postfoundationalist's focus on the context as a road leading to relativism (1999:130). It is precisely the embeddedness in social, historical and cultural contexts that implies experiential/empirical and theoretical adequacy which makes a belief a responsible belief and a judgment a rational judgment.

Taking this into account, Van Huyssteen argues that the postfoundationalist is also a *critical realist* (1999:130). In other words, reality, as one gropes to understand it, seems to reflect the workings of the human mind. Van Huyssteen notes that Jerome Stone⁷⁵ refers to this as the *transactional character* of all interpreted experience. Van Huyssteen (1999:130) refers to Stone:

Experience is always a complex interaction between the self and the world, between the environment and lived feelings.

There are no points of *pure* experience of the world – no uninterpreted experience of the world. However, humans are in touch with the world (Van Huyssteen 1999:130). It is not just language all the way down, as Wittgenstein suggests in his later writings. Van Huyssteen explains that humans are not prisoners held hostage by language games.

⁷⁴ These types of approaches can be seen in the work of Nancey Murphy and some of the proposals in *Rethinking Theology and Science* (1998).

⁷⁵ Jerome Stone is a philosopher and theologian at the Meadville-Lombard Theological School.

According to Van Huyssteen (1999:131), Rescher makes the point that the reason for humans' connection with reality independent of the mind can be found in biology.

Van Huyssteen (1999:131) notes Rescher's argument that human rationality is conducive to human survival and therefore must reflect reality. Although not always in tune with reality, humans are in touch with reality. However, Van Huyssteen remarks, if one acknowledges the fact that there is no direct or *pure* access to reality, then theories should be accompanied by an epistemic humility. Theories are tentative, imperfect and fallible (1999:131). Theories can never be proclaimed infallible, because the experience of reality is always interpreted and incomplete. Therefore Van Huyssteen reminds us that it is necessary to understand rationality as the responsibility to pursue epistemic values that may cultivate the ability to achieve optimal understanding (1999:131). Of these epistemic goals, intelligibility seems to be the most important in this regard and Van Huyssteen does not find surprising Rescher's argument that Darwin is fundamental in explaining the cognitive resources of human rationality (1999:131). Optimising judgments forms the crux of human rationality.

Taking this into account, Van Huyssteen distils his understanding of human rationality as being:

...the way we form our beliefs and how and why we hold onto them in the various domains of our lives (1999:131).

Reflecting on this, Van Huyssteen refers to the interesting contributions of Mikael Stenmark concerning beliefs in various areas of life and how they actually have something in common. He points out that Stenmark argues it is on a pre-analytical, everyday level that beliefs and judgements are regarded as rational, if one can appeal to good reasons for having them (1999:132) – or even better, if they can be proved on request (1999:132). No one has a choice whether or not they would like to do this or not

– participation is implicit. Furthermore, religious beliefs are also formed on a pre-analytical level for the most part.⁷⁶ Van Huyssteen (1999:132) agrees with Stenmark:

In religion too, believers form beliefs about God or the divine and how that relates to their concrete situations, while religious convictions typically result from experiences of suffering or joy, meaning or meaninglessness, guilt or liberation.

Van Huyssteen explains that rationality is drawn on in day-to-day activities to make sense of the various domains of life (1999:132). Therefore, a theory of rationality will only be appropriate if it deals carefully with the way in which rationality performs in all these domains. Hence, having good reasons will lead to proper discernment and responsible judgment. It is important, though, to note Van Huyssteen's comment that good reasons are justified by *appropriate evidence* (1999:132). In turn, discernment and responsible judgment will form the basis for distinguishing between rational and non-rational beliefs. The rhetorical dimension of rationality is illuminated here, because rationality involves the capacity to give an account of what is believed; rationality has an implicit rhetorical dimension, as Van Huyssteen explains:

...through our persuasive discourse and action we try to demonstrate *to others* the reasonableness of our thinking, judgments, choices, values, and actions (1999:132).

Drawing on the work of Calvin O. Schrag, Van Huyssteen argues it is rhetoric "that weaves together the cognitive, evaluative and pragmatic aspects of rationality" (1999:133). Rhetoric is used to demonstrate the reasonableness of beliefs and actions. Rhetoric is essential to rationality. It fuses the cognitive, evaluative and pragmatic dimensions together, making intersubjective conversation manageable.

Moreover, Van Huyssteen argues that rhetoric makes interdisciplinary reflection workable (1999:133). He explains that rhetoric functions as a tool in convincing others

⁷⁶ Van Huyssteen (1999:132) comments: "In the Christian religion (tradition), it is by means of theological reflection that we take up the task to reflect on the acceptance or rejection of beliefs and networks of beliefs, and should pointedly ask the question if any belief of this sort is rationally acceptable."

of the rationality of one's beliefs and practices (1999:133). The beauty of rhetoric for Van Huyssteen is that it already implies the contextuality of belief and reaches beyond the immediate context in order to convince others on an interpersonal contextual level (1999:133). Van Huyssteen suggests that the same is true in interdisciplinary conversation. Human beings become rational agents when they can provide good reasons for their beliefs and actions (1999:133). Moreover, Van Huyssteen makes it clear that good reasons are reasons that can bridge the gap between discourse and action appropriately. Thus, the emphasis on the rhetorical dimension of rationality implies a high level of accountability of beliefs and actions. This accountability is intertwined with the history of a particular social context and integrates the epistemic role of interpreted experience (1999:134). Rhetoric implies that the rational agents try to convince other rational agents within a particular historical social context of the rationality of their beliefs and actions shaped by their interpretation of reality. Van Huyssteen writes:

A belief, action or choice is therefore rational if we can convince others that it was a sensible thing to arrive at in the specific circumstances of a specific social context (1999:133).

Van Huyssteen comments that by including rhetoric in a model of rationality, one broadens the scope of the concept of rationality considerably (1999:134). However, he acknowledges that some would say that this introduces relativity into rationality, but he explains that, on the contrary, rhetoric illuminates the accountability of rationality (1999:134). Moreover, rhetoric allows a focus on the historical and social context. For Van Huyssteen, rhetoric shows the practical side of rationality and the crucial epistemic role of interpreted experience (1999:134). Rhetoric understood this way is an extremely useful tool in human rationality, as Van Huyssteen explains:

If rationality is not just a matter of having some reasons for what one does, but aligning one's beliefs, actions, and evaluations with the best available reasons within a specific context, then all domains or levels of rationality are held together in the common or shared quest of finding the best available reasons to attain the highest form of intelligibility (1999:134).

Hence, rhetoric:

...reveals a common/shared dimension in all human rationality, and a way to integrate the performative presence of rationality in various domains of our lives without again totalizing it in a modernist, rationalistic vision where different modes of knowledge are united in a seamless unity (1999:134).

Van Huyssteen adds that this is what Rescher refers to as the *universal intent* of human rationality (1999:134).

3.1.3 The Rational Agent

One of the unique aspects of a postfoundationalist notion of rationality is its shift from *rational beliefs* to *rational agents*. This broadens rationality even further by fusing rational beliefs with rhetoric, contextuality and personal commitments. All these aspects are brought together in one innovative concept, namely the *rational agent*.

Van Huyssteen has argued before that value judgments play a large and important role in rational thinking (1999:142). There are no set rules that can be followed in theory choice, and no checklist for determining rationality and the influence of pragmatic, empirical and extra-empirical factors in rational thinking has been uncovered (1999:142). Van Huyssteen (1999:142) refers to Stanton Jones when he writes:

The variety of empirical and extra-empirical factors, epistemic and nonepistemic values that shape the process of scientific reflection...are not a chaotic collage of random beliefs of values, but...are normally fairly coherent and as such reflect our fundamental commitments to specific research traditions and worldviews. These research traditions and broader worldviews are for the most part tacitly assumed and rarely produced through rational reflection.

With this in mind, Van Huyssteen argues that for the postfoundationalist science and other forms of rationality are not placed opposite each other; this leads to the view that there is no essential difference between the epistemic function of values in science and their function in other modes of rational inquiry such as the humanities, ethics and

theology (1999:143). If the use of value judgments in science is deemed rational, then the use of value judgements in the humanities, ethics and theology should be deemed rational too. Van Huyssteen explains that if the use of value judgments seems more subjective in these disciplines, this is because of the difference in epistemological focus and a broader experiential scope (1999:143). Rationality, however, is not captive to either an epistemic focus or experiential scope. In a complete turnaround, Van Huyssteen argues that to disregard subjective factors in science, ethics or theology would make such an evaluation non-rational⁷⁷. To put it simply, rational reflection and personal value judgment have thus been merged, which implies that rationality and context are not only compatible, but in fact inseparable. Van Huyssteen, in agreement with Harold Brown, defines rational judgment in this broader postfoundational epistemic sense as:

...the ability to evaluate a situation, to assess evidence and then come to a responsible and reasonable decision without following any preset, modernist rules (Van Huyssteen 1999:143).

This being said, the postfoundationalist's rational judgment is not arbitrary. Van Huyssteen explains that it is always based on quite specific information generated in a very particular context (1999:144). Furthermore, responsible rational judgement is more than just the expression of private feelings (1999:144). It is a process of intersubjective communication which is focused on the contextual, but transcends the personal through intersubjective communication. This means that responsible rational judgement always entails a rhetorical process.⁷⁸

This brings Van Huyssteen closer to the idea of *rational agents*, because rational judgments are understood to be made by:

⁷⁷ Van Huyssteen (1999:143) comments: "The way in which personal value judgments and rational reflection have now been inextricably linked finally gets us beyond the modernist dilemma of polarizing theology and science, subjectivity and objectivity, contextuality and rationality."

⁷⁸ Van Huyssteen (1999:144) remarks: "The main deficiency of the classical model of rationality has been exactly its inability to recognize the rational status of these judgments in spite of their fallibility".

...individuals who are in command of an appropriate body of information relevant to the judgment in question (1999:144).

According to Van Huyssteen, Harold Brown suggests that rational judgment should be understood as an epistemic skill (1999:144). Van Huyssteen refers to Brown's suggestion and explains:

...there is nothing mysteriously intuitive about epistemic judgment...it can be included in a thoroughly naturalistic view of human cognition. Learning to make the right or appropriate decisions, or solve certain problems, therefore involves the development of intellectual skills that are in many ways, analogous to physical skills (1999:144).

Furthermore, Van Huyssteen explains that judgements should be made by a community of *experts* who participate in a process of intersubjective deliberation and collective assessment (1999:144). He finds Brown's notion of rational judgment liberating, because it breaks through the notion that only the infallibility of perfectibility counts in epistemic matters. Brown's notion of rational judgment opens up a kind of epistemic humility that allows for fallibilism (Van Huyssteen 1999:144).

Interestingly, Van Huyssteen observes that Brown illustrates that people can function effectively and successfully with a set of beliefs that they later modify or change for better beliefs (1999:144). Brown's notion of rational judgment allows for this fallibilism. Van Huyssteen explains:

There need be no incompatibility between accepting that set of fallible claims for a substantial period of time, and also being prepared to reconsider them when we have good reasons for doing so (1999:144).⁷⁹

It is exactly here that Brown's innovative move from rational beliefs to rational agents becomes important.

⁷⁹ Van Huyssteen comments that it is important to remember this in theological reflection, especially where no fixed or absolute rules are available (1999:144).

In *Rethinking Theology and Science* (1998) Van Huyssteen explains the postfoundationalist draws on the fused cognitive, evaluative and pragmatic dimensions of rationality in search of the best reasons for committing to particular beliefs, choices and actions in theology and science (1998b:24). However, Harold Brown emphasizes the evaluative dimension of rationality in his discussion on rationality. Brown does so by highlighting the prominence of critical judgement (Van Huyssteen 1998b:42). Brown argues that judgement should be understood as the ability to come to a reasonable decision by evaluating the situation and assessing the evidence without following fixed rules. In other words, judgement does not involve a checklist. Furthermore, instead of focusing on the general, judgment needs to focus on the particular and the contingent (Van Huyssteen 1998b:24). Judgement should not be made according to general rules, and neither should there be a search of such rules. Van Huyssteen remarks that this is an important move, because *logical positivism* misrepresented the meaning of science by doing just that. Logical positivism represented science as a rational pursuit of value-free truth. This view has been widely discredited. All knowledge, including scientific knowledge, is rooted in value judgments (1998b:25)

Furthermore, according to Van Huyssteen (1998b:26), Brown emphasizes the evaluative dimension of rationality in order to liberate rationality from a search for infallible epistemic principles and argues that humans function successfully on sets of beliefs that they later modify or change. In other words, agents function on sets of fallible claims for a significant period of time. These claims are fallible because agents are prepared to re-evaluate them when they have reason enough. Van Huyssteen comments that this understanding guides Brown's turn away from classical notions of rationality. Brown does not search for foundationalist epistemic values in order to acquire rational beliefs. Rational beliefs are determined by other factors. Van Huyssteen explains that it is at this point that Brown suggests the search for rational beliefs ceases and refocuses on a search for rational people:

...who can exercise good sense and good judgement in difficult and complex circumstances (1998b:26).⁸⁰

Van Huyssteen regards this as a postfoundationalist move:

In the classical model the central emphasis is placed on the logical relations between the evidence and the belief, while the role of the agent is minimized. In Brown's move...the human agent is taken to be basic and the way that an agent deals with sufficient reasons or evidence in arriving at a belief will be determinative of the rationality of that belief for him or her (1999:146).

The focus now shifts away from *rational belief* to *the rational agent*. This is a move away from abstract thoughts towards acknowledging the contextuality of the embodied mind.⁸¹ Van Huyssteen explains a rational belief is now understood as a belief arrived at by a rational agent (1999:145). Part of the reason for this shift is that rhetoric plays an important role in rationality (1999:145) and a rational agent has the ability to make appropriate judgement calls in situations devoid of clear and definitive rules (1999:146). A rational agent, however, also needs to be open to new ideas (1999:145). Van Huyssteen notes that Rescher argues that the ability to act as a rational agent is determined by the quality of the expertise on the subject (1999:146). Van Huyssteen is clear that this does not imply that only experts can be rational. However, it does imply that sometimes the only rational decision to be made is to seek expert advice. This is to say, when the necessary experience and expertise on a particular issue are not sufficient,

⁸⁰ Brown (1988:185), however, makes an important distinction: "...we must distinguish between a rational *agent* and a rational *person*, for we will see that a single person may be capable of acting as a rational agent in some circumstances, but not others." Furthermore, Brown (1988:186) points out: "We depend on our ability to be rational when we lack clear rules. When rules are available, an informed agent will recognize that it is the case, and will apply those rules; it is when rules are not available that we require rational assessment."

⁸¹ This focus on the embodied mind is reminiscent of some existentialist scholars. Miguel de Unamuno stated: "Philosophy is a product of the humanity of each philosopher, and each philosopher is a man of flesh and bone who addresses himself to other men of flesh and bone like himself. And, let him do what he will, he philosophizes not with the reason only, but with the will, with the feelings, with the flesh and with the bones, with the whole soul and with the whole body. It is the man that philosophizes" (Macquarrie 1978:15).

it would be best to seek the advice of someone who does possess such knowledge⁸² (1999:146).

To some extent everyone already identifies rational agents in their day-to-day lives. They regard the opinions of some as being more valuable than others. Van Huyssteen points out that Brown appropriates this for the discussion on rationality. However, it is important that the criteria for being a rational agent are discussed.

Shifting the emphasis to the rational agent automatically integrates the social dimension of decision-making into rational reflection (Van Huyssteen 1999:146). All knowledge claims have to be submitted to a community of people with the necessary skills to exercise responsible judgment on the particular issue at hand. This is to say, it is not just any community that can evaluate a knowledge claim. It should be a community possessing the necessary skill to make an appropriate judgement on the issue⁸³ (1999:147). In other words, rational agents of a specific tradition are needed to evaluate the merit of specific reflections within the context it is offered.

Van Huyssteen suggests that this should make it clear that the postfoundationalist appropriates a constructive postmodern awareness of context (1999:147). The postfoundationalist acknowledges that all reasoning strategies are practices within a specific context and for a particular purpose. Therefore, rationality requires other people.

What makes Brown's suggestion ingenious, in Van Huyssteen's view, is its departure from Kuhn. Van Huyssteen explains that Kuhn argued that an agreement reached by the majority makes a decision, belief or action rational (1999:148). Van Huyssteen explains that Brown agrees one cannot be rational in a vacuum. However, the agreement of the majority does not make a belief rational, because consensus is not a prerequisite for

⁸² This is why Van Huyssteen facilitates interdisciplinary research the way he does. He consults experts on particular subjects rather than foolishly stumbling into domains of which he knows nothing.

⁸³ Richard Dawkins is guilty of not addressing an appropriate community of experts regarding his position on religion. If we take Brown seriously, then Dawkins's opinion is neither rational nor irrational. It is non-rational. He does not submit his belief to an appropriate community of experts to be evaluated, and as such his belief sidesteps the crucial aspect of responsible intersubjective communication. Van Huyssteen claims that Dawkins also oversteps disciplinary boundaries haphazardly, making interdisciplinary conversation impossible (1998a:108).

rationality (1999:148). Brown argues that the beliefs of agents need only be submitted to their peers for evaluation as to their rationality (1999:148).⁸⁴ Interestingly, Van Huyssteen explains that, although one needs a community of experts to arrive at a rational belief, it is still the agent that holds the rational belief (1999:149). In a postfoundationalist model of rationality:

...the predicate *rational* first of all characterizes an individual's decisions and beliefs, not propositions or communities (1999:149).

This point is very important, because, Van Huyssteen explains, a rational agent is not someone who knows rational propositions (1999:149). Van Huyssteen explains that a rational agent is someone who can make responsible judgments within a situation without clear rules. A community may function on the beliefs of a rational agent, but this does not make the community rational (1999:149). The rational beliefs are held by the rational agent and adopted by the community. However, a rational agent can only be rational within a community and therefore the rational agent is dependent on the community just as the community is dependent on the rational agent.⁸⁵ Thus, rational beliefs are *involved* beliefs. It is the fallibility of the rational agent's judgments and beliefs that leads to the requirement of ongoing critical evaluation by the community of experts (1999:149). This is truly postfoundational. However, the question of relativity and truth still persists.

Regarding relativity, Van Huyssteen explains that while the rational agent is conditioned by a historically specific context, the agent's reflection need not be completely determined by the context (1999:147). There is a big difference between *context-determined* and *context-conditioned* beliefs, and the postfoundationalist opts for the

⁸⁴ Brown (1988:187) explains: "In these terms. Robinson Crusoe alone on his island could exercise judgment, but he would not be able to achieve rationality. This is not because of some failing in his faculties, but rather for a reason akin to the reason why he could not play baseball, even though he could throw balls in the air, hit them with a bat, and run bases. On the model I am proposing, rationality requires other people - and not just any people, but other people who have the skills needed to exercise judgment in the case at hand."

⁸⁵ Brown (1988) explains: "...a rational belief or decision is one that an individual has arrived at through a two-step process (these steps need not be chronologically distinct). The belief is based on judgement - where possession of the relevant information and expertise is a necessary condition for a judgement, and this judgement has been tested against the judgements of those who are also capable of exercising judgement in this case."

latter. The rational agents' thoughts can transcend the particularities of their social and historical context. Van Huyssteen (1999:148) refers to Schrag's wording:

In this way the rational self is *in* history, but not just *of* history.

Furthermore, Van Huyssteen notes that Brown acknowledges the question of relativity and argues:

...first, to claim that a belief is rational is not the same as to claim a belief is true; second, while rational acceptance of a claim indeed depends on the assessment of evidence, some forms of evidence provide stronger warrant for belief than other form of evidence (1999:150).⁸⁶

Important to the postfoundationalist, according to Van Huyssteen, is that rationality involves the evaluation of a community of inquiry and that the voice of the rational agent is not silenced in this ongoing process of collective assessment (1999:150). Still, rationality and context are inseparable and therefore the rationality and relatedness of a given claim must be evaluated by the ongoing process of collective assessment (1999:151). This leads Van Huyssteen to raise the question of the rationality of those individuals who see beyond the available community. How does one understand and incorporate the rationality of the gifted visionary or prophet?

Regarding this challenge, Van Huyssteen turns to the innovative work of Philip Clayton⁸⁷ and Steven Knapp.⁸⁸ He observes that Clayton and Knapp illuminate this issue by arguing that:

⁸⁶ Van Huyssteen (1999:150) cites Brown: "Thus while questions of denominational theology may be capable of a rational solution, it does not follow that we have no basis at all for choosing between, say, a scientific and a theological worldview at those points at which the two views conflict."

⁸⁷ Philip Clayton is a contemporary American theologian and philosopher who currently holds the Ingraham Chair of Theology at Claremont School of Theology. He received dual PhDs from Yale in philosophy and theology, working with Louis Dupre. He also studied as a DAAD fellow under Wolfhart Pannenberg, eventually working as a translator of Pannenberg's theological works. His research focuses on the relationship between religion and science, process theology, philosophy of religion, and contemporary issues in ecology, religion and ethics.

⁸⁸ Steven Knapp is a specialist in Romanticism, literary theory, and the relation of literature to philosophy and religion.

...there is no reason to hold that any presently existing community fully represents a rational agent's sense of what a community is or should be (1999:151).

This means that the evaluation of a belief or practice should be done in the light of the standards implicit in the particular agent's self-conception. One should therefore evaluate rational agents according to the criteria they try to adhere to themselves. Furthermore, one should evaluate their beliefs in the light of the community of rational agents implied in their argument, even if it is as yet a non-existent community. Van Huyssteen remarks that the fact that the beliefs of agents are judged and evaluated against the standards implicit in their self-conception⁸⁹ reveals the rich resources of human rationality unearthed in a postfoundationalist approach (1999:151). In other words, evaluation should be done contextually, but not necessarily within the immediate physical context. One should evaluate beliefs or reflections according to the community the rational agent addresses - even if such a community does not yet exist. Evaluation should follow the context implied by the rational agent.

Van Huyssteen holds that this is an innovative postfoundational move. Taking the self-conception of the rational agent seriously is a move away from foundationalist epistemic systems. Van Huyssteen elaborates on this:

...the rational agent's self-conception and self-awareness are intrinsically connected to rationality and an indispensable starting point for any account of values that shape human rationality (1999:152).⁹⁰

⁸⁹ Van Huyssteen's recent publication *In Search of Self* (2011), probes this idea even further. The self-conception of rational agents is important in evaluating the rationality of their beliefs; therefore, the notion of the *self* is an important aspect of rationality.

⁹⁰ Daniel Goleman writes extensively about *emotional intelligence* in his book *Emotional Intelligence – Why it can matter more than IQ* (1996). In his book Goleman makes a distinction between the rational and emotional brain biologically and between the rational and emotional mind. Goleman (1996:9) writes: "These two minds, the emotional and the rational operate in tight harmony for the most part, intertwining their very different ways of knowing to guide us through the world. Ordinarily there is a balance between the emotional and rational minds, with emotion feeding into and informing the operations of the rational mind, and the rational mind refining and sometimes vetoing the inputs of the emotions. Still, the emotional and rational minds are semi-independent faculties, each...reflecting the operations of distinct, but interconnected, circuitry in the brain. In many or most moments these minds are exquisitely coordinated; feelings are essential to thought, thought to feeling. But when passions surge the balance tips: it is the emotional mind that captures the upper hand, swamping the rational

Van Huyssteen reminds us that one can only access rationality from where one stands (1999:152). This is all the more reason why one's beliefs and practises should be submitted to an appropriate community for evaluation, be it an existing community or not. Human beings are rational agents with a distinct self-awareness, each with their own quest for intelligibility. It follows that agents can only enter an intersubjective conversation by appealing to their own reality and rationality (Van Huyssteen 1999:153). Rationality, context and strong personal commitment are intimately woven together. Therefore, Van Huyssteen writes:

As human beings, we are characterized by self-awareness, and our individual, personal motivations or reasons for believing, acting, and choosing are not only closely tied in with some sense of who this *I* is, but are indeed epistemically shaping the value judgments we make in terms of this self-conception (1999:152).

This leads Van Huyssteen to elaborate on the same questions he posed in *Teologie as Kritiese Geloofsverantwoording* (1986) [Theology and the Justification of Faith (1989)] regarding personal commitments. Van Huyssteen now adds that rational agents are justified in holding onto their strong beliefs, as long as they truly participate in the ongoing feedback process of the community (1999:153). Van Huyssteen (1999:153) refers to Schrag when he writes:

mind." Goleman explains that there is an evolutionary reason for the priority of emotion: "The fact that the thinking brain grew from the emotional reveals much about the relationship of thought to feeling; there was an emotional brain long before there was a rational one" (1996:10). This becomes even more interesting when Goleman begins to discuss the biology of emotions and the neurological path of emotional and rational thinking. Taking the working of the amygdala into account, it becomes possible to argue that emotions matter for rationality. He explains: "In the dance of feeling and thought the emotional faculty guides our moment-to-moment decisions, working hand-in-hand with the rational mind, enabling – or disabling – thought itself. Likewise, the thinking brain plays an executive role in our emotions, except in those moments when emotions surge out of control and the emotional brain runs rampant. Ordinarily the complementarity of the limbic system and neocortex, amygdala and prefrontal lobes, means each is a full partner in mental life. When these partners interact well, emotional intelligence rises – as does intellectual ability. The old paradigm held an ideal of reason freed of the pull of emotion. The new paradigm urges us to harmonize head and heart" (Goleman 1996:28-29). This fits nicely with a postfoundationalist approach. Furthermore, it offers an unexplored dimension to a postfoundationalist approach to rationality, especially with regard to the *rational agent*. It follows that part of being a rational agent will consist of a high level of emotional intelligence. If, as Brown suggests, *rational judgment* is a skill that can be learned (cf. Van Huyssteen 1999:144), so too can emotional intelligence be improved.

...because rationality requires that we attune our beliefs and judgments to our own self-conception and self-awareness, rationality also requires that we attune our beliefs, convictions and evaluations to the overall pattern of our experience. On this view, it should be clear that a postfoundationalist notion of rationality could never be some kind of superimposed metanarratives, but itself develops as an emerging pattern that unifies our interpreted experience without totalizing it.

Furthermore, although rational agents need not convert to the community's opinion, because rationality does not presuppose consensus (Van Huyssteen 1999:152), rational agents need to participate in the ongoing discussion on the belief or practice they proposed (1999:153). The agent needs to remain involved in this discussion in a sincere manner. It would not be rational to hold onto beliefs that are in complete conflict with the community's ongoing process of evaluation without good reason for doing so (1999:153). Therefore, the rational agent should always be open to intersubjective evaluation.⁹¹

According to Van Huyssteen, Mikael Stenmark suggests that Brown's model might be too idealised. Van Huyssteen explains:

...if rationality is always agent- or person-related, it should also be agent- or person-relative (1999:154).

Van Huyssteen points out that Stenmark grounds Brown's model by arguing that the nature of rationality is unrestrictedly universal in intent (1999:155). That is to say, while rational agents, with their own self-conceptions, make rational judgments within a specific context, this does not make rationality itself relative since the nature and intent of rationality are universal (1999:155). Here it is not rationality, but a rather rational

⁹¹ Van Huyssteen explains that in the same way theology, as a discipline, can only be rationally justified holding on to its truth claims, if it sincerely partakes in the interdisciplinary conversation. Theologians need to submit their beliefs to a relevant community of experts and these experts might be extra-disciplinary. Only in constructing, employing and nurturing a relationship with the wider academic community can theological reflection achieve the necessary credibility of lending its insight to the common human quest for intelligibility. He will come to call such a theology, a *public* theology. Furthermore, it is important to understand that epistemic communities do not exist in isolation from one another. It illuminates the need for a contextualized notion of rationality to facilitate intersubjective, cross-disciplinary and interdisciplinary conversation (cf. Van Huyssteen 1998b:32).

belief, that is contextual. In other words, rationality is not a slave to particular contexts and traditions. It is the rational beliefs formed within these particular contexts that are relative. Therefore, one should not deem rationality as relative, but rather the beliefs acquired with the help of rationality subject to contextuality (1999:155). The knowledge acquired within different contexts will be different, because the information feeding the process will be different. Moreover, rational agents have to seek intersubjective evaluation of their beliefs for these beliefs to be rational. A belief moves from individual judgement through expert evaluation to intersubjective conversation in its desire to be rational. It is in participating in this process from individual judgement to intersubjective conversation that a belief achieves rational status. Hence, it is not rationality itself that is relative, but rational beliefs that are specific to a particular context.

Nevertheless, according to Van Huyssteen, Brown argues that we take scientific rationality to be the best example of human rationality at work (1999:155). Van Huyssteen explains that this is not to say that other modes of reflection are not rational, but that scientific rationality serves as a good example of how human rationality does work in the real world. Interestingly, Van Huyssteen refers to Mikael Stenmark who turns this around and suggests that *everyday* rationality is an example of human rationality at work. Van Huyssteen explains that Stenmark does not suggest that *everyday* rationality is better than scientific rationality, but *everyday* rationality is the most utilised (1999:156). Van Huyssteen concurs with Stenmark that any model of rationality could only be adequate if it includes day-to-day lives, art, religion(s), science and technology. Van Huyssteen explains:

Everyday beliefs are by far the largest domain of beliefs we have, and they are about one's own self-awareness, about other people, about how we relate to one another and live our lives, and ultimately also about how we find (ultimate) meaning in life (1999:156).

Hence, everyday, *pre-scientific* lives should serve as the paradigm case, because the beliefs formed within them cannot be avoided (Van Huyssteen 1999:156). Everyday

rationality is fundamental, because agents cannot function normally as human beings without it (1999:156). Consequently, scientific rationality might be highly rational, but it is not necessarily fundamental to human experience. This, however, does raise the question of the truth of rational beliefs. Van Huyssteen suggests that the postfoundationalist does pursue truth, but the postfoundationalist understands truth differently than the foundationalist and nonfoundationalist do.

3.1.4 Truth

Explaining what truth might mean for the postfoundationalist, Van Huyssteen turns to Nicholas Rescher, amongst others. According to Van Huyssteen, Rescher states that while *consensus* has normally been seen as the cornerstone of truth, it does not need to be (1999:156). Rescher argues that diversity and dissensus can play a surprisingly constructive role in communal discourse (1999:157). Van Huyssteen notes Rescher's point that rationality does not need to lead to consensus:

It is...rational to optimize our choices rhetorically by providing the best available reasons for our beliefs, actions, and choices (1999:157).

Rescher argues that the focus should shift to a pluralism of diversity, as Van Huyssteen explains:

...the fact that different people have different experiential situations makes it normal, natural, and rational that they should proceed differently in cognitive, evaluative, and practical matters (1999:157).

Still, Van Huyssteen suggests that consensus is an ideal, but not a realisable fact of life (1999:157). Diversity in experience, epistemic situations, cognitive values and methodologies occurs, because rational agents are embedded in different, concrete contexts and live within diverse traditions (1999:157). Taking this into account, Van Huyssteen proposes that consensus is neither a prerequisite for, nor a consequence of, rationality.

This understanding of consensus, according to Van Huyssteen, does move away from the classical model, but not as drastically as the nonfoundationalist model (1999:157). Van Huyssteen explains that in the classical model rationality equals truth, whereas truth in the nonfoundational model is contextually determined (1999:157). However, Kuhn and Laudan have both shown that people can function successfully on the basis of convictions and beliefs that they later reject as false. Van Huyssteen observes that Brown explains this occurrence in human behaviour by making an interesting distinction between rationality and truth:

...rationality is concerned with assessing reasons and then making judgments for believing one claim or another (1999:157).

In other words, rationality facilitates the evaluation of beliefs in order to judge what is true or not. Brown therefore argues that rationality and truth are distinct from each other in that achieving rationality does not automatically mean the truth has been achieved (Van Huyssteen 1999:158). This goes for the reverse as well. Achieving truth does not mean one has achieved rationality (1999:158). This is why Van Huyssteen and Brown describe rationality as the pursuit of the best reasons for our beliefs. This is a shift of focus. Pursuing the truth does not make one rational. Being rational means searching for the best possible reasons why one believes what one believes. While *rationality* and *truth* are vital, Van Huyssteen concurs with Brown's, Rescher's and Stenmark's argument for a weak link between the two (cf. 1999:158). Van Huyssteen (1999:158) refers specifically to Brown in this regard:

...we proceed rationally in attempting to *discover* truth, and we take those conclusions that are rationally acceptable as our best *estimations* of the truth.

Brown, Van Huyssteen observes, describes the ultimate function of rationality as: constructing coherent procedures in order to execute our pursuit of optimal understanding (1999:158). Striving for the truth is viewed as a long-term process. Van Huyssteen explains that while recent theories may be regarded as better than previous theories, they should not be understood as closer-to-the-truth (1999:158). To claim that a theory is closer to the truth, one needs to know what the truth is in advance. An

estimation of the truth does not require such prior knowledge. Rescher, in turn, also warns against talking of better reasons as better *approximations* of the truth (Van Huyssteen 1999:159). Van Huyssteen suggests this point is strengthened by referring to Kuhn's work. Kuhn illustrated that the notion of a linear accumulation of knowledge in science is not true. Taking this into account, Rescher argues that what is achieved in scientific reflection is not an *approximation* of truth, but an *estimation* of truth⁹² (1999:159). Van Huyssteen observes that Rescher makes a further distinction between a *better estimate* and a *closer estimate*. The former entails fuller information and fewer deficits, whereas the latter implies a move closer to the *real truth* (1999:159). Consequently, according to Van Huyssteen, truth itself is redefined in a postfoundationalist approach to rationality. Truth could now be defined as:

...the best possible estimates or judgments that we are able to make in the present moment (1999:159).

For practical reasons, however, Van Huyssteen agrees with Rescher that the phrase *in pursuit of truth* be retained (1999:159). Furthermore, Brown also explains that while objective knowledge cannot be acquired, distinguishing between objectivity and rationality can be helpful (Van Huyssteen 1999:159). Brown, Van Huyssteen explains, argues that rationality is possible:

...in the absence of regular scientific objectivity. However, a weak notion of objectivity is still epistemically important, because in the sciences it provides us with an especially powerful body of evidence, or, as will be the case in theology, with persuasive reasons to be used in the judgment and rational assessment of our knowledge claims (1999:160-161).⁹³

⁹² Van Huyssteen (1999:158) comments: "As far as scientific theories go, our present world picture thus represents a better estimate than our past attempts only in the sense that it is, comparatively speaking, more warranted than they are because a wider range of data has been accommodated." This is one of the reasons why Van Huyssteen argues for interdisciplinary research, because it will yield an even better estimation of the truth.

⁹³ Here Stenmark makes a distinction between *questions of rationality* and *questions of justification*. The former deal with *when* a person is entitled to his/her beliefs, while the latter deal with *when* a belief should be generally acceptable or be considered as part of our body of knowledge (Van Huyssteen 1999:160 footnote 4).

Van Huyssteen remarks that attaining value-free truth is impossible for the postfoundationalist, but the notion of objectivity, as an epistemic value amongst others in the context of discovery, is still helpful (1999:162). The postfoundationalist is not indifferent to truth. Postfoundationalists are still in pursuit of the best estimation of the truth within a particular context.

Explaining the function of objectivity in postfoundationalism, Van Huyssteen refers to Brown's view that:

...the evidence or good arguments supporting an objective belief must derive from a source that is independent of that belief (1999:159).

The problem with this understanding of objectivity is that it cannot be used in ethics or theology. Therefore Van Huyssteen suggests that there might be another basis on which to strive for objectivity in ethics and theological reflection. He explains that Brown's understanding is focused on the natural sciences, where the domain of research is independent of the mind. Van Huyssteen therefore appropriates Brown proposal for use in theology and science, and explains what needs to be done:

In the case of theology...we need to carefully unpack the relationship between the fiduciary structure of the believer as rational agent, the epistemic influence of a faith commitment, religious texts, religious tradition and religious experience (1999:160).

Van Huyssteen explains that this implies that the theologian needs to provide the best available reasons for believing, doing, judging and choosing in specific ways (1999:160)

Taking all this into account, it is evident that objectivity is an important, helpful and sought-after epistemic value, but it should not be taken as the determining factor in evaluating the rationality of a belief or truth claim.

Throughout *The Shaping of Rationality* (1999) Van Huyssteen consistently illustrates that rationality, as a tool for attaining optimal understanding, draws on shared resources. However, by sharing epistemic values, different disciplines and research

traditions will inevitably come to a shared question or, at least, to a shared point of interest. Van Huyssteen states that this shared aspect of human rationality is referred to as *transversality* (1999:135).

3.1.5 Transversality

Van Huyssteen explains that transversality refers to the point of contact where one line intersects a system of other lines or surfaces. Van Huyssteen observes that Calvin Schrag appropriates this concept from mathematics for his discussion on rationality (1999:135). Schrag⁹⁴ follows Sartre⁹⁵ and proposes that the notion of transversality indicates how human consciousness and self-awareness are unified. Schrag argues that self-awareness and experiences of past consciousness are transversally integrated to form consciousness (1999:135). In other words, past consciousness – which, along with self-awareness, also formed over time – informs present consciousness. One is therefore conscious of the *now* only through the lens of what has passed in time. Van Huyssteen explains that Schrag's intent is to:

...justify and urge an acknowledgement of multiple patterns of interpretation as one moves across the borders and boundaries of the different disciplinary matrixes (1999:135).

Van Huyssteen takes his cue from Schrag here and proposes that the notion of transversality provides the reason for not jettisoning epistemology as postmodernists tend to do (1999:135). He explains, with reference to Schrag that:

⁹⁴ Schrag (1992:149) writes: "the story of transversality as a philosophical concept in modernity is an account that links transversality with a subject-centered philosophy of consciousness. The plot of this story has been prominently illustrated in Sartre's appropriation of transversality in his effort to solve the problem of the unity of consciousness."

⁹⁵ The metaphor of transversality in philosophy has its roots in Jean-Paul Sartre's existential theory of consciousness. Van Huyssteen (2006:20) cites Sartre: "The I is the producer of inwardness...Consciousness is defined by intentionality. By intentionality consciousness transcends itself. It unifies by escaping from itself...It is consciousness which unifies itself, concretely, by a play of *transversal* intentionalities which are concrete and real retentions of past consciousness." Sartre, according to Van Huyssteen, fuses transversal rationality with consciousness and self-awareness. This is unified by an experience of self-presence in which diverse past experiences are transversally integrated (2006:21).

...the notion of transversal rationality opens up the possibility to focus on patterns of discourse and action as they happen in our communicative practices, rather than focussing only on the structure of the self, ego, or subject (1999:135-136).

Transversal rationality is an intersecting of various forms of discourse or modes of thought.⁹⁶ It is a lying across, an extending over and linking together (Van Huyssteen 1999:136). Van Huyssteen states that transversal rationality:

...emerges as a place in time and space where our multiple beliefs and practices, our habits of thought and attitudes, our prejudices and assessments, converge (1999:136).

This leads Van Huyssteen to argue that transversal rationality makes it possible to acknowledge contextuality more appropriately and move from one discourse to another (1999:136).⁹⁷ The transversality of rationality leads the way to a new understanding of interdisciplinary conversation. Furthermore, Van Huyssteen explains that the degrees of transversality achieved in the interdisciplinary conversations will:

...depend on the effectiveness of our dialogue across the boundaries of different domains, and on the (often fragile) understanding we achieve in our interaction with one another (1999:136).

Van Huyssteen insists that the notion of transversality is of the utmost importance to the postfoundationalist, because it reveals:

⁹⁶ Richard R. Osmer (2008:172), a Princeton colleague of Van Huyssteen, distinguishes between *correlational*, *transformational* and *transversal* models of cross-disciplinary dialogue and comments: "Unlike the transformational approach, the transversal model presupposes a more fluid and dynamic understanding of the relationship between disciplines. Disciplines are not pictured as distinct language games but as networks that transverse one another and share the common resources of rationality. While this model has much in common with the correlation approach, it gives greater attention to the pluralism found in virtually every field today. In light of this pluralism, cross-disciplinary dialogue must become more concrete than is typically the case in correlation models."

⁹⁷ Schrag (1992:149) writes: "...certain tendencies in the employment of the vocabulary of transversality need to be resisted. Chief among these tendencies is the rationalistic impulse to sublimate the several usages in the various disciplines into a higher concept that totalizes the different faculties of knowledge into a seamless unity viewed from above, as well as the positivistic impulse to determine a usage that is somehow paradigmatic and normative for all the rest, inviting a hegemonic *unity of the sciences* seen from below."

...the shared resources of human rationality precisely in our very pluralist, diverse assemblages of beliefs or practices, and then to locate the claims of reason in the overlaps of rationality between groups, discourse or reasoning strategies (1999:136).

According to Van Huyssteen, Schrag argues that *reason* is operative in the transversal play of thought and action (1999:136). Van Huyssteen points out that Schrag distinguishes between three important dimensions of such a transversal rationality. The play between thought and action takes place in three moments of communicative praxis: (praxial) evaluative critique, (praxial) engaged articulation and (praxial) incursive disclosure. This brings context into play and creates a fusion of thought and action.

According to Van Huyssteen, Schrag states that evaluative critique, as critical discernment, is vital for concrete, specific (interdisciplinary) conversation and therefore constant engagement is necessary (1999:137). Van Huyssteen explains what evaluative critique implies:

...a separating, sorting out, distinguishing, contrasting, weighing and assessing of our different options (1999:137).

Furthermore, Van Huyssteen explains, the moment one articulates a thought or idea one links rationality to discourse; this is what Schrag calls *engaged articulation*, as Van Huyssteen explains:

Each domain or configuration of our praxis has its own specific and inherited characteristics which shape the identity of our discourses. In this sense articulation is *recollective*. Articulation is also, however, *anticipative* and runs forward in the sense that it marks out new possibilities for new forms of discourse and new forms of action. This articulation of meaning as possibility not only enables new forms of discourse and praxis against which past and present forms can be judged and re-evaluated, but also rescues our critique from being simply a strategy of negation and deconstruction (1999:137-138).

Van Huyssteen suggests that this notion illuminates the nuanced postfoundationalist approach to meaning as a social practice and shows that the postfoundationalist:

...goes beyond extreme forms of postmodernism by not only countering what is not feasible, not desirable, not workable, but actually projecting the positivity of the possible (1999:138).

Van Huyssteen explains what Schrag refers to as the moment of *incursive disclosure*:

...it is disclosure that keeps articulation from circling back on itself to a space where there is nothing outside of language, nothing beyond the text (1999:138).

Van Huyssteen explains that agents relate to their worlds only through interpreted experience and, therefore, they need to disclose in order for others to relate. What is incursive about it is that one is confronted with something outside one's world (1999:138). Another world is disclosed which is different to one's own. This otherness is the effect of transversal lines that intersect and open up new/other interpretations to one's own world.

This leads Van Huyssteen to suggest that a constructive interdisciplinary conversation making use of transversality can only exist if participants are constantly engaged with other participants. Furthermore, Schrag's distinction of the important dimensions of a refigured transversal rationality links well with what is required of a rational agent.⁹⁸ A rational agent needs to be engaged in conversation with an appropriate community of experts to be regarded as rational. This distinction also acknowledges rhetoric as part of rationality.

Hence, Van Huyssteen argues that *transversality*, by embracing the postmodern critique against modernist claims for universality, replaces the classic notion of *universality* (1999:139). Postmodern relativity is turned against itself, revealing

⁹⁸ In *Alone in the World?* (2006) Van Huyssteen (2006:21-22) elaborates on Schrag's distinctions: "Schrag also distinguishes between *discursive* (the performance of articulation in language and conversation) and *nondiscursive* practices, the latter comprising, specifically, the performance of embodied rationality beyond the realm of language and the spoken word...Transversal rationality thus emerges as a deeply embodied rationality, and our actions, desires, emotions are all ways of also understanding and articulating ourselves and our world(s)."

transversality to be a more productive approach (1999:139). Van Huyssteen explains that transversality becomes a vehicle for shuttling between modernist and postmodernist thought (1999:139). The postfoundationalist splits the difference between modernist and postmodernist approaches and transversality proves to be a useful and productive means of fusing epistemology and hermeneutics. Van Huyssteen writes:

Transversal/postfoundationalist rationality thus enables us to shuttle in the space between modernity and postmodernity: the space of interpreted experience and communicative praxis which enables praxial critique, articulation, and disclosure...A postfoundationalist notion of rationality thus creates a safe space where our different discourses and actions are seen at times to link up with one another, and at times to contrast or conflict with one another. It is precisely in the hard struggle for interpersonal and interdisciplinary communication that the many faces of human rationality are revealed (1999:139).⁹⁹

Van Huyssteen comments that these spaces are perfect for interdisciplinary conversation because they are safe (1999:139). They are spaces where one can stand in a critical relationship with one's own tradition without fear of rejection. They are spaces outside of any participating reasoning tradition and therefore safe for all involved. Theologians, for instance, can engage issues in ways not traditionally viewed as appropriate for theological reflection. They can do this without fear of violating the integrity of their tradition, because they are acting in spaces separate from their tradition. This space also protects the integrity of all reasoning traditions involved. Theologians cannot enter the space of scientific reasoning strategies and the same applies vice versa for scientists. In the transversal space theologians can be in conversation with scientists, without conversing directly with their tradition. One is

⁹⁹ Van Huyssteen's phrasing here is important. He suggests that Schrag's transversal rationality is also a postfoundationalist approach to rationality. This means, according to Van Huyssteen, that Schrag's approach should also be distinguished from postmodern approaches. However, Van Huyssteen's postfoundationalist notion of rationality, whilst making use of Schrag's transversal rationality, is distinct from Schrag's model of rationality. Van Huyssteen still calls his approach a postfoundationalist approach. Van Huyssteen (1999:139) writes: "Schrag's work on the resources of rationality...manages to avoid the extremes of the modernist nostalgia for one, unified form of knowledge, as well as the relativism of extreme forms of postmodernism. As such it greatly enhances the notion of postfoundationalist rationality that I am developing here."

therefore obligated to criticise and evaluate one's own tradition, as well as to protect one's tradition against others wanting to do this. In this way different cultures can also be brought together in conversation.

Furthermore, Van Huyssteen points to Brown's argument that a transversal understanding of rationality provides the possibility for contextually developed rationality to be of significance for other contexts as well (1999:140). Brown explains that science, for example, was developed in the Western world, but its significance justifiably transcends Western culture (Van Huyssteen 1999:140). In other words, the focus and scope of scientific reflection crosses cultural lines. Because of the type of knowledge it seeks, scientific reflection has significance for all cultures living in this world.

Furthermore, in *Alone in the World?* (2006) Van Huyssteen argues that transversality makes it possible to operate within a particular context as well as to transcend that context in striving toward intersubjective discussion without the need for a superimposed metanarrative. Therefore, transversal reasoning facilitates the difference in interpretation of different disciplines (2006:19). The reason for this is that while the problems are interpreted differently, these interpretations are equally legitimate, provided that the methodologies used by these different disciplines are open for discussion. Van Huyssteen writes:

...interdisciplinary dialogue can...be seen as multidimensional and thus convergent path moving toward an imagined vanishing point: a transversal space where different voices are not in contradiction, nor in danger of assimilating one another, but are dynamically interactive with one another (2006:19).

Furthermore, Van Huyssteen explains that transversality as a metaphor points to:

...a sense of transition, a lying across, extending over, intersecting, meeting and conveying without becoming identical (2006:19).

Moreover, Van Huyssteen argues that this interpretation of rationality also roots out the tendency to unify all the faculties of knowledge (2006:19). Scientific knowledge is no longer viewed as superior to other forms of knowledge. Van Huyssteen refers to Wolfgang Welsch, who argues for transversal reasoning as a move away from static notion of rationality:

...the axis of reason is rotated from verticality to horizontality, and human reason itself now becomes a dynamic faculty of performative transitions that interconnects the various forms of human rationality (2006:19).

In other words, there are no hierarchies of reasoning strategies. All reasoning strategies are partners in the quest for optimal understanding, provided all reasoning strategies are engaged in the discussion on their rationality. Van Huyssteen regards this as a truly postfoundationalist notion. This, however, does not imply that the different domains of rationality are independent from one another. Rather, the integrity and identity of these domains are protected.

In other words, Van Huyssteen argues that a postfoundationalist approach to rationality reflects the way human rationality functions in day-to-day life and that such an approach facilitates interdisciplinary conversation/reflection. More than this, Van Huyssteen argues that a postfoundationalist approach to rationality is consistent with the evolution of human cognition as paleoanthropologists explain it.

3.2 Evolutionary Epistemology and Cognitive Fluidity

Because a postfoundationalist understanding of rationality shifts the focus from rational beliefs to rational agents, it is essential to inquire into human consciousness and cognition. Van Huyssteen writes:

I accept, in at least the minimalist sense, that a postfoundationalist epistemology will only be understood adequately if we also recognize the implications of the fact that all our knowledge – not only our scientific knowledge, but also our religious knowledge – is grounded in biological evolution (1998a:136).

Reflecting on this issue, Van Huyssteen finds the insights of the *evolutionary epistemologist* illuminating for a postfoundationalist approach to knowledge (1998a:134). Already in *Duet or Duel?* (1998) Van Huyssteen explains that human consciousness, like conscious experience, has brought values and purpose into existence (1998a:134). Furthermore, together with this consciousness, the predisposition of the human mind to understand the world rationally has also developed. Evolutionary epistemology takes this seriously and seems promising in constructing a comprehensive epistemic system. Van Huyssteen suggests that this discipline might actually help to rediscover the shared resources of human rationality (1998a:134). This suggestion rests on the notion that all rational reflections are shaped not only by the social, historical and cultural dimensions of their context, but also fundamentally shaped by the biological roots of human rationality (cf. 1998a:135).

In *Alone in the World?* (2006) Van Huyssteen suggests that evolutionary epistemologists argue in congruence with Charles Darwin's understanding of evolution (2006:69). Van Huyssteen argues that Darwin's conception of human dignity and human nature still function as the canonical core of the ongoing discourse on human evolution, because Darwin's views are still shaping ideas on the evolution of human cognition (2006:69). Contemporary evolutionary epistemologists specifically take up the challenge of understanding the epistemological implications of Darwin's theory of evolution and are therefore important in any discussion on human rationality.¹⁰⁰

Van Huyssteen explains that the basic hypothesis of evolutionary epistemologists is that the mental capacities of humans are constrained by the mechanisms of biological evolution (2006:75-76). This hypothesis rests on the notion that humans are the product of evolutionary processes. This means that all knowledge is grounded in biological evolution. If this is the case, it is necessary to understand the evolution of the

¹⁰⁰ In conversation with Van Huyssteen he explained the significance of the *theory of evolution* for theology and all discussions on human rationality. Van Huyssteen regards the theory of evolution as a *point of no return*. By this he means that this theory will only become more established, therefore it is necessary to engage it sincerely. There is no reason to expect that a radically new theory on the development of the universe and everything in it will be presented. Therefore, Van Huyssteen suggests that we have reached a *point of no return* and the theory of evolution is here to stay. With this in mind, Van Huyssteen engages this theory regarding the biological and cultural evolution of *Homo sapiens* and human rationality (Stellenbosch Institute for Advanced Study, Stellenbosch, November 2010).

human mind (2006:75). Van Huyssteen refers to Rescher, who argues that human intelligence arose naturally through evolutionary processes precisely because it provides one very effective means of survival (cf. 2006:76). Van Huyssteen explains:

Human rationality, seen in the broadest sense of the word as our particular human ability to cope intelligently with an intelligible world, can therefore be seen as conducive to human survival, which makes the explanation of our cognitive resources fundamentally Darwinian (2006:76).

Van Huyssteen comments:

The historical emergence of our thought mechanisms, therefore, is doubtless biological (Darwinian), but as will become clear...the development of our thought methods is also governed by the complicated social processes of cultural evolution. In Nicholas Rescher's words, thinking people are by and large just as interested in the future fate of their ideas as in the future fate of their descendants: the survival of their *values* is no less significant for them than that of their *genes* (2006:48 footnote 10).

Donald T. Campbell¹⁰¹ introduced the term *evolutionary epistemology*. Campbell, according to Van Huyssteen, proposed that evolutionary epistemology would be an epistemology that appreciates humanity's status as a product of biological and social evolution (2006:76 footnote 10). Furthermore, Campbell argued, as do all evolutionary epistemologists, that evolution is a knowledge process, even in its biological aspects (2006:76). Van Huyssteen explains this implies that a natural-selection paradigm for knowledge increments can be generalised to other epistemic activities as well (2006:76). In other words, if all adaptations are understood as forms of knowledge, be it biological or cultural, evolution itself becomes the process by which knowledge is achieved (cf. 2006:76). Van Huyssteen suggests that if understood this way, evolution is more than just the *origins of species*. Evolution becomes a rich process that leads to the thoughts

¹⁰¹ Donald Thomas Campbell was an American social scientist. He coined the term *evolutionary epistemology* and developed a selectionist theory of human creativity.

and ideas in human minds (2006:76). Yet, Van Huyssteen remarks, such an epistemology has been neglected in the dominant philosophical traditions.

What strikes Van Huyssteen is that evolutionary epistemology presents a biological basis for a postfoundationalist approach to rationality in that:

1. It highlights the fallibilist nature of our rational judgments and explains that there is progress in the growth of knowledge, but does not assess such progress as an increase in the accuracy of depiction or as an increase in the certainty of what we know;
2. Moreover, evolutionary epistemology reveals extreme nonfoundational and antirealist positions as forms of epistemic narcissism, because nonfoundational and antirealist positions make us think that knowledge is not a relation between the knower and what is known. These attitudes are a narcissistic reflection of our own image in our society, or of our society in us (2006:77).

Biology, Van Huyssteen writes:

...suggests that our power of abstraction and our ability...for having distinct expectations are the result of natural selection, that our cognitive apparatus is adaptive, and that the whole of our knowledge consists of theories that are embodied proposals (i.e. organisms) or disembodied proposals (i.e. conscious theories) made to the environment (2006:77).

Van Huyssteen reminds us that Karl Popper also made an important contribution to evolutionary epistemology in that he extended the concept of Darwinian evolution to knowledge in general¹⁰² (2006:78). Popper suggested that knowledge is not gained by

¹⁰² Van Huyssteen (2006:78) notes: "Popper famously did not accept Darwinism as a testable scientific theory because of its near tautological nature (the best fitted to survive will survive) and its lack of testability. However, it did provide a *metaphysical research program*, also for evolutionary epistemology and for the emergence of human consciousness as something irreducible to any lower level of existence, a comparatively rapid evolution that has enabled the human to become to a large extent emancipated from dependence on its immediate environment." Consequently, Van Huyssteen explains, it was Popper's views on evolutionary epistemology that made this discipline a meta-theory in science.

induction. He argued that one proposes theories to one's environment and that most of these theories are falsified in this process. However, some of these theories are not falsified and these one keeps and builds on (Van Huyssteen 2006:78). Furthermore, Popper suggested that it is through language that humans created a body of objective knowledge which enables them to profit from the trials and errors of their ancestors (2006:78). The evolution of language marks an important point in the evolution of humankind¹⁰³, because:

...from this point on, human evolution is the evolution of knowledge (2006:78).

Van Huyssteen explains that the link between Darwinism and Popperian philosophy of science brought forth a fresh understanding of rationality (2006:79). Darwin introduced the idea that natural selection forms part of the rational process. He suggested that it is not in the avoidance of error that rationality is formed, but in the occurrence of error and the elimination thereof. This is reminiscent of a postfoundationalist notion of rationality. Van Huyssteen (2006:79) cites Peter Munz:

...the path of reason is not a secure path which leads from certainty to certainty; rather, it is a wild display of the imagination, the products of which are scrutinised by criticism.

Van Huyssteen explains what this implies for the notion of rational agents:

The rational person, on this view, is not the person who controls his or her imagination, but the person who subjects the products of his or her imagination to criticism. In this novel view of rationality the rational person learns through his or her mistakes, without necessarily implying any teleology in this process of falsification (2006:79).

In order to extract the rich resources of contemporary evolutionary epistemologists, Van Huyssteen turns to the interdisciplinary work of Henry Plotkin¹⁰⁴ and Franz Wuketits.¹⁰⁵

¹⁰³ Steven Mithen also regards the development of language as paramount in his argument for *cognitive fluidity* (see *Prehistory of the mind* and *The Singing Neanderthal*).

¹⁰⁴ Henry Plotkin is an evolutionary psychologist.

Plotkin, according to Van Huyssteen, argues for a direct link between *instinct* and the human ability to know (2006:79). He does this by suggesting that intelligence can be understood as an extension of instinct. Thus Plotkin develops the concept of *epigenesis*, which proposes that:

...although adaptive structures and even behaviour in part have genetic cause, they are not necessarily invariant in form and may sometimes vary quite widely as a result of the environment in which the development occurs (Van Huyssteen 2006:81).

Therefore Plotkin argues that knowledge and its development have *internal* and *external* components (Van Huyssteen 2006:81). Van Huyssteen explains the internal component refers to *instinct* and the external to *rationality*, which is the product of reason, intelligence, learning and memory (2006:81). This has a fairly significant implication for the notion of rationality, because it implies that:

...rationality, intelligence, thought, and the ability to learn and remember are never just open-ended activities but are...constrained, limited, and directed by genetically determined instinctive behaviour (2006:82).¹⁰⁶

This, however, raises the question of why rationality evolved at all.

According to Van Huyssteen, Plotkin suggests that the impressive evolution of rationality must mean that intelligence and rationality, instead of instinct, have become favoured (2006:82). Instinct has been moved to second place, making space for intelligence and rationality. This leads to a next question: how does rationality make up for the limitations of instincts?

¹⁰⁵ Franz M. Wuketits studied biology, zoology, paleontology and philosophy, obtained his PhD from the University of Vienna in 1978 and has been teaching, evolutionary epistemology amongst other disciplines, since 1980.

¹⁰⁶ Referring to his use of Rescher's work in constructing a postfoundationalist approach to rationality, Van Huyssteen (2006:80) comments: "Rescher's well-known argument for a direct correlation between intelligence and intelligibility clearly resonates with Plotkin's argument that human knowledge in much the same way conforms to the relational quality or fit that all adaptations have."

Plotkin explains why rationality became favoured over instinct by referring to human culture:

...once intelligence has evolved in a species, self-conscious brains have a causal force equal to that of genes. For evolutionary theory to be complete regarding humans, intelligent behaviour has to be included, and so does a very peculiar feature of intelligent behaviour, namely, culture (Van Huyssteen 2006:84).

Furthermore, Van Huyssteen notes Plotkin's suggestion that culture should be understood as a third-level heuristic:

On this view human cognition is revealed as the mediator between biology and culture, and human knowledge emerges as a web of relationships that matches different levels of the hierarchy with different features of the world...knowledge as commonly understood is a special kind of adaption, and all adaptations should be seen as forms of knowledge (2006:84).

In Van Huyssteen's view, this implies that:

...the natural-selection paradigm can be generalized (or rather, metaphorized) to include some of our most crucial and broadly conceived epistemic activities such as learning, thinking, imagination, science, and even religion (Van Huyssteen 2006:84).¹⁰⁷

Taking his cue from this, Wuketits explains that all living systems can now be understood as information-processing systems (Van Huyssteen 2006:85). Firstly, Wuketits argues that evolution is determined by external selection, but also constrained by intra-organismic selection. Secondly, Wuketits argues that the flow of biological information is bidirectional – not unidirectional as it is normally understood (2006:85). Van Huyssteen explains that this means that cultural evolution actually has an effect on biological evolution. Interestingly, Wuketits shows that there is no justification for reducing the complex patterns of human culture to the principles of organic/biological

¹⁰⁷ This is what Richard Dawkins refers to as *memes* – the units responsible for cultural evolution, just like *genes* are responsible for organic/biological evolution.

evolution (2006:86). He argues that cultural evolution exhibits its own characteristics and system conditions. Van Huyssteen explains that evolution should be understood as a *cognition-gaining* process and just as biological information becomes incorporated into the organism, so too does cultural information evolve and transform (2006:87). Still, while cultural evolution is based on the biological, it has transcended biological evolution, displaying its own evolutionary processes and constraints.¹⁰⁸

According to Van Huyssteen, Wuketits goes on to explain how human culture can be explained in terms of organic evolution. Wuketits suggests that human culture relies on specific brain structures and functions, meaning that:

...it is a result of the peculiar development of the human brain and can be regarded as the most sophisticated expression of the brain's power (1998a:146).¹⁰⁹

Therefore, Van Huyssteen explains, the organic evolution of the human brain can be seen as the basis of cultural evolution, but cultural evolution requires explanations beyond the biological theory of evolution in its strictest sense (1998a:146-147). In other words:

...biological evolution offers the necessary conditions of culture, but it does not offer the sufficient conditions (1998a:147).

Once cultural evolution started, it obeyed its own rules/laws, forever changing the course of human evolution by acting back upon organic evolution (1998a:157).

¹⁰⁸ Wuketits argues that a non-adaptationist view of evolution is more fitting to evolutionary epistemology than an adaptationist view. He argues that even "organic evolution exhibits patterns of its own dynamics that effectively go beyond environmental constraints" (Van Huyssteen 1998a:144). This implies that the process of evolution is influenced by structures and functions of the organism itself. This means that evolution is an open process which creates its own laws *a posteriori* (Van Huyssteen 1998a:145). He explains that the ascendance of humankind is due to the pre-eminence of the brain and not only to bodily prowess.

¹⁰⁹ Munz (1985:310) explains: "The reason why the mind can have some genuine knowledge of the real world is because it is a product of that world - a product, that is, in the sense of evolution. We can understand the world not because the world is understandable, but because the mind is worldly. With evolution, the absolute distinction between the noumenal world and the phenomenal world breaks down."

Furthermore, Van Huyssteen notes that Wuketits makes an interesting point which accords well with a postfoundationalist approach to rationality:

...human rationality has a biological basis, and as such can be seen only as embodied rationality. And precisely because human rationality everywhere shares deeply in the biological basis, human rationality as such reveals a universal intent that links together all our diverse and complex epistemic activities (2006:87).

This accords very well with what Rescher referred to as *the universal intent of rationality*. In addition, this point relates extremely well to Van Huyssteen's stance that agents relate to their worlds only through interpreted experience (2006:88). This incorporates Van Huyssteen's argument for a contextually developed and directed rationality, as well as a search for truth. Wuketits point strengthens Van Huyssteen's suggestion that truth should be understood as the best *estimation* of the truth in a particular context. Expectations are always based on interpreted experiences, and these experiences in turn lead to new expectations (2006:88). Therefore, truth is not infallible, but may change if there are good reasons for doing so. What is important here to Van Huyssteen is that evolutionary epistemologists show that this is not only philosophical doctrine, but the result of a long-term evolutionary process (2006:88).

Furthermore, Wuketits argues that *phylogenetical memorising* also explains the universal intent of human rationality:

...members of a population or species have often managed to have the same experiences again and again. In the long run these experiences will be genetically stabilised so that any member of the species will be equipped with what we might call *innate expectations*, i.e., a *program* of expectations based on the accumulation of experiences of a species (Van Huyssteen 2006:88).¹¹⁰

¹¹⁰ Wuketits (1990:183-184) writes: "From the point of view of evolutionary epistemology any *a priori* knowledge is the result of evolutionary experiences, of evolutionary learning, as it were, so that the individual's *a priori* appears as an evolutionary *a posteriori*."

This notion is called *phylogenetical memorising* (2006:89). In this view, the process of evolution can now be described as a universal learning or cognition process (2006:89). This excites Van Huyssteen because evolutionary epistemology:

...reveals the process of evolution as a holistic, embodied, belief-gaining process, a process that in humans, too, is shaped preconsciously (2006:89).

Evolutionary epistemologists make a strong argument for the harmony between *external* and *internal* reality – between *nature* and the *embodied mind* – which supports Van Huyssteen’s decision to adopt the principles of *critical realism*¹¹¹ (cf. Van Huyssteen 2006:90).

Thus Van Huyssteen suggests that evolutionary epistemology transcends the classical/modernist subject-object polarisation and supports a postfoundationalist approach to rationality by showing that:

1. All cognition is a function of active systems that interact relationally with their environments;
2. Cognitive capacities are the result of these interactions between organisms and their environments, and these interactions have a long evolutionary history; and
3. Cognition cannot be described as an endless, accumulative chain of adaptations building on one certain foundation, but rather as a complex interactive process in which we move beyond our biological roots without ever losing touch with them (2006:92).

Taking all this into account, Van Huyssteen proposes that:

...evolutionary epistemology helps us to get out of the difficult position where we feel forced to have to choose between *naturalism* and *supernaturalism* as the only options available to us (1998a:138).

¹¹¹ Van Huyssteen (2006:91) comments: “...again we see that the choice is never just *for* science and *against* religion (or vice versa), but for or against certain comprehensive worldviews from which religion and science will emerge with either a significant level of compatibility or locked in serious conflict.”

While evolutionary epistemology convincingly argues for the biological roots of cognitive power and for understanding human rationality as embodied rationality, it does not clearly show the transversality of rationality. Here Van Huyssteen turns to Steven Mithen,¹¹² a paleoanthropologist and cognitive archaeologist, who argues for what he calls *cognitive fluidity*.

Mithen argues that cognitive fluidity produces the ability for symbolic thinking, which allows humans to creatively generate, manipulate and combine symbols (Van Huyssteen 2006:xvii). What Van Huyssteen finds interesting here is that Mithen argues that the cognitive capability of humans is directly linked to the development of art, science and religion, and so the naturalness of religious belief becomes apparent. Humans are spiritually embodied beings (2006:xvii).

Van Huyssteen notices that, like some evolutionary epistemologists, various scientists in paleoanthropology are not committed to a strictly Darwinian understanding of evolution. They hold that:

*...the potential arose in the human mind to undertake science, create art, and discover the need and ability for religious belief, even if there were no specific selection pressures for such abstract abilities during our past (Van Huyssteen 2006:43).*¹¹³

Furthermore, the notions of cognitive fluidity and the symbolic mind do not only show that humans have the capacity for art, science and religion, but explain that humans come to these activities transversally.

Van Huyssteen (2006:194) points out that Steven Mithen, like Wuketits, argues that the human mind:

¹¹² Steve Mithen is a Professor of Archaeology at the University of Reading. *The Prehistory of the Mind: The Cognitive Origins of Art and Science (1996)* and *The Singing Neanderthals: The Origins of Music, Language, Mind and Body* are amongst his most well-known publications.

¹¹³ Wuketits (1990:200) writes: "What can be known is not God (or any other alleged supernatural principle) but the origin of human thinking and reasoning about divine forces."

...had a long and fascinating evolutionary history that can be explained without recourse to *supernatural* powers.

Mithen, according to Van Huyssteen, aligns himself with those evolutionary epistemologists who argue for an understanding of the human mind as:

...a series of specialized *cognitive domains* or *intelligences*, each of which is dedicated to some specific type of behaviour, such as specialized models for acquiring language, or tool-using abilities, or engaging in social interaction (2006:194).

Mithen uses Howard Gardner's analogy of a Swiss army knife to help explain that the human mind has specific devices for coping with specific problems (Van Huyssteen 2006:195). These specialized intelligences focus on linguistic, music, logical-mathematical, spatial, bodily-kinesthetic, intra-personal and inter-personal problems respectively. However, Mithen himself moves beyond this analogy. He uses the analogy of the human mind as a *cathedral* (Van Huyssteen 2006:195). Mithen explains that the mind is built according to architectural plans encoded within the genetic constitution of an individual. Yet it is also influenced by the environment. Thus human minds are individually unique because of the genetic and environmental factors. This being said, members of the same species will share substantial similarities in their architectural plans¹¹⁴. Then, because of evolutionary processes and a changing environment, random changes occurred, which led to new types of problems in need of new types of thought processes (2006:195). In responding to these new problems, connections between these specific cognitive domains were made. This made it possible to apply multiple intelligences in solving specific problems. In other words, cognitive fluidity is the ability to draw on different cognitive domains simultaneously (2006:196).

Using the metaphor of a *cathedral*, Mithen explains the development of the human brain in three phases:

1. The human mind was dominated by a central *nave* of generalised intelligence;

¹¹⁴ This is reminiscent of Wuketits' explanation of *phylogenetical memorizing*.

2. The second phase adds multiple *chapels* of specialised intelligences, including the cognitive domains of language, social intelligence, technical intelligence, and natural history intelligence;
3. The last phase brings us to the modern human mind in which the *chapels* or cognitive domains have been connected by installing doors and windows in all the chapels. All this results in what Mithen calls *cognitive fluidity* (Van Huyssteen 2006:196).

According to Van Huyssteen, Mithen argues that with its *cognitive fluidity* the mind acquired the ability and passion to generate metaphors and analogies, resulting in an almost limitless capacity for imagination (2006:196). For the first time thought and information could flow freely among the diverse cognitive domains. Van Huyssteen (2006:196) explains Mithen's view:

Specialized intelligences no longer had to work in isolation, but a *mapping across knowledge systems* now become possible, and from this *transformation of conceptual spaces* creativity could now arise as never before.

Furthermore, Van Huyssteen notes Mithen's suggestion that human culture arose and evolved quickly with this new found fluidity (2006:196). Equipped with a mind capable of symbolic thinking, language became extremely important, serving as a vehicle for cognitive fluidity (cf. 2006:197). Social intelligence began to be invaded by non-social information through the mechanisms of language (2006:197). This is to say, humans now had access to the non-social world. It became possible to reflect on issues other than the interaction between individuals. In other words, the non-social world became part of human consciousness, according to Mithen:

This new consciousness/cognitive fluidity now enabled an integration of knowledge from separate domains that was impossible before (Van Huyssteen 2006:197).

Van Huyssteen explains that cognitive fluidity, allowing for the development of metaphor, led to the capacity for art, science and religion (cf. Van Huyssteen 2006:198). Regarding the nature of metaphor, Mithen makes an interesting point here:

...some metaphors and analogies can be developed by drawing on knowledge within a single domain, but the most powerful ones are those that cross domain boundaries. By definition these kinds of metaphors can arise only within a cognitively fluid mind (Van Huyssteen 2006:198-199).

Hence, Van Huyssteen suggests that cognitive fluidity illuminates the shared resources of human rationality – especially in theology and science. More than this – if rationality is part of what defines *Homo sapiens* – both of these two cultural phenomena are linked to what it means to be human. It is the capacity for symbolic thought that allows for religion and science. Therefore, it does not only make sense that these phenomena/reasoning strategies are closely linked, but that they will encounter similar issues or different dimensions of the same issue. A postfoundationalist notion of rationality, acknowledging the transversal character of rationality, anticipates the crossing of disciplinary boundaries. Furthermore, it assumes interdisciplinary conversation. With the insights generated by evolutionary epistemologist and the notion of cognitive fluidity, transversality becomes more than a philosophical epistemic value. Transversality is revealed to be rooted in the biology of the human mind. It is an embodied philosophical stance.

3.3 Summary

Van Huyssteen suggests that the postfoundationalist *splits the difference* between modern and postmodern approaches and supports a postfoundationalist approach by drawing on the work of many academics in diverse fields. In *Teologie as Kritiese Geloofsverantwoording* (1986) [Theology and the Justification of Faith (1989)] he argued for a theological methodology that could participate in public discussion. He suggests that this could be achieved only by focusing on epistemology and therefore engagement with philosophers of science was necessary. He turned to these philosophers and found that the classical model of rationality has been discredited and

that new models have raised to fill this void. Hence, Van Huyssteen then argued that theological methodology could (and should) adopt a different approach and suggests a few criteria for such a methodological change. However, while suggesting that a new model of rationality demands a new theological method, he does not articulate such a model or method as completely as in *The Shaping of Rationality* (1999). Only after coming into contact with postmodern thought does Van Huyssteen construct a comprehensive model of rationality, which he applies to theology and interdisciplinary conversation.

In *Duet or Duel* (1998) and *The Shaping of Rationality* (1999) Van Huyssteen comes to terms with postmodern approaches to rationality. He observes that while postmodernists have moved away from a modernist model of rationality, there is no uniformity in their approaches. Furthermore, Van Huyssteen distinguishes himself within the postmodern climate as a postfoundationalist and ultimately overcomes postmodern attitudes by re-describing modern and postmodern approaches as *foundationalist* and *nonfoundationalist* respectively. In this regard, foundationalists seek infallible, objective, universal foundations/rules according to which a claim/belief can be evaluated and determined to be rational. In contrast to this, nonfoundationalists argue that contextuality plays the most important role in the evaluation of claims/beliefs, thus promoting *relativity* as the foundation of rationality – still basing their model of rationality on foundation(s) namely, relativity. Ironically, nonfoundationalist approaches are turned against themselves and revealed to be no better than foundationalist approaches. All that nonfoundationalists achieved was the creation of many foundationalists islands. Therefore, interdisciplinary conversation becomes less possible, because there is no incentive to step out of one's context. Everyone is justified in doing and believing what they want, because no one outside of the context can offer any critique.

Suggesting a more productive and sustainable approach to rationality, Van Huyssteen argues for a postfoundationalist approach to rationality. Van Huyssteen explains that the postfoundationalist acknowledges the importance of contextuality, but also pursues truth that transcends context. Van Huyssteen achieves this by focusing on the epistemic

values employed in rational reflection. Transcending foundationalist and nonfoundationalist epistemic values, he argues for the *shared resources of human rationality: intelligibility* and *optimal understanding*, amongst others. Instead of universality, objectivity, infallibility or relativity, Van Huyssteen argues for:

The epistemic quest for *optimal understanding* and *intelligibility*; and the epistemic skill of *responsible judgement* involving *progressive problem-solving* (1999:12).

In this quest, assisting responsible judgement involving progressive problem-solving, Van Huyssteen argues for taking *rhetoric* and the notion of the *rational agent* seriously. Furthermore, he redefines the concept of *truth* and replaces *universality* with *transversality*. Supporting this postfoundationalist approach to rationality, Van Huyssteen turns to evolutionary epistemologists and paleoanthropologists. Hence, not only does Van Huyssteen argue for a postfoundationalist approach to rationality, he supports this approach by showing that it correlates with what is known about human cognition and its evolution. Van Huyssteen's postfoundationalist approach is not only a thoroughly substantiated philosophical stance, but is revealed to be harmonious with the concept of the embodied human mind.

Furthermore, Van Huyssteen argues that his postfoundationalist approach is conducive to interdisciplinarity – specifically between theology and science. Now it would be appropriate to ask how the implementation of this postfoundational approach operates in theological and scientific reflection, and what the implications would be for traditional interdisciplinary conversations. This will be the focus of parts two and three respectively.

Part Two - Postfoundationalist Theology

The nature, identity and purpose of theological reflection become central issues in a postfoundationalist approach, because the postfoundationalist employs epistemic values that defend the integrity of reasoning strategies and research traditions. Now, while the integrity of theological reflection is defended by a postfoundationalist approach, it also raises questions as to the foci, resources and heuristic devices of theology, as well as other modes of reflection – including scientific reflection. This plays an enormous part in how postfoundationalists practise their modes of reflection and participate in the common pursuit of optimal intelligibility.

The postfoundationalist aims to split the difference between modernist and postmodernist approaches by affirming contextuality, whilst pursuing the best possible reasons for hanging on to particular beliefs and convictions – an estimation of the truth. In order to do so, the postfoundationalist needs to move between modern and postmodern knowledge claims in search of these reasons. This process is essentially a *translating* activity, trying to rephrase knowledge claims according to the postfoundationalist's epistemic goals and values. The use of an analogy might illuminate this process.

One could understand reasoning strategies or disciplines as *mathematical equations* that aim to capture and explain reality, as it were. Modernists organised and divided their investigation of reality into separate disciplines or reasoning strategies. Moreover, they allowed each discipline the autonomy to gather information and build *equations* that would ultimately help in constructing a *meta-equation* or a *theory of everything*. These *equations* were to be constructed empirically according to epistemic values such as objectivity, universality and logic. In this process particular *equations* or disciplines became absolute, a goal unto themselves, defeating their goal of constructing a *meta-equation* – this applied especially to those disciplines that did not work from an empirical basis.

Each discipline was intended to explain the section of reality allocated to it as accurately and absolutely as possible. However, this project proved to be doomed from the start, because, as has been rediscovered in recent years, reality is not only multidimensional, but also multicontextual. Therefore, these disciplines could not keep to their allocated section of reality and started to incorporate sections of reality allocated to other disciplines into their own *equation*. This is especially true of disciplines such as cosmology, physics, evolutionary biology and theology – although theology would not be recognized as a necessary discipline for modernists, theologians engage diverse fields of reality. Thus these disciplines or *equations* became awkward and cluttered in trying to explain their respective sections of reality in the most absolute manner possible.

Postmodernists reacted to these awkward and cluttered equations by revisiting the original epistemic values employed to shape these disciplines. Objectivity and universality are among the epistemic values most criticised by postmodernists, who came to revere contextuality as one of the epistemic values in their reshaping and deconstruction of the equations constructed by modernists. Unfortunately, not attempting to rebuild these equations again, some postmodernists tend to leave them in ruins, leaving only relativism and half-truths behind. This is where Van Huyssteen's postfoundationalist approach becomes relevant.

Postfoundationalists agree with the postmodern project of revisiting the epistemic values employed in rational reflections, but intend to align themselves with constructive analysis. Therefore postfoundationalists, firstly, aim to refocus the epistemic scope of each discipline. This implies a distinctive move to re-establish the research boundaries/domain of each discipline and discuss the type or range of knowledge pursued. Thus, it is important to have clarity on what precisely each discipline reflects on and what kind of knowledge claims are appropriate within its boundaries. The resources, heuristic devices and experiential scope of each discipline are opened up for discussion, allowing philosophers of science to discuss an appropriate methodology for each discipline. It is a cleaning up and restructuring of the *equation* according to the epistemic goals and values discussed above. With each discipline or equation *simplified* – or, more precisely, *clarified* – interdisciplinary conversation becomes a possibility.

Secondly, postfoundationalists, recognizing that reality is multidimensional, as well as multicontextual, employ the epistemic value of *transversality*. Using the analogy of equations, the postfoundationalist recognizes that particular domains of reality are *variables* in the equations of multiple disciplines. Hence, interdisciplinary conversation is essential. It is these *shared variables* that often lead to conflict and hostility, especially in the discussion between theology and the sciences. However, this confusion is not unique to the theology-science debate. Conflicts concerning shared variables are encountered in all disciplines. This conflict can be seen in daily life as well, especially in political and cross-contextual discussions. Nonetheless, Van Huyssteen argues that in discussing these *shared variables* or *transversal points*, especially in the conversation between theology and the sciences, it is necessary to re-establish what these disciplines reflect on and what they intend to explain. Without a clear understanding of the disciplines engaged in the discussion, interdisciplinary conversation will lead absolutely nowhere.

Therefore the following chapter will discuss Van Huyssteen's rendition of theology's *equation* – focus, heuristic structures, resources, experiential scope and methodology.

Chapter Four – A Postfoundationalist’s Theology

4.1 Religious Experience

Van Huyssteen takes up the task of restructuring theology’s focus, heuristic structures and experiential scope; however, the important challenge lies in locating theological reflection in a legitimate interdisciplinary space.¹¹⁵ In “Rational Judgment and Responsible Choice: Some Reflections in Theology and Interdisciplinary” (1995), also part of the compilation *Essays in Postfoundationalist Theology* (1997),¹¹⁶ Van Huyssteen comments:

At the heart of this reconstruction of theology’s interdisciplinary location, we find the quest for the epistemic and nonepistemic values that shape the rationality of religious/theological, and of scientific, reflection (1997:12).

Van Huyssteen makes an important point when he suggests that the rationality of scientific reflection should be related to the rationality of theological reflection, rather than to religion in general, because both theological and scientific reflection share a common quest for intelligibility (1997:13). He remarks that relating the rationalities of theological and scientific reflection – as two academic, intellectual disciplines – rather than relating religion in general to science,¹¹⁷ makes interdisciplinary conversation much more plausible (1997:13). They share cognitive, evaluative and pragmatic resources. Both involve the epistemic skill of responsible judgement, as well as an ongoing process of progressive problem-solving (cf. 1997:13).

¹¹⁵ Van Huyssteen has been probing the nature of theological reflection, its heuristic structures and experiential scope throughout his whole academic project, but since *Teologie as Kritiese Geloofsverantwoording* (1986) [Theology and the Justification of Faith (1989)] he has been addressing the issue directly.

¹¹⁶ The compilation *Essays in Postfoundationalist Theology* (1997) will serve as the main source of Van Huyssteen’s arguments throughout this chapter.

¹¹⁷ Van Huyssteen (1997:203) points out that Gerd Theissen makes the same suggestion. Scientific knowledge can relate much easier to theological thought than the language of faith, because theological knowledge is also a thought-through, systematised form of belief.

Thus, theological reflection is the dimension of religion most relevant to the sciences when these two influential cultural achievements engage. Van Huyssteen writes:

...the interdisciplinary discussion between theology and the sciences is possible only because all religions, and certainly the Christian religion, presuppose views of the universe, of the nature of reality, of some form of *ultimate reality*, of human beings, and of the nature of morality (1997:13).

Theology and the sciences all reflect on reality. If this is the case, Van Huyssteen states that human experience and the epistemic goal of *experiential accountability* become pivotal (1997:14). This experiential accountability, according to Van Huyssteen, translates to *empirical adequacy* in scientific reflection and *experiential adequacy* in theological reflection (1997:14). Therefore, the epistemological focus and experiential scope of these disciplines becomes important. Furthermore, *experiential accountability* becomes significant in reflecting on any dimension of human experience. Hence, postfoundationalists need an appropriate understanding of experience.

Reflecting on human experience, Van Huyssteen starts by acknowledging that humans relate to their world epistemically through the mediation of *interpreted experience* (1997:15). If understood this way, one can say that theology and the various sciences offer alternative or complementary interpretations of human experience (1997:15). Furthermore, as with scientific language, religious and theological language always reflects the structure of interpreted experience (1997:15).

However, as Van Huyssteen observes, William Stoeger¹¹⁸ argues that the differences between theology and the sciences are more than just differences in objects of study, language or methodology (1997:16). The differences lie more deeply in the foci, experiential scope and heuristic structures. Van Huyssteen (1997:17) explains in the light of Stoeger's point that:

¹¹⁸ William R. Stoeger is an astronomer and theologian. He is a staff scientist at the Vatican Observatory.

...the focus of a discipline indicates the primary aspect of experienced reality to which a discipline gives attention, and which provides its primary point of reference.

The experiential scope indicates the type of data, phenomena or experience to which the discipline appeals, analyses and reflects on in arriving at and justifying conclusions, as well as testing and modifying models¹¹⁹. It is these deeply embedded differences that give rise to the differences in language, context and heuristic structures (Van Huyssteen 1997:17).¹²⁰ In agreement with Stoeger, Van Huyssteen argues that theological reflection will have to prove itself as a credible discipline:

For theology to take part in this process of critical synthesis and creative, interdisciplinary communication, it first has to show why it should be taken seriously as a discipline with its own focus, experiential scope, and heuristic structures (1997:17).

Van Huyssteen explains that the shift in experiential scope from scientific reflection to theological reflection moves through philosophical reflection. Philosophy, therefore, is the mediator between theological and scientific reflection. It is a shift from empirical observations, through the influence of the observer on the observation and the impact of the observation on the knower, to a reflection on the nature of the world. Van Huyssteen explains:

In the natural sciences, broadly speaking, the focus is on detailed, reproducible behaviour, on patterns of structure and behaviour of physical, chemical, and

¹¹⁹ Van Huyssteen (1999:187) adds: "...the object or aspect of reality which a discipline considers may often even overlap with other disciplines, but the experiential resources to which each appeal in reflecting on that object of study will be quite different".

¹²⁰ Stoeger (2010:180) writes: "We have just begun to see that physics and cosmology seem to be incapable in principle of supplying an adequate account of the ultimate ground of existence and order. They have been extraordinarily successful in uncovering and modeling in great qualitative and quantitative detail the structures and dynamisms of nature...But they cannot tell us ultimately why the whole system exists or why it is endowed with the particular order it manifests. In definitive sense, philosophy and theology cannot answer these questions either, at least not adequately. But they can and do propose accounts which provide consistent and intelligent preliminary answers to the question which are less inadequate than their competitors."

biological systems, as given by systematic and controlled observation and experiment and by precise measurement. Taking the next step, examining the limitations, horizons and presuppositions of the natural sciences, already implies a move into the realm of philosophical reflection. The focus of philosophy is essentially on the knower, on the experience of knowing, evaluating and acting, and on the structure of what is known. In the broadest sense of the word this experiential scope of philosophical reflection finally touches on the limits of our experience, and at this point philosophy begins to open itself to the scope of theological reflection. In both theology and the sciences we therefore indeed relate to our world epistemically through the mediation of interpreted experience... (1997:17-18).

According to Van Huyssteen, Ian Barbour¹²¹ argues that comparisons can be made between the structures of theological and scientific thought and therefore Barbour identifies *data* and *theory* as the most basic components of scientific reflection (1997:18). Van Huyssteen points out that Barbour concurs with Nancey Murphy, who also argues that *data* and *theory* play an important part in theological reflection¹²² (1997:18). Here, however, Van Huyssteen makes an important point:

...if our beliefs are the results of our interpreted experience, then the content of these beliefs...can never be merely given – immediately, or directly – in the experience itself (1997:19).

Believers form their beliefs through the mediation of interpreted experience. Therefore, the content of these beliefs should always be understood as interpretations or explanations of their experiences. Hence, it will be extremely difficult to distinguish between *data* and *theory* in theological reflection.

¹²¹ Ian Barbour is an American scholar on the relationship between science and religion. He received his BSc in physics, his MSc in physics and a PhD in physics. He earned a BDiv in 1956 from Yale University's Divinity School. Barbour gave the Gifford lectures and coined the term *critical realism*. He claimed that while the basic structure of religion is similar to that of science in some ways it also differs on some crucial points.

¹²² While Van Huyssteen agrees with this suggestion, he does not agree with Murphy's suggestion on what this theological data might be (1999:189).

Furthermore, Van Huyssteen explains that religious knowledge, like scientific knowledge, can never be directly experiential, as has been shown by Kuhnian and post-Kuhnian analyses (1997:19). All knowledge is mediated by interpreted experience. Consequently, this means that *religious experience*¹²³ is also mediated through interpreted experience and is always theory-laden (1997:19). Religious experience will always be contextually driven because

...the models and metaphors of the basic religious language of a specific religious tradition are always used to construct creatively (in continuity with the scope of the tradition) our religious beliefs (1997:19).

In other words, Van Huyssteen explains, religious beliefs are formulated in correlation with particular experiences and offer a way of understanding or explaining these experiences¹²⁴ (1997:19). Consequently, Van Huyssteen points out that what gives empirical meaning to scientific theory are scientific models and observation, and that what gives experiential meaning to religious beliefs are the religious models and the way they help to interpret experiences (1997: 19-20). Beliefs form models which are brought to experience in order to interpret it. Furthermore, beliefs are both brought to and derived from experience. Therefore, beliefs are formed through active engagement, not through passive observation. Van Huyssteen explains:

In this sense beliefs are both brought to experience and derived from it, and our interpreted experience thus becomes the matrix within which meaning and knowledge arise. Our world is thus experienced in direct relation to our active

¹²³ Proudfoot (1985:xi) explains the roots of the term *religious experience*: "...19th century students of religion read the myths and narratives about gods not as cosmological beliefs of history but as expressions of particular forms of religious experience...each of which highlighted some aspect of religious experience that was, in principle, available to all."

¹²⁴ Van Huyssteen had already commented on this in a previous article stating that religious experiences are determined by language and tradition, because no religious experience is pre-linguistic or pre-theoretical (1985:11). Carl Braaten (1988:302) observes that Pannenberg makes a similar suggestion: "In turning against a purely subjectivistic account of religion that explains it as nothing more than a matter of wishes, needs, compensations, neuroses, or illusions, Pannenberg's argument is an appeal to the self-understanding of the religious consciousness itself."

engagement with it, in terms of what phenomenologists have called *intentionality* (1997:20).

According to Van Huyssteen, this means that the knower acquires and employs knowledge in relation to what is known (1997:21). One thus comes to an experience with assumptions and leaves with changed or strengthened assumptions, but one cannot experience without active interpretation. Therefore, one never knows without engagement.

Coming back to religious experience, Van Huyssteen suggest it is safe to say that religious experience arises out of, and yet transcends, the physical, social, moral and aesthetic dimensions of reality¹²⁵ (1997:21). Therefore, he suggests, religious experience depends on complex sets of beliefs. But, he adds, while:

...an insistence on the immediacy of religious experience may often seem descriptively accurate, such a description will by itself, because of the interpreted nature of religious cognition, always be theoretically inadequate (1997:21).

Van Huyssteen then reflects on what theologians have come to call *fideism*.¹²⁶ He explains that while religious experience may often seem to be immediate and non-inferential, it is always dependent on concepts, beliefs and practices, because believers relate to their world through interpreted experience (1997:21). Therefore experiences are always theory-laden and tradition-specific (1997:21). In agreement with Wayne Proudfoot,¹²⁷ Van Huyssteen also suggests that a religious experience will always be

¹²⁵ Proudfoot (1985:xiii) explains the interest in religious experience: "Religion ought not to be reduced to science, metaphysics, or morality. Religion has its own integrity, and religious belief and practice were properly viewed as expressions of the religious dimension or moment."

¹²⁶ Proudfoot (1985:xiii) comments: "The turn to religious experience was motivated in large measure by an interest in freeing religious doctrine and practice from dependence on metaphysical beliefs and ecclesiastical institutions and grounding it in human experience." He adds that this was the explicit intent of Schleiermacher's *On Religion*. Proudfoot (1985:xiv) explains that Schleiermacher "...sought to convince his friends among the artists, poets, and critics of Berlin...that their sensibilities were more in tune with the genuine spirit of the religious life than much that went on in churches and synagogues."

¹²⁷ Wayne Proudfoot specialises in the philosophy of religion. His research interests include contemporary philosophy of religion, the ideas of religious experience and mysticism, classical and contemporary pragmatism,

identified as *religious* by referring to a whole network of concepts and beliefs, as well as to specific beliefs about how the experience is to be explained (1997:21-22). In other words, believers will identify experiences as religious because this helps to make sense of these experiences within the network through which they interpret the world. That is to say, beliefs function as explanations of experiences. Therefore, it is not the belief itself that is the focus here, but rather the network of which it forms part of and the way it functions within this network. To put it simply, what is of primary concern here is *how* believers believe,¹²⁸ because beliefs are formed by interpreting experience through the lens of pre-existing belief networks. Van Huyssteen writes:

...religious experience...is always already interpreted in terms of the pre-existing patterns of the belief-system we are already committed to (1997:22).

Van Huyssteen explains:

This is also the reason why the impact of a religious experience can best be accounted for by the fact that the criteria for identifying an experience as religious are always going to include reference to a very specific explanatory claim (1997:22).

and modern Protestant thought. He teaches courses on eighteenth and nineteenth century European religious thought, theories and methods for the study of religion, philosophy of religion, and pragmatism and religion.

¹²⁸ William James was a pioneering American psychologist and philosopher, who was trained as a physician. He wrote influential books on the young science of psychology, educational psychology, the psychology of religious experience and mysticism, and on the philosophy of pragmatism. His Gifford Lectures were published in 1903 as *Varieties of Religious Experience*. William James suggested in his Gifford Lectures that *feeling* is the deeper source of religion and that philosophical and theological formulas are secondary. According to Proudfoot, James gives three reasons for this suggestion, first, it is the felt quality of the experience that is expressed, because (1985:158), "...religious experience seems to the subject to be immediate rather than the result of conscious thought and inference". Secondly, he refers to the authority of the experience and explains that "People are not often moved by intellectual arguments about religion. Religious beliefs and doctrines reflect deeper sources in passion and practice" (1985:158). Thirdly, "James contends that a survey of various religious traditions will discover a great variety of concepts and beliefs, but the feelings and the conduct that underlie that intellectual diversity remain constant" (1985:158). Therefore, it would be more appropriate to examine *feeling* and *practice*, rather than *beliefs* and *doctrines*. Taking this into account, Proudfoot (1985:183-184) writes: "A religious experience is an experience that is identified by its subject as religious, and this identification must be based, not on the subject matter or content of the experience, but on its noetic quality (epistemic value) or its significance for the truth of religious beliefs.

Identifying an experience as a religious experience is the only way in which the experience can make sense within the pre-existing network of interpretation.

Furthermore, Van Huyssteen explains that humans have access to experience through language (1997:22). However, experience in turn predetermines linguistic expression. All this considered, Van Huyssteen suggests this bidirectional relationship between language and experience is exactly what a postfoundationalist notion of rationality intends to facilitate, because it fuses hermeneutics and epistemology (1997:22).

This leads Van Huyssteen to follow Proudfoot in arguing that the distinguishing mark of religious experience would be the individual's judgement that the experience, and the beliefs that constitute the experience, can only be accounted for in religious terms (1997:23). This, however, is not a simple statement at all.

True to the insight and depth one has come to expect from Van Huyssteen in his analysis of human rationality, he poses an unexpected question. He does not ask what the reasons might be for interpreting an experience religiously. There could be any number of reasons, historical, psychological, cultural or epistemological (1997:23). Van Huyssteen goes one step deeper and asks why one would have to understand what is experienced in religious terms in the first place (cf. 1997:23). Van Huyssteen explains that identifying an experience as religious requires an enormously complex evaluation of one's commitments, the tacit value judgments that one brings to the experience, as well as the contextual conditions, network of concepts, theories and beliefs that may support the plausibility of deeming an experience religious (1997:23). Drawing on his study of human rationality and his postfoundationalist notion of human rationality, Van Huyssteen makes this wonderfully clear:

...those of us who identify our experience in religious terms are seeking the best available explanations for what is happening to us (1997:23).

Thus, Van Huyssteen answers the question - *why identify an experience as religious?* - with a clear phrase: the quest for intelligibility (1997:23). He explains that theological

reflection, like all human reflection, is in search of intelligibility and this should be done in accordance with the key epistemic skill of responsible judgement (1997:23). Furthermore, Van Huyssteen adds, theologians, like scientists, may also claim reasons for their theory choice through an ongoing process of progressive problem-solving. This leads Van Huyssteen to make a significant observation:

Locating theology within the context of interdisciplinary reflection is possible especially because religion and science, within the context of our typically Western culture at least, are both of the same interdisciplinary intellectual conceptual structure. This explains why modes of critical thought that are at home in contemporary science, contemporary culture, and common sense should indeed have a bearing in our assessment of the plausibility or rationality of religious belief (1997:23).

Religious belief should also be critically analysed and justified, because there is no difference between religious and scientific claims. The task of theologians, like the task of scientists, is to reflect on the adequacy of truth-claims. Religious beliefs, like scientific truth-claims, are hypotheses in the striving for intelligibility and better estimates of the truth.

What is important here is that while Van Huyssteen locates theological reflection in the context of interdisciplinary research, he also takes a position against fideism (1997:23-24). He relates this approach in the philosophy of religion and philosophical theology to Wittgenstein's language games (1997:24). Van Huyssteen explains that a fideistic approach functions as a protective strategy because it does not take intersubjective evaluation seriously (1997:24). Postfoundationalists take intersubjective evaluation extremely serious and, by fusing epistemology and hermeneutics, bypass the issue of fideism. This cannot be said of foundationalists or nonfoundationalists. Van Huyssteen comments on the tendency of fideistic theologians to neglect or simply ignore criteria for evaluating the adequacy of religious beliefs:

Foundationalist as well as nonfoundationalist attempts to deal with the justification of theory-choice in philosophical theology have typically resulted, on the one hand, in inferential procedures that completely lose the experiential basis of religious reflection or, on the other hand, in nonfoundationalist attempts to evade the issue of the justification of religious belief altogether. This fideist view that religious beliefs are commitments that as such, cannot be justified has become especially popular in some forms of contemporary postmodern and postliberal theologies (1997:23-24).

Van Huyssteen explains that fideists come to commit to specific unquestionable beliefs that need no justification. It is a protective strategy which leads to blind belief in a specific network of beliefs:

Fideism, as a blind, uncritical commitment to a set of beliefs, could of course be at the heart of both foundationalist and nonfoundationalist models of rationality. What happens in the fideistic move...is that an ultimate faith commitment in, for instance, the Christian God, is first isolated in a very definite protective strategy and then equated to a commitment to a very specific set of foundational beliefs. Often, however, fideism and nonfoundationalism also collapse into one another when, for instance, religion, morality, or science would each claim to have internal criteria of intelligibility peculiar only to itself (1997:24).

Van Huyssteen also draws attention to the insights of Nancy Frankenberry¹²⁹ on the issue of fideism. According to Van Huyssteen, she has identified some assumptions in theological and philosophical fideism:

1. Forms of life, when considered as a whole, are not subject to criticism;
2. Each mode of discourse is in order as it is, for each has its own criteria and sets its own norms of intelligibility, reality, and rationality;

¹²⁹ Nancy Frankenberry is a specialist in philosophy of religion, she teaches courses having to do with modern religious and anti-religious thought; reason and religious belief; science and religion; and gender and religion.

3. There is no Archimedean point or common ground in terms of which a philosopher can relevantly criticize whole modes of discourse;
4. Commitment is prior to understanding, intercontextual criteria take precedence over extracontextual considerations, and confessional functions can substitute for and finally supersede cognitive meaning (1997:24-25).

These assumptions help to illuminate the fideistic move and Van Huyssteen takes his cue from this. If theologians and scientists know the world only through interpreted experience and there are shared resources of human rationality, then it becomes impossible to oppose the rationality of religion to that of science in the way that the fideistic theologians would need do in order to hold on to their sheltered commitments (1997:25). Van Huyssteen comments further:

...the fideistic strategy is simply not capable of consistently evading the issue of truth or falsity of religious discourse once it recognizes that truth claims made by different sets (and even more so, different religions) often conflict with one another (1997:25).

Van Huyssteen explains that the rationale of religious networks is not completely unique, because they still draw on the shared resources of human rationality:

...the notion that religious systems have their own autonomous principles and their own unique decision procedures not only is a denial of the interdependence of religious cognition and other forms of human cognition, but also is fundamentally inconsistent with a postfoundational holist epistemology, which claims a network of interrelated, intersubjective or transcommunal criteria for its statements (1997:25-26).

Hence, Van Huyssteen comments that an uncritical retreat to a fideistic commitment casts an unfavourable light on theological reflection and seriously discredits the epistemic status of theological reflection in the contemporary interdisciplinary conversation (1997:25).

Furthermore, fideists display a crucial epistemic shortcoming when failing to explain why they choose one network of belief over another and why some networks offer better, more adequate and plausible explanations than others (Van Huyssteen 1997:26). This is where fideists reveals their prior commitment to beliefs that are a given and do not need any justification.¹³⁰ Van Huyssteen (1997:25) also states that, according to Roger Trigg, later Wittgensteinian fideism slides into conceptual relativism quite easily.

On the other hand, the postfoundationalist can easily explain why some networks are better than others and why they offer better explanations. One word: intelligibility. Van Huyssteen writes:

...interpreted experience is always contextual and as such determined – epistemically and nonepistemically – by living and evolving traditions (1997:30).

Van Huyssteen explains that postfoundationalists will agree that there are no meta-criteria by which to evaluate the quality of different traditions, but in the constant search for intelligibility, which includes experiential or empirical adequacy, it is possible to judge one tradition as generating higher levels of intelligibility than another (1997:30-31).

Such an evaluation is possible, because the postfoundationalist understands religious language and theological theories as human conventions, constructed through the mediation of interpreted experience (Van Huyssteen 1997:26). Van Huyssteen explains that these human conventions:

...are closely interwoven with the way we relate to our world through the mediation of interpreted experience. They are the results of creative intellectual

¹³⁰ Van Huyssteen (1997:26) notes Frankenberry's point: "...the work of some fideists is dominated by the same conservative attitudes that also characterize some forms of evangelical Christianity: in the end, both groups embed their arguments in assumptions that reinforce dogmatism and serve to insulate from criticism precisely those already established standard frameworks, or activities that have come to be the most controversial in society."

construction, and along with the commitments they serve to express, they too should be examined and critiqued (1997:26).

Traditions can claim theoretical and experiential adequacy through component theories and an increasing range of solved empirical and conceptual problems (Van Huyssteen 1997:31). This theoretical and experiential adequacy does not indicate the truth of a tradition/network, but rather offers criteria for evaluating and choosing responsibly between traditions/networks of thought (1997:31).

This, however, raises the question: if religious language and theological theories are human conventions, does this mean that religious experience is also human convention and there are no direct experiences of God, but only interpreted experiences expressed in a theistic manner (Van Huyssteen 1997:27)?

Van Huyssteen points out that Frankenberry approaches this question by first asking what is understood by the word *experience* (1997:27). Van Huyssteen notes that Frankenberry suggests broadening the scope of what is understood as experience and, in doing so, she broadens the scope of what can be regarded as religious experience (1997:27). She argues that sensing, perceiving, willing, doing, wondering, feeling, inferring, judging and imagining should all be understood as modes of experience. This implies that religious experience is more than seeing or hearing the divine. Van Huyssteen comments that religious experience now becomes much more than what one would traditionally describe as a God- encounter (1997:27).

Reflecting on religious experience, Van Huyssteen engages with the work of Jerome Stone, who explains that one's definition of *experience* will involve one's definition of *meaning* and finally one's definition of *religious cognition*:

...one's concept of experience will indeed entail one's concept of meaning, which in turn will determine one's concept of religious cognition (1997:27).

According to Van Huyssteen (1997:27), Polkinghorne¹³¹ also contributes to this discussion by writing that:

The notion of a personal God may serve to make sense of...great swathes of experience that without this notion would simply baffle us.

In other words, without the notion of a personal God, there would be many experiences that remain unintelligible. Belief in a personal God may be experientially more adequate.

According to Van Huyssteen (1997:27), Elizabeth A. Johnson suggests there is an awareness of mystery in religious experience:

...at the root of all religious imagery lies an experience of the mystery of God, potentially given to us in all experience where there is no exclusive zone, no special realm, that alone may be called religious. In this way the historical world potentially becomes a sacrament of divine presence and activity, even if only as a fragile possibility.

Van Huyssteen draws on his postfoundationalist notion of human rationality and its quest for intelligibility, and comments that humans across the world and throughout all times have found the notion of God helpful in rendering the world intelligible. Van Huyssteen comments that one can:

...point to the fact that throughout history, and in various cultures...human beings have found it helpful, if not necessary, to make room for a transcendent interpretation of the natural dimensions of our world and ourselves (1997:28).

¹³¹ Sir John Polkinghorne is an Anglican priest, the President of Queens' College, Cambridge University, and former Professor of Mathematical Physics at Cambridge. Polkinghorne resigned his chair in physics and studied for the Anglican priesthood. After completing his theological studies and serving at parishes, he returned to Cambridge. During that same time period, he wrote a series of books on the compatibility of religion and science which include his Gifford Lectures *Science and Christian Belief: Theological Reflections of a Bottom-up Thinker* (1994). He is a critical realist and argues that science and religion address different aspects of the same reality.

Van Huyssteen explains that this is exactly where experiential accountability comes into theological reflection (1997:28). It would seem that it makes sense within specific cultural contexts to understand the world and humans through an awareness of a relation between humans and the divine. Van Huyssteen makes an intriguing and important observation:

Our commitment to a mind-independent reality called God thus would arise not only *from* experience, but in a very specific sense also *for* experience, that is, for making optimal sense of our experience (1997:28).

Van Huyssteen suggests that the false choice between *naturalism* and *supernaturalism* is transcended in the postfoundationalist's theology, because of the transactional and relational nature of interpreted experience (1997:28). Van Huyssteen explains that religious experience arises out of social, ethical, moral and aesthetic dimensions, yet it transcends them, and the postfoundationalist has a particular understanding of this creative interaction (1997:28). Postfoundationalist theologians acknowledge that in this creative interaction between the social, ethical, moral and aesthetic dimensions one would find an element of mystery. Van Huyssteen suggests that the acknowledgement of this mystery is unique to theological reflection. He elaborates:

The postfoundationalist choice for the relational quality of religious experience thus opens up the possibility of interpreting religiously the way that we believe God comes to us in and through our manifold experiences of nature, persons, ideas, emotions, places, things, and events. And because of this religious quest for ultimate meaning, each dimension and context of our experience contains within itself not just a potential element of minimalist transcendence, but an element of mystery, which when responded to may be plausibly said to carry with it the potential for divine disclosure. With this we have also arrived at possibly the most crucial and telling difference between theology and the sciences. This element of mystery is unique to the experiential scope and focus of theology and very

definitely sets it apart from the very focused empirical scope of especially the natural sciences (1997:29).

However, this mystery should not be wrongly understood as a lack of sufficient information, but rather as an element of perpetual inexplicability¹³² in the complex dimensions of human experience (Van Huyssteen 1997:29).

Still, one cannot leave it at that and retreat to a mysterious theology incapable of contributing its insights to the interdisciplinary conversation. While acknowledging that there might be some inexplicable dimensions to human experience, the postfoundationalist needs to find a way of rendering human experience intelligible. This brings Van Huyssteen back to the experience of knowing and the multifaceted, interdisciplinary dimensions of this experience. He argues that a postfoundationalist notion of human rationality creates a safe space for reflecting on the complexities of human experience (1997:29).

In *The Shaping of Rationality* (1999) Van Huyssteen suggests that humans reflect on what they perceive as real aspects of their lives through the structures and methods of intellectual and academic disciplines (1999:181). Bearing this in mind, Van Huyssteen explains that theology and all the various sciences not only share this quest, but also share in the cognitive, evaluative and pragmatic resources of human rationality (1999:180). Furthermore, networks or traditions have been created through which to interpret and approach experiences. Consequently, rational reflection is embedded in networks and traditions constructed prior to these reflections (1999:182). Van Huyssteen cites Mary M Solberg, who expresses this clearly:

Knowledge is situated: shaped, limited, and specified by the location of knowers, by their particular experiences, by what works for them and what society permits to work for them, by what matters to them and to other knowers with more (or

¹³² Van Huyssteen (1997:29) observes: "It is...the element of mystery in all religious reflection that has often led to claims that theology and the sciences, if not in conflict, should at least be seen as incommensurably different paradigms from one another."

less) power, by what they trust and value and whether their objects of trust and value carry any weight in their surroundings (Van Huyssteen 1999:179).

The postfoundationalist will completely agree with this statement, since it is the rational beliefs of rational agents that are contextual and not rationality itself. It also implies that knowledge is always contextual, because no knowledge is possible without the rational agent. Van Huyssteen notes that Calvin Schrag also agrees with this and adds that modernists tended to dismiss narrativity in their preoccupation with subject-oriented critique (1999:182). Postmodernists, on the other hand, tend to lose sight of the moment of evaluative criticism precisely through their enchantment with narrativity. Van Huyssteen makes the point that

...through our story telling we articulate the sense of lived-through historical experience as we attempt to achieve both a self-understanding and an optimum understanding of our social and natural worlds (1999:182).¹³³

This leads Van Huyssteen to ask about the epistemic role of experience, because, as the scientist needs empirical adequacy, the theologian needs experiential adequacy (1999:183). Furthermore, interpreted experience becomes the matrix through which meaning and knowledge arise,¹³⁴ therefore elevating the importance of experiential adequacy (1999:191). Turning to the insights of Roger Trigg¹³⁵ and Mikael Stenmark, Van Huyssteen reflects further on this issue.

¹³³ This said, Van Huyssteen (1999:184) suggests a postfoundational reading of Ian Barbour's statement: "If we seek a coherent interpretation of all experience, we cannot avoid the search for a unified worldview." Van Huyssteen, however, would rather phrase this as: an interdisciplinary worldview is achieved through a high degree of transversality.

¹³⁴ Van Huyssteen (1999:191) refers to Merleau-Ponty, who was the subject of his Master's thesis entitled *Truth and Relativism in the thought of Maurice Merleau-Ponty* (1966): "Our world is thus experienced in direct relation to our active engagement with it, in terms of what phenomenologists have called *intentionality*."

¹³⁵ Roger Trigg is Senior Research Fellow and Academic Director of the Centre for the Study of Religion in Public Life. From 2007-11 he has also been Co-Principal Investigator on a research programme funded by the John Templeton Foundation, working with the Oxford Centre for Anthropology and Mind, part of the Institute of Cognitive and Evolutionary Anthropology.

Van Huyssteen observes that Stenmark stresses the importance of knowing the function and content of a discipline or domain of beliefs before evaluating the experiential adequacy and standard of rationality of said discipline (1999:199). The reason for this, Van Huyssteen states, is that the rational beliefs formed in a specific discipline are always relative to the domain and practice of that specific discipline (1999:199). For example, religious belief helps human beings deal with existential or ultimate questions, as well as moulding an approach to life or, as Stenmark puts it, *views of life*.¹³⁶ Van Huyssteen elaborates on Stenmark's point:

These comprehensive systems of belief have more than a theoretical or explanatory function, and go beyond the intellectual dimension of our lives in shaping the way we live our lives on all possible levels...the maintenance of a *view of life* is not in any way optional, and our only choices pertain to whether that view will be a form of secular or religious believing (1999:200).

In this sense, a religious *view of life* will involve a consciousness of the sacred as something more real and transcendent than everyday life¹³⁷ (1999:200). In other words, the act of religious believing begins and ends with how successful a religious *view of life* is in dealing with the most profound existential questions raised through one's experience of oneself and the experienced world (cf. 1999:200). Religious beliefs in one's *view of life* are answers to existential questions. Therefore, one's acceptance of a religious *view of life* is an existential choice. Van Huyssteen explains:

The rationality of theological reflection therefore relates directly to the reasonableness of the choices that people make in living a life of faith in response to such existential questions (1999:200).

¹³⁶ A *view of life* refers to the matrix through which one interprets oneself and the world, be it religious or metaphysical. A *view of life* is the complete (and coherent) network of commitments, beliefs and convictions through which one approaches life.

¹³⁷ Van Huyssteen (1999:200) quotes Stenmark: "...this is certainly true for the Christian faith too: it fundamentally shapes one's picture of other human beings, it shapes values, regulates action, and expresses some consciousness of and trust in the sacred. Religion is thus constituted by those modes of thinking, speaking, feeling, and acting that express a consciousness of and a trust in what is seen as the sacred or the divine."

However, Van Huyssteen adds:

...this kind of comprehensive choice for a religious *view of life* is not at all similar to an irrational fideist retreat to specific sets of doctrines in which we may stubbornly believe (1999:200).

Van Huyssteen makes the point that it is important to realise that religious beliefs should not be used or understood as just answers to theoretical questions, but rather as responses to existential questions (1999:200-201). These beliefs are a specific cognitive choice and should involve responsible judgement for which one is rationally and experientially accountable. Van Huyssteen comments that this:

...is never just a matter of making up one's mind about whether certain beliefs are true, but implies a choice for how we actually should live our lives and be transformed by a comprehensive religious vision (1999:200).

This leads Van Huyssteen to conclude that the focus of theological reflection is religious experience and the *views of life* within which they function:

In theology, as a critical reflection on religious experience, we finally reflect critically on the cognitive content of our religious beliefs, and how they express more comprehensive networks of religious beliefs, often deeply embedded in tradition, that have helped us come to grips with our existential experiences of suffering, death, guilt, and meaninglessness, but also of peace, hope, and reconciliation. In the long history of theology we have developed a reasoning strategy that helps us to *rationally* make sense out of these experiences and the way we interpret them, to understand them optimally, and to choose theories for solving our religious problems in the best possible ways available to us (1999:201).

Van Huyssteen makes it very clear that this should not be understood to mean that the rationality of theology is in any way unique and esoteric. However, he explains the postfoundationalist can acknowledge that:

...reasoning strategies (precisely because of their different experiential resources and heuristic structures) can develop their own rational standards without capitulating to nonfoundationalist relativism and isolationism (1999:201).

Consequently, Van Huyssteen argues that theological reflection grows out of religious *views of life* (1999:201). Therefore, it is not the rationality of theology and the sciences that make them different, but rather their points of focus (i.e. *views of life*) that differ. Hence, it is the standards of rationality that differ for theological and scientific reflection, not rationality itself, because the standards of rationality in both theology and the sciences cannot be appropriately formulated without stating who the rational agents are and what their concrete situation is (1999:202). Furthermore, Van Huyssteen explains:

...because our experiences differ, it will be normal, natural and rational to differ even when we argue within broadly the same *views of life* (1999:202).

Nevertheless, Van Huyssteen is convinced that:

...rationality lies across and links diverse reasoning strategies...we can step forth into cross-contextual discussion with personal convictions that we find rationally compelling, and at the same time be compelled to open our strong convictions up to critical evaluation in interdisciplinary conversation (1999:202).

This said, it is still not clear, keeping *views of life* in mind, what exactly distinguishes a religious experience from an existential experience. In “Commentary and Response - J. Wentzel van Huyssteen: Refiguring Rationality in the Postmodern Age” (2000) Jerome A. Stone asks a critical question: What is religious experience? Stone answers himself:

Van Huyssteen identifies religious experience either in terms of its depth and interpretive power in relation to other experiences or as being identified by the believer as religious (Stone 2000:421).

Stone (2000:421) cites Van Huyssteen:

The religious dimension of our experience...transcends other experiential dimensions by providing...the “hinge” by means of which they are integrated, and through an ultimate commitment are endowed with deeper meaning...The distinguishing mark of religious experience...would therefore be the individual’s judgement that the experience...can only be accounted for in religious terms...Those of us who identify our experience in religious terms are in fact seeking the best available explanations for what is happening to us.¹³⁸

Nonetheless, Stone suggests that Van Huyssteen needs to clarify more vigorously what he means by *religious experience*, *explanation* and *redescription*, since Van Huyssteen suggests that the best explanation of religious experience is a theistic explanation (Stone 2000:425). This is an ongoing disagreement between Stone and Van Huyssteen. While Stone applauds Van Huyssteen’s postfoundationalist approach, they are in perpetual disagreement on whether the best explanation is to be found in a theistic or naturalistic outlook (Stone 2000:424). In Stone’s opinion, Van Huyssteen has not convincingly argued for a theistic outlook as the best available explanation.

Responding to Stone in “Postfoundationalism and Interdisciplinarity: A Response to Jerome Stone” (2000) in the same journal, Van Huyssteen claims that he does not argue that theism¹³⁹ is the best possible explanation, but rather:

¹³⁸ In *Theology and the Justification of Faith* (1986) Van Huyssteen defined a religious experience as an experience of the presence of God (1986:167). However, Van Huyssteen no longer defines religious experience and leaves this evaluation to the agent who experiences. Now Van Huyssteen attempts to understand why the agent would identify an experience as religious and how the theologian should reflect on such experiences.

¹³⁹ Proudfoot (1985:189) makes an interesting remark in this respect: “It is important...to recognize that the concept of religious experience retains echoes of its origin in a theistic context and of the assumption that a religious experience is one that cannot be completely accounted for in naturalistic terms.”

...in our interpersonal and interdisciplinary dialogues we should through good judgement, rhetoric, and discernment point to the best available reasons why certain notions – or non-notions – of God would be experientially more adequate to the way in which specific religious people live and practice their daily lives of faith within the context of concrete traditions (2000:435).

Furthermore, Van Huyssteen comments that both Stone and he are rationally justified in holding onto their respective beliefs in naturalism and the Christian faith in a postfoundational approach. However, at the same time they have to carefully manage this *dissensus* at exactly the important points where their arguments and worldviews transversally intersect (2000:436).

Van Huyssteen illuminated an important aspect of his approach to religious experience in a previous response to Stone's *neo-naturalism*. In "The Realist Challenge in Postmodern Theology: Religious Experience in Jerome Stone's Neo-Naturalism" (1994), also published in *Essays in Postfoundationalist Theology* (1997), Van Huyssteen refers to Stone's book *A Minimalist Vision of Transcendence: A Naturalist Philosophy of Religion* (1992). According to Van Huyssteen, Stone clears a space for a renewed interest in religious experience and reveals the weakness of foundationalism and fideism in religious epistemology in this book (1997:92). Stone aligns himself with radical empiricism in religious thought as a third option to foundationalism or anti-foundationalism. Furthermore, Van Huyssteen (1997:93) refers to Stone's own description of his position:

...not as confident as the humanists in their anti-theism, but also not able to make the affirmations of most theologians.

Van Huyssteen notes that Stone attempts to indicate how

...the problems of faith, theism, and realism look different when approached from the standpoint of naturalism, and how an empiricism, generously conceived, can form the basis of a public ecotheology (1997:92).

In other words, Stone wants to show that it is possible to retrieve the *experience of transcendence* in secular life and therefore attempt to generate new metaphors for transcendence (Van Huyssteen 1997:93). Along with this, Stone re-envision the object of religious experience (cf. 1997:94). Van Huyssteen explains:

For Stone the divine (or God) is the collection of situationally transcendent resources and continually challenging ideal of the universe, that is, the sum of the worthy and constructively challenging aspects of the world (1997:95).

In Van Huyssteen's view (1997:95), Stone consequently tries to redefine what might be meant by the word *God*. In this sense, a minimalist model of the divine equates to

...a tentative conceptualisation of what might be affirmed of God when we cannot make a full ontological affirmation of an ultimate reality anymore (1997:93).

This is an intriguing project and might be exactly what many *non-religious*¹⁴⁰ people try to do. The reason why Stone refers to this as a *minimalist vision of transcendence* is because it requires that all *re-descriptions* would have to stop short of affirming any ontological unity. Stone seeks a third option beyond theism and secular humanism, and therefore raises the question of what sort of reality might correspond to our thoughts about God (Van Huyssteen 1997:94). As such, Stone rejects extravagant conceptual

¹⁴⁰ With this term I refer to people who would call themselves spiritual or believers, but who do not explain their faith using metaphors from the traditional religions. In "Building Effective Bridges to Culture: God and Redemption in the work of Richard Wagner" (2007) in a festschrift for George Newlands, Van Huyssteen reflects on Richard Wagner's use of Christian symbols in his music. Van Huyssteen suggests that the overly abstract nature of some contemporary doctrinal developments may make them impenetrable *invisible fortresses* that we construct ourselves and that these constructions may close off the living experience of God to some (cf. Van Huyssteen 2007:26). Van Huyssteen (2007:5) refers to Wagner's thinking and what Wagner's work provokes: "It...raises the serious question about the kind of God we believe in, or rather, the kind of abstract doctrines that we have constructed about God and now believe in." Wagner's idea of the divine, according to Van Huyssteen, was *non-theistic* (2007:18). Furthermore, Van Huyssteen (2007:20) explains that "...for Wagner, both Jesus and Hafiz transcended their religious heritages and each found answers that were not constrained by any one particular religion." On a similar note, Van Huyssteen (2007:26) suggests that "...our embodied neurological, psychological, aesthetic, and religious propensities can actually converge in a richer understanding of non-traditional Christian spirituality." Interestingly, Van Huyssteen (2007:27) comments that "Wagner's musical dramas today continue to show us that artistic creations and aesthetic experiences do indeed continue to function as tools for the questioning of traditional forms of religious belief and practices. This may take us on a rich rediscovery of the many faces of religious experience and the chance to experience the Holy through the concreteness of everyday life, and through our own embodied consciousness."

claims of maximalist theisms, including any claims of a transcendent unity, as Van Huyssteen explains:

What is affirmed is that there are real creative processes transcendent in a significant sense to our ordinary experience, and that there are ideals that we may call transcendent (1997:94).

This implies that transcendent resources are not just signs of the divine, but that moments of extremity and of despair are real moments of transcendence themselves (1997:94-95). There are no moments that bear grace and point to the divine; these moments are gracious/divine in themselves.

Van Huyssteen explains that, for Stone, one such ideal that is divine is the pursuit of truth:

...truth is an ideal never fully attained, but, like a kind of *focus imaginarius*, functions as a continual demand that we push toward (1997:95).

Stone suggests that transcendent ideals such as *the pursuit of truth* can function in one's life much like a traditional God-concept. One would just need to stop short of affirming an ontological unity (Van Huyssteen 1997:95).

Van Huyssteen, in turn, has no problem with such a *minimalist approach to transcendence* and Stone's theory of experience (1997:96). The issue for him here is that epistemic decisions are made in advance that in the end determine the boundaries between maximalist and minimalist forms of theism. He explains that Stone suggests that the *transcendent* and *God* share the same reference to transcendent resources and challenges if minimally understood; therefore:

...the transcendent may in reality be more than what our experience shows...There is, however, not enough support for these affirmations for us to make them publically responsible assertions, nor to take them as the basis for personal faith (1997:96).

Van Huyssteen voices his concern:

“What I am...struggling with in trying to understand this minimalist vision of transcendence is how such a generic concept of the divine, without at some point being immersed in the language of a living religious tradition, can avoid becoming not only a-contextual (even a-historical), but also too remote, too empty, in a word, too generic (1997:96).

In other words, Van Huyssteen justly asks how such an approach would avoid becoming a *psychological self-actualization* (1997:97).

Stone replies by suggesting that the word *God* adequately understood refers to inner-worldly transcendent resources (Van Huyssteen 1997:97). Thus, Stone suggests that a naturalist stance be taken in understanding the word *God*. On this point Van Huyssteen remarks:

...the belief in the inadequacy of natural explanations to account for all our experience may be more invariant across cultures than the belief in any specific God (1997:97).

According to Van Huyssteen, the problem here is that Stone seems to have made a prior commitment to a naturalist metaphysics (1997:97). Stone is not asking what the most experientially adequate understanding of the divine might be, but is rather trying to construct an understanding of the divine within a naturalistic metaphysics. Furthermore, according to Van Huyssteen, Stone does not show why a maximalist theism fails:

...but only why highly restricted, already problematic, arguments for maximalist positions on theism fail (1997:97).

Interestingly, as Van Huyssteen points out, Stone does acknowledge that major religious traditions do provide clues to the notion of the transcendence that are useful (1997:97).

At the same time, Van Huyssteen observes, Stone tries to construct a fallibilist epistemology. Stone opts for an approximation of truth and takes pragmatic adequacy as the only guide (1997:99). Van Huyssteen (1997:99) cites Stone:

The realities which we dimly perceive and the theories which we develop concerning them, when subject to appropriate scrutiny, are worth the risk of living by, despite our propensity to error and fantasy.

Van Huyssteen explains that Stone's approach is a self-critical, culturally aware empiricism and Stone's rendition of a move beyond foundationalism, relativism and cultural provincialism (cf. Van Huyssteen 1997:99). Van Huyssteen writes:

Stone develops a theory of experience (and of religious experience) in which experience is seen as a transaction, a transaction between *self* (as a combination of social choices and genetic legacies) and *world* (as both construct and reality) (1997:99).

Stone argues that experience is a series of interpretations that is informed and restricted by past experience, which implies that present experience is rather heavily constructed by past experience (Van Huyssteen 1997:100). Consequently, experiential adequacy becomes an important epistemic value in the shaping of theological reflection, a view Van Huyssteen agrees with completely (1997:102).

Still, the question remains for Van Huyssteen:

Can a minimalist naturalistic view, which eschews theistic explanation for religious experience, indeed provide adequate explanation for what is experienced as the essentially *religious* in religious experience?¹⁴¹ (1997:100).

¹⁴¹ In his Gifford Lectures (1902), published as *The Varieties of Religious Experience* (1903), William James (1903:518) writes: "The world interpreted religiously is not the materialistic world over again, with an altered expression; it must have, over and above the altered expression, a natural constitution different at some point from that which a materialistic world would have. It must be such that different events can be expected in it, different conduct must be required."

It is here that Van Huyssteen's approach to religious experience is profoundly illuminated. While Van Huyssteen acknowledges that believers use metaphors to make sense of their interpreted religious experiences, he does not see the need to jettison the metaphors provided in current religions. These metaphors have served religious people sufficiently for many generations. Still, some of these metaphors need revision, especially with a scientific understanding of the world in mind. This he does in his Gifford Lectures (2004), published as *Alone in the world? Human Uniqueness in Science and Theology* (2006), focusing on the metaphor of the *imago Dei* (image of God) and what has been learned from the sciences about human evolution. In Van Huyssteen's opinion it is not necessary to create a *new religion*. A revision of the metaphors provided by the respective traditions of believers would be more appropriate.

This said, it would seem that Van Huyssteen and Stone not only have different communities in mind, but different goals towards which they strive. In his pursuit of a plausible methodology for interdisciplinary conversation, Van Huyssteen can appreciate Stone's intent, but as a theologian Van Huyssteen is in pursuit of an appropriate, workable and credible model of rationality for theological reflection which will enable theologians to contribute their insights to the public discussion on how to live and understand human life. With this in mind, Van Huyssteen reveals the practical intent of his sometimes highly abstract reasoning.

It is imperative for theologians to be capable of reflecting on religious experience and to guide believers in understanding their religious experience. Therefore, creating a new and highly philosophical worldview would leave most people practising their faith within a religious community disoriented and bewildered. It would be more productive to re-interpret and re-envision the religious metaphors and models already in use in concrete faith communities. Developing a totally new religion would be impractical, not to mention that most religious believers find the current metaphors and models sufficient. Therefore, Van Huyssteen proposes to work with concrete faith communities in bringing theology to the public arena.

It is, however, not only because of the practical considerations that Van Huyssteen proposes to work with concrete faith communities. If the implications of *critical realism* are taken into account, it must be said that the current metaphors and models used in faith communities do have cognitive implications for the understanding and explanation of reality (Van Huyssteen 1997:178). These cannot be reshaped lightly. Moreover, these metaphors and models provide a rich and diverse history of dealing with the existential dimension of being human. Over millennia these metaphors and models have helped people discover and reflect in depth on their existential questions and wonderments. It would be ill-advised to disregard such informative resources. Still, it is necessary to clarify what such metaphors and models intend to explain. Here, it seems, by uncovering new metaphors, Stone tries to leave behind the preconceived notions of such metaphors and models. Stone also to some extent bypasses the ontological implications of religious metaphors and models, and therefore obtains an extremely high degree of flexibility, which highlights the fallible, tentative and hypothetical nature of religious explanation.

Nonetheless, Van Huyssteen's intent is to work with the concrete situation as it presents itself in religious communities, keeping to the dynamic, living traditions of our time. Wayne Proudfoot puts this well:

A religious life is one in which beliefs and practices cohere in a pattern that expresses a character or way of life that seems more deeply entrenched in the life of that person or community than any of the beliefs or practices (1985:xi).

Even so, it is still not completely clear what Van Huyssteen intends when he states that the focus of theological reflection should be religious experience. However, if one phrases the point differently, it becomes evident.

Like Proudfoot, Van Huyssteen suggests that an experience can only be identified as a *religious experience* by the individual who has/had the experience. This means that the defining aspect of the religious experience is the individual's interpretation that the experience is religious, which implies that the individual's *view of life* or network of interpretation allows for such a conclusion. In other words, within the individual's *view*

of life the best explanation for the experience is that the experience should be understood as a religious experience. Van Huyssteen comments:

...however important human intelligence is, it is in the way people understand the rich dimensions of their own forms of shifting consciousness that religious experience, experiences of cosmology, concepts of supernatural realms, and the aesthetic dimensions of art/image-making all come together. This consciousness, however, is always embedded in specific social and historical contexts (2006:247).

It is important here, though, to realise that the reason for the individual's interpretation that the experience was religious is because the individual's *view of life* includes a religious commitment¹⁴² made prior to the experience. This religious commitment does not necessarily need to be argued for; however, it should be open to discussion to avoid a fideistic approach. It is important here to recognise that everyone makes commitments prior to their experiences which form their *views of life*. If there is no religious commitment, but rather a philosophical or scientific commitment, the experience will not be interpreted as religious. Van Huyssteen explains:

Religious beliefs of course have important functions for the believer. They describe the rite and practices of believing communities, express in the language of faith psychological and sociological needs, and also answer philosophical questions in religious terms. In short, religious beliefs help to explain the world and the place of believers in it. In doing this, religious beliefs reflect a general sense of meaningfulness that extends from the existential level to the level of particular theories and dogmas (1997:231).

Therefore, Van Huyssteen argues that theologians' focus should be the *views of life* that include religious commitments or that generate religious experience. It is not the work

¹⁴² This religious commitment need not be to any specific tradition or metaphysical system and could be a commitment to the possibility that there might be a transcendental divine. This would explain why/how some individuals could express a more religious *view of life* after a particular experience.

of the theologian to identify a religious experience,¹⁴³ but to study, analyse, reflect and construct a clear understanding of *views of life* within which a religious commitment functions.

Furthermore, in Van Huyssteen's understanding of religious experience there seems to be no qualitative difference between an existential experience and a religious experience. Both of these experiences function on the same depth of meaning for the individual, but the expression of these experiences differ because of different commitments made within the individual's *view of life*. However, Van Huyssteen does make a qualification regarding the functioning of *commitments* and *ultimate commitments*. In an essay on the use of Scripture in postfoundationalist theology and the difference between scientific and theological reflection, published in 1997 as a shortened version of the book *The Realism of the Text* (1987), Van Huyssteen states:

...even an existential *commitment* to theories or to a certain paradigm of thought cannot be compared to the *ultimate commitment* evoked in the response to faith (1997:137).

¹⁴³ In *Alone in the World?* Van Huyssteen reflects on the work of d'Aquili and Newberg, who tried to understand what happens in one's mind when it is overcome by ineffable feelings usually ascribed to mystical or religious experiences. In their view it is clear that these kinds of experiences are the effect of altered states of consciousness. According to Van Huyssteen (2006:257) their research revealed that: "...during meditation and worship, the level of activity in those parts of the brain that distinguish between the self and the outside world is radically diminished, or even cut off..." Furthermore, they argue that all religions present possible answers to what ultimately causes things to happen in the universe. The less sophisticated religions point to natural forces and spiritual powers, while the higher more sophisticated religions point to the concept of a god. Van Huyssteen (2006:260), however, remarks that their model is naively modernist, but does find it interesting that they: "...maintain that religious experiences are not illusory, and that God or the divine reality actually exists in such a way that religious experience can be explained in terms of a correlation with specific neural activities." The work of David Lewis-Williams and Jean Clottes is also relevant here. Van Huyssteen (2006:206) notes: "Shamanism, in the sense of intense religious experiences accompanied by states of ecstasy, is found all over the ancient world. Clottes and Lewis-Williams argue that ecstatic revelations and visions actually form an integral and important part of the Judeo-Christian tradition that stretches back to Old Testament times. Moreover, they maintain that this tradition goes even further back, to the very first emergence of fully modern human beings. At all times and in all places people have entered ecstatic, frenzied, altered states of consciousness and experienced hallucinations. They also argue that the potential shift, voluntary or involuntary, between different states of consciousness in humans is a function of the universal human nervous system. In fact, all people have to cope with different states of consciousness in one way or another." This said, Van Huyssteen (2006:263) points out that Gregersen agrees with him that evolutionary psychologists cannot appropriately evaluate and explain the internal rationality of religious beliefs.

What is not clear about Van Huyssteen's view here is whether *faith*, as an action, is reserved for ultimate religious commitments only. If so, faith would be a rather ambivalent notion. Faith, as an action, might be evoked by experiences that are not traditionally seen as religious. If, however, faith as an action is reserved for an ultimate commitment and this ultimate commitment is evoked by experiences which might be traditionally religious or outside the scope of what is thought to be traditionally religious, then this statement would accord with Van Huyssteen's commitment to *experiential adequacy*. Moreover, he follows this statement by commenting:

...whatever the difference between a religious commitment and an intellectual commitment to theories might be, *in practice* both function as already conceptualized background theories on the level of theoretical reflection (1997:138).

As such, there is no qualitative difference between a religious experience and an existential experience; however, theology's focus should be on *views of life* that generate religious experience.

Returning to Van Huyssteen's discussion with Jerome Stone, it becomes clear why Van Huyssteen disagrees with Stone's approach. If theological reflection is focused on *views of life* that generate religious experience, then Stone's approach is not theological but philosophical in nature. Moreover, Van Huyssteen's intent is to render religious *views of life* intelligible within a scientific culture. Stone, on the other hand, intends to construct a new way of understanding the divine within a scientific culture. Thus, while Van Huyssteen attempts to bring religious *views of life* into an appropriate participation in an interdisciplinary conversation, Stone attempts to construct a *view of life* that could keep elements of religious commitment within a scientific *view of life*. In other words, Stone and Van Huyssteen have completely different goals. However, Van Huyssteen does respect Stone's approach, but suggests that Stone is busy with philosophy and not with theology.

Picking up the conversation here, Van Huyssteen argues in his Gifford Lectures (*Alone in the World?*) that a religious view of life is natural. He does not argue that a religious

view of life is better than another, but that a religious view of life is appropriate if one takes the biological and cultural evolution of human beings into account. Still, while a religious view of life as such is appropriate, this does not mean that any existing religious view of life is appropriate. Therefore, Van Huyssteen starts by facilitating an interdisciplinary conversation concerning the theological concept of the *imago Dei* and the evolutionary development of *Homo sapiens*. Through this, it becomes clear that Van Huyssteen argues for the appropriateness of a religious view of life in contemporary culture,¹⁴⁴ whilst appropriating religious views of life for contemporary culture.¹⁴⁵

However, appropriating religious views of life for contemporary culture does present a complex challenge concerning the evaluation of religious views of life and the commitments that form them. Van Huyssteen explains:

¹⁴⁴ Van Huyssteen (2006:214) explains: "What became clear, as we saw in the work of Ian Tattersall, is that *the potential arose in the mind* to undertake science, create art, and discover the *need and ability* for religious belief, even though there were no specific selection pressures for abstract abilities at any point during our past." Furthermore, Van Huyssteen (2006:265) refers to the work of Steven Mithen, who argues that: "...there exist no specialized religious module in the human brain, and no distinct borderline between religious and nonreligious imagination. The emergence of religion is in fact an intrinsic part of the liberation of human rationality from the constrained and enclosed structure of *Roman chapels* to the open and fluid structures of the Gothic cathedral-like cognitive fluidity." Niels Gregersen also argues that imagination, including religious imagination, is not an isolated faculty of human rationality. He suggests that imagination, including religious imagination, can be found at the heart of human rationality. Van Huyssteen (2006:261) explains: "...religious imagination should not be seen as something esoteric that can be added to, or subtracted from, other mental states. Rather, the process of human imagination opens itself up to more generalized images, some of which might be seen as *religious* according to our current cultural usage. In fact, scholars like Steven Mithen, Ian Tattersall, Jean Clottes, David Lewis-Williams, Rick Potts and Terrence Deacon have all argued that religious imagination emerged naturally and spontaneously in the course of the evolution of human cognitive systems." Van Huyssteen agrees with Gregersen, who argues that religious faith is not confined to non-observable, supernatural entities. Instead, religious faith comprehensively re-describes the observable world through the lens of set faith (Van Huyssteen 2006:263). In his Gifford Lectures, entitled *Genes, Genesis, and God* (1999), Holmes Rolston argues, according to Van Huyssteen (2006:266) that: "...the emergence of religion may actually represent the achievement of an entirely new level of insight. The fact that our conceptual and perceptual faculties have evolved does not mean that nothing true appears in them, nor that nothing new can ever arise in them." As such, in Rolston's view, it is not biology that generates religion, but rather life itself that evokes a religious response. Therefore, what surprises him is the unique trait of human intelligence to be both religious and philosophical, a trait one cannot find anywhere else in animal life (Van Huyssteen 2006:267).

¹⁴⁵ In *Alone in the World?* Van Huyssteen (2006:16-17) writes: "At the heart of interdisciplinary reflection lies precisely this kind of challenge: standing within traditions, we often realize that a particular tradition may generate questions that cannot be resolved by its own resources alone. Exactly this kind of interdisciplinary awareness may lead us to reach out for rational support to other disciplines. For postfoundationalist theology this should include an interpretation of religious experience that facilitates an evaluation of the problem-solving effectiveness of religious and theological traditions and transcends pitfalls like the kind of dualist approach that sets up a false dilemma between the *natural* and the *supernatural* and then demands a reductionist choice between the two."

... precisely our experience – in the broadest sense of the word – in some important sense must be the source of what we normally regard as good reasons, or convincing evidence for shaping and determining our choices and responsible judgments (1999:221).

Furthermore:

...a postfoundationalist notion of rationality is revealed when we find a careful balance between...the way our beliefs are anchored in interpreted experience...and the broader networks of belief in which our rationally compelling experiences are already embedded (1999:221).

Van Huyssteen turns to Susan Haack¹⁴⁶ in reflecting about this necessary equilibrium. Haack, according to Van Huyssteen, argues that all knowledge is anchored in experience. However, this knowledge is then justified by means of claims to coherence (1999:222). Van Huyssteen takes this statement to be postfoundationalist, because Haack:

...splits the difference between the best intentions of foundationalist and nonfoundationalist worldviews (1999:222).

Furthermore, Van Huyssteen observes that Haack also attempts to construct an epistemic model that moves beyond the foundational/nonfoundational opposition. Her model presupposes the universal intent of human rationality and she justifies this by linking the model to the truth-indicativeness of human rationality by appealing to evolutionary considerations (1999:222). Van Huyssteen explains Haack's position:

...if human rationality has been a very specific survival strategy for our species, then it is our greater cognitive capacity to interact with the world, and hence to

¹⁴⁶ Susan Haack is an English professor of philosophy and law at the University of Miami in the United States. She has written on logic, the philosophy of language, epistemology, and metaphysics.

predict and manipulate it, that offers us some modest reassurance that we have an innate ability to classify certain things, and at least the minimal explanatory competence to deal with them¹⁴⁷ (1999:222).

Van Huyssteen claims that Haack develops a model of rationality that seems to bring the best of foundationalist and nonfoundationalist worldviews together. This model recognises the central role of experience for all forms of empirical justification, whilst recommending that not all beliefs need to be justified by experience exclusively (1999:223). Most importantly, though, her model acknowledges that the evidential support for beliefs need not flow uni-directionally from experience to belief, but it rather endorses the stance that there is a two-directional flow between experience and belief (1999:223). Van Huyssteen explains:

Haack wants her foundherentism to allow for exactly the kind of mutual support our beliefs receive from the wider networks of belief in which they are always already nonfoundationally embedded (1999:223).

Furthermore, Haack's model also requires experiential support for the justification of beliefs to some extent (Van Huyssteen 1999:223). Van Huyssteen explains that her model combines two important claims:

1. A subject's experience is relevant to the justification of his or her empirical beliefs, but there need be no privileged class of empirical beliefs justified exclusively by the support of experience, independently of the support of other beliefs;
2. Justification of our beliefs is never exclusively one-directional, but involves relations of mutual support between them (1999:223).

This model is reminiscent of a postfoundationalist model of rationality, because it endorses the notion that:

¹⁴⁷ Van Huyssteen (1999:222) comments that, once again, it is evolutionary epistemology that is helpful here.

...we relate to our worlds, and to one another, only through complex networks of belief that reflect our interpreted experience (Van Huyssteen 1999:223).

Therefore, one can never account for an experience in an impersonal way, because such an account will always be personal. Van Huyssteen comments that Haack's model also includes a fallibilism similar to the fallibilism found in a postfoundationalist notion of rationality:

...precisely because the good reasons we have for our beliefs are always partially justified by experience and partially justified by other beliefs, the justification for holding our beliefs will never be complete, but will rather be gradational (in degrees)¹⁴⁸ (1999:223-224).

Interestingly, Haack's model of rationality supports Van Huyssteen's suggestion that nonfoundationalists may become covert crypto-foundationalists. Van Huyssteen refers to Haack:

...if our contextual *standards* for rationality are confused with the *nature* of rationality as such, then a nonfoundationalist position can easily posit *basic* or *hardcore* beliefs by which all our justified beliefs must be supported. But these will be constructed, in the typical protective strategy...as beliefs which, in the epistemic community in question, do not stand in need of any justification whatsoever¹⁴⁹ (1999:224).

Haack explains her notion of epistemic justification by using the image of a *crossword puzzle* (Van Huyssteen 1999:225). The clues of the crossword puzzle are like experiential evidence. Already completed and intersecting entries are as good as background beliefs which influence and restrict uncompleted entries. Haack explains:

¹⁴⁸ This is here where Van Huyssteen draws on responsible judgment as a tool for evaluating the degrees of justification achieved.

¹⁴⁹ Van Huyssteen (1999:224) explains Haack's argument: "...nonfoundationalist views of knowledge make justification depend solely on the relations among beliefs that are coherent or consistent with one another...the *drunken sailors argument*: the claim that our beliefs can be justified by nothing but mutual support from other beliefs, is as absurd as suggesting that two drunken sailors could support each other by leaning back to back – when neither was standing on anything."

How reasonable one's confidence is that a certain entry in a cross-word puzzle is correct depends on: how much support is given to this entry by the clue and any intersecting entries that have already been filled in; how reasonable, independently of the entry in question, one's confidence is that those other already filled-in entries are correct; and how many of the intersecting entries have been filled in (1993:82)

In other words, one's justified beliefs must be in relation to experience, but one's beliefs also need to cohere with all other beliefs. Furthermore:

...just as the probability of the correctness of one's answers increases as the answers gradually fit together in the grid, so the degree of certainty or conviction with regard to one's own knowledge claims increases as bits of empirical evidence fit together (1999:225).

As such, the degree of justification for believing what one believes is the product of:

1. The quality of the available and recognised experiential evidence; and
2. The way one enquires about and account for one's beliefs (1999:225).

This is exactly what Van Huyssteen (1999:225) refers to as experiential and theoretical adequacy.¹⁵⁰

Still, while Haack's model offer an epistemic fallibilism and a rich notion of experience which includes sensory, introspective and memory experience, and argues that all these experiences are necessary for justifying empirical beliefs, it does seem to Van Huyssteen that Haack has a preference for a highly theoretical, natural scientific rationality (1999:226). Van Huyssteen comments that even though Haack's model is reminiscent of a postfoundationalist approach, she still finds empirical evidence, narrowly and

¹⁵⁰ Haack (1993:207) comments: "Suppose you and I are doing the same crossword puzzle, and that we have decided on different solutions to some entry. Henceforth we will disagree about what evidence is relevant to other, intersecting entries...The more entries we have filled in differently, and the longer and more central they are, the more deep-seated out differences will be, and the harder to resolve. Nevertheless, we are both trying to fit the entries to the clues, and to other entries."

scientifically constructed, rationally more compelling. Van Huyssteen suggests that this is probably why she does not deal with the problem of religious experience in any direct sense (1999:226).

Van Huyssteen notes that Haack identifies a foundationalist view in its appeal to experience in the justification of theories, and a nonfoundationalist view in its insistence on mutual support for beliefs within wider networks of belief; however, Clifford Blake Anderson¹⁵¹ characterises Haack as a traditional modernist epistemologist. Van Huyssteen agrees with this for two reasons:

1. Haack narrows down rationality to natural scientific rationality by reducing experiential accountability to empirical accountability; and as a result of this
2. She finally chooses to exclude the problem of religious experience from her experiential epistemology (1999:227).

Van Huyssteen explains that Haack does this by acknowledging that:

...the individual person is embedded in a mesh of interconnected beliefs, perceptual experiences, desires, and fears. She then goes on, however, and distinguishes between *evidential* and *nonevidential* components within our web of beliefs (1999:227).

According to Van Huyssteen, Haack describes these evidential components as belief states, perceptual states, introspective awareness and memories (1999:227). Nonevidential components are comprised of our desires, preferences, fears etc. – in short, all existential feelings and attitudes. These nonevidential components do not form part of rational evidence and this leads Van Huyssteen to ask:

...if we...relate to our worlds and one another only through interpreted experience, then it becomes unintelligible how the interpretation of empirical

¹⁵¹ Clifford Anderson completed his doctoral dissertation entitled *The Crisis of Theological Science: A Contextual Study of the Development of Karl Barth's Concept of Theology as Science from 1901 to 1923* in January 2005 at Princeton Theological Seminary under Van Huyssteen's supervision.

experience, and especially introspective and memory experience, could in principle be distinguished from the interpretation of fear- or desire-experiences – unless these kinds of personal experience are somehow still regarded as foundationalist points of *pure* experience, something Haack strongly would deny (1999: 227-228).

To Van Huyssteen Haack's narrowing of experience to what is relevant in natural scientific rationality, and then making a distinction between experiences that have or do not have evidential values, seems inconsistent with the rest of her model¹⁵² (1999:228). Once again, it seems that the value of religious experience is determined by a prior commitment to/against it.¹⁵³ Van Huyssteen comments:

Religion (and by implication also theological reflection) can only be excluded...if a decision to favour a strictly empiricist, narrow notion of scientific rationality has already been made in advance (1999:229).

Once again, it becomes clear that the commitments one makes in forming a network of interpretation (or worldview), consciously and unconsciously, plays a significant part in the way one solves, evaluates and justifies empirical/experiential and conceptual problems. Nevertheless, one need not be a slave to one's own commitments or those of others. What Van Huyssteen proposes is that one acknowledges these commitments and makes allowance for a discussion on the validity of these commitments within a specific context. Therefore, in "Experience and Explanation: The Justification of Cognitive Claims in Theology" (1988), Van Huyssteen suggests that the distinctions between commitments, ultimate commitments, beliefs and religious faith be maintained, because these differ in level of meaning to the holder (cf. Van Huyssteen 1997:178). However,

¹⁵² Puzzlingly, Haack does accept testimonial evidence. Here William Crawley makes a very interesting observation: "It is certainly true that at least some of our religious beliefs are testimonial in character and traditions are long-established testimonial chains, and if Haack accepts the implications for nonreligious testimonial evidence, there could be no reason left for not accepting it for the category of religious testimonial evidence too" (Van Huyssteen 1999:230).

¹⁵³ Haack (1993:214) writes: "The question reveals an interesting unclarity in what is meant by *empirical* in *empirical beliefs*; if one takes it as *to do with the natural world*, the question of religious experience can perhaps be put aside as not relevant, whereas if one takes it as *not purely logical, to do with how things contingently are*, the question cannot be avoided. Since the present task is already formidable, I shall take the easier path, and construe *empirical* narrowly enough to keep the issue of religious experience at bay."

Van Huyssteen argues that these commitments can only be justified within the context of the holder. He explains:

...no strong justification is possible for a commitment to an ultimate commitment (i.e., the search for maximal meaning in life) outside the way of life of which it forms part. This is no retreat to irrationalism, because experiential and epistemological adequacy, and not justified certainty, makes a commitment and its resulting beliefs and propositions responsible. This also implies that the beliefs that are implied in a commitment...should in principle always be open to criticism (1997:178).

This means that in a *critical realist* model (or postfoundational notion of rationality) the beliefs that are implied in an ultimate commitment should never be justified by foundationalist doctrine, but it might be possible to offer good and adequate reasons for holding onto said commitment and its implied propositional beliefs (1997:179). Van Huyssteen elaborates on this point:

Beliefs are therefore never just the *frills on a* commitment, but can in a process of explanatory progress offer good reasons why it would make more sense (i.e., be more rational) to be committed to a certain way of life than not to be committed to it. In this sense there is no contrast between scientific and religious beliefs, nor between a commitment to realism in science and a commitment to critical realism in theology (1997:179).

However, Van Huyssteen remarks, it is important for the sake of epistemological adequacy, that the commitment should be based on beliefs that are themselves external to the conceptual framework (1997:179). Nevertheless, even though one makes this distinction between commitments and beliefs, it is necessary to ask what religious beliefs explain. This can be answered by phrasing the question differently and Van Huyssteen does exactly that by placing the question within a qualified critical realist model.

When asked what religious beliefs explain, Van Huyssteen explains that the *postfoundationalist* (who is also a critical realist) does not offer a strong defence for theism, but rather deals with the cognitive claims of religious language and theological reflection (1997:167). In this process Van Huyssteen intends to respond to instrumentalists' claims that religious language provides a useful system of symbols that can guide actions and be meaningful for the believer without being ontologically referential or reality depicting. He explains that these kinds of claims imply that religious beliefs are ways one can deal with the world, but they are only generated through the imagination and therefore are illusory. Therefore Van Huyssteen needs to explain how religious beliefs, which are subject to interpreted experience and verbalised in metaphorical language, can be both referential and reality depicting without definite knowledge of that which is referred to (1997:170).

Van Huyssteen observes that both Saul Kripke¹⁵⁴ and Hilary Putnam¹⁵⁵ show that this is possible. According to Van Huyssteen (1997:171), they argue that reference is possible independent of definite knowledge of that which is referred to. They draw attention to the fact that any speaker is part of a linguistic community. They argue that the speaker does not necessarily refer to prior or *given* knowledge, but rather to information passed on through the linguistic community going back to the person or event in question. Hence, Van Huyssteen points out, it is not important to know exactly how the speaker got the information, but the chain of communication becomes paramount (1997:171).

Van Huyssteen explains that it is the context and the content – that which has been passed on in tradition and is now being referred to – that determines the meaning and knowledge claim of the referent. He clarifies this as follows:

It now not only becomes possible...to fix reference prior to and apart from any definitive knowledge, but in terms of a critical realist interpretation of theory, it is the metaphorical concepts that provide an epistemic access to the referent (1997:172).

¹⁵⁴ Saul Aaron Kripke is an American philosopher and logician.

¹⁵⁵ Hilary Whitehall Putnam is an American philosopher, mathematician and computer scientist, specialising in philosophy of mind, philosophy of language, philosophy of mathematics, and philosophy of science..

As such, theological theories can claim to be referential and reality depicting even though they are not necessarily direct and exhaustively descriptive in a naive realist way (Van Huyssteen 1997:172). This goes for scientific theories as well. Therefore, tradition forms an important part in the expression of religious beliefs. Van Huyssteen adds:

...(religious) experience can be reliably interpreted only in terms of the hermeneutical tradition of a linguistic community that has passed on the root metaphors...through a long history and interpretive tradition (1997:172).

In other words, reference in theological reflection is not based on prior knowledge of that which is referred to, but on the history of religious experience as contextual and relational, interpreted and mediated, experience (Van Huyssteen 1997:173). Van Huyssteen reminds us that it is people/rational agents which refer, not words. He explains:

Reference directly relates to the fact that the speaker is a member of a community of speakers who, through a tradition of historical links, speak in a certain way, a way that implies certain *baptismal events* as well as a corresponding commitment to an ultimate commitment, that is, to finding maximal meaning in life (1997:173).

Therefore, it is experiential adequacy that justifies beliefs, because theological theories are responsible attempts at understanding or seeking the best explanation or estimation of the truth (1997:174-178). Furthermore, an explanation is good if it achieves high levels of equilibrium in solving experiential and conceptual problems arising from interpreted religious experience. The validity of theological reference lies in experiential adequacy, which entails the interpretative tradition of a community, and not in empirical adequacy.

Bringing it all together, Van Huyssteen argues that the focus of the postfoundationalist theologian's reflections is on religious experience. To put it more accurately, the focus is on *views of life* that include a religious commitment and generates religious experience. This indicates that the postfoundationalist's theology includes much more than only the

religious (or spiritual) dimension of a person's life. The theologian primarily seeks to make sense of the religious (or spiritual) dimension of a person's life, but because said dimension is mediated through interpreted experience and therefore influenced by all other dimensions, the theologian needs to acknowledge and take into account all aspects of human experience. It is not the theologian's task to reflect on these other dimension, but rather to engage these dimensions through the help of interdisciplinary conversation with specialists in each field. The theologian's task is to reflect on the appropriateness of the religious (or spiritual) dimension of human life and therefore needs to take part in discussion on the whole of human life. If this is to be achieved, the theologian will need to be able and willing to be part of this conversation. Furthermore, the theologian needs to be valued in this conversation. This, however, implies that theologians would need to progressively widen their awareness and devote their attention to include much more than the church and its life. What is needed are open-minded public theologians who are valued, respected and influential.

4.2 A Postfoundationalist Public Theology

In the article "What makes us Human? The Interdisciplinary Challenge to Theological Anthropology and Christology" (2010), published in the *Toronto Journal of Theology*, Van Huyssteen explains why theology should be understood and practised as a public theology.¹⁵⁶

Van Huyssteen refers to the statement by Brown who explains that a theology which can claim the right to a democratic presence in the interdisciplinary, political and cross-contextual conversation that constitutes our public discourse in the secular academy should be understood as a public theology (2010a:143).

¹⁵⁶ Van Huyssteen also delivered a lecture entitled "Interdisciplinary Theology as Public Theology", published in 2011, at the University of Bloemfontein which reflects the same explanation why theology should be understood and practised as public theology. However, in *The Shaping of Rationality* (1999) Van Huyssteen illuminated the public nature of theological reflection and in "Pluralism and Interdisciplinarity: In Search of Theology's Public Voice" (2001), Van Huyssteen already started addressing the issue of public theology more directly.

What is important to Van Huyssteen is that theological inquiry should not be confined to the ecclesiastical domain. He adds:

For an interdisciplinary, public theology the realization is precisely that our events of articulation lie transversally across both discursive and non-discursive actions in time and space (2010a:144).

Strengthening his argument for a public theology, Van Huyssteen recalls the work he has done on human rationality and the quest for intelligibility through responsible judgment and progressive problem-solving. He explains that human rationality has shared resources that:

...apply to both theology and the sciences as we use the same kinds of interpretative and evaluative procedures to understand nature, humans, and the social-historical and religious aspects of our lives. And in this fact is found the deepest epistemological and hermeneutical reasons why theology by its very nature should be seen as public theology (2010a:144).

However, to enter such an interdisciplinary arena in a postfoundationalist way, theology would have to make three important moves.

1. Theologians should acknowledge the radical contextuality of all intellectual work, the epistemically crucial role of interpreted experience, and the way that disciplinary traditions shape the values that inform their reflections about God and what they believe to be God's presence in the world.
2. A postfoundationalist notion of rationality should open their eyes to an epistemic obligation that points beyond the boundaries of their own discipline, their local communities, groups, or cultures, toward plausible forms of *interdisciplinary dialogue*. This is possible because of the shared resources of human rationality.

3. It is precisely these shared resources of human rationality that enable interdisciplinary dialogue, and are expressed most clearly by the notion of *transversal rationality*. In the dialogue between theology and other disciplines, transversal reasoning promotes different, non-hierarchical but equally legitimate ways of viewing specific topics, problems, traditions, or disciplines, and creates the kind of space where different voices need not always be in contradiction, or in danger of assimilating one another, but are in fact dynamically interactive with one another (Van Huyssteen 2010a:145).

The notion of transversality, Van Huyssteen explains, provides a philosophical window that teaches theologians and scientists to construct bridge theories between reasoning strategies, whilst respecting the disciplinary integrity of reasoning strategies (2010a:145). Furthermore, transversality enables theologians and scientists to identify possible shared conceptual problems in different and diverse reasoning strategies. This approach should also create a theological practice of being accountable to canons of inquiry defensible within, and across, the various domains of common discourse.

Already in *Teologie as Kritiese Geloofsverantwoording* (1986) [Theology and the Justification of Faith (1989)] Van Huyssteen had argued for broadening the horizons of theological inquiry and suggested that the theologian has a responsibility to the wider community. This, however, was preceded by his article “Systematic Theology and Philosophy of Science: The Need for Methodological and Theoretical Clarity in Theology” (1981).¹⁵⁷ He republished this article in *Essays in Postfoundationalist Theology* (1997).

¹⁵⁷ Van Huyssteen made this suggestion at a time when the Dutch Reformed Church in South Africa had enormous power. Not only was it difficult to distinguish between DRC and state policy, but the DRC was in control of important theological faculties serving Afrikaans-speaking communities. It was rather controversial for Van Huyssteen to suggest that the theologian is responsible to the wider community and not just to the Christian churches. Although Van Huyssteen does not address public issues directly it is clear that his work has implications for what is now called public theology.

In this article Van Huyssteen states that there are two problematic issues in the models used in philosophical theology:¹⁵⁸

1. The ambivalence of the distinction between theology and faith in many cases; and
2. Radical differences of opinion as to the nature and purpose of philosophical theology as such (1997:105).

Van Huyssteen acknowledges that the church and theology have a common concern in pursuing intelligibility of the biblical message in contemporary life; however, the fact that theology is generally regarded as an ecclesiastical activity:

...means that the theologian often has to contend with appalling insensitivity towards genuine problems posed by the philosophy of science, and is only too readily branded as either leftist or rightist, liberal or conservative, excessively scientific or not scientific enough (1997:106).

According to Van Huyssteen (1997:106), this situation becomes even more difficult when a theology understands itself as a science that attempts to be self-critical and not just an unquestioningly conformist to biblical texts and self-appointed authoritative creeds.

¹⁵⁸ In this article Van Huyssteen still uses the term *systematic theology*, but in later years he replaces the term with *philosophical theology*. Murphy (1994:239) makes a suggestion regarding the foci of philosophical theology: "I suggest the following four categories of intellectual pursuits, despite the fact that they are neither mutually exclusive (some cases may fit into more than one category) nor exhaustive (some works in philosophical theology may not fit neatly into any of the categories): (1) theological foundations; (2) explication of Christian doctrine by means of philosophical concepts; (3) investigation of philosophical problems that arise from theological claims; and (4) inquiry at the interface between theology and other disciplines." She goes on to explain: "...philosophical theology shares concerns with various branches of philosophy - most notably with philosophy of religion, but also with epistemology, ethics, philosophy of language and philosophy of action. Theology shares concerns with a number of other disciplines as well: anthropology and other human sciences, history, and even with the natural sciences." Furthermore, referring to Wolfhart Pannenberg, Murphy comments: "...he engages in the debate about the nature of historical research (a question for the philosophy of history), and he does so from a theological standpoint. Hence, it is reasonable to describe his work on this topic as philosophical theology. The most striking development within this category of philosophical theology is an increased interest in the relations between theology and the natural sciences (Murphy 1994:241-242)." Also see footnote 4.

As such, Van Huyssteen explains that the philosophical theologian has to address two fundamental questions:

1. Where does one find one's problems/questions?
2. Where does one find criteria for distinguishing good solutions or answers from bad ones? (1997:107).

A postfoundationalist approach to rationality already answers the second question. The rational agent is required to employ responsible judgment in the search for optimal intelligibility. Good solutions are those that tentatively and optimally solve experiential and conceptual problems in such a way as to allow for further research. The answer to the first question, however, is implicit in the focus of a postfoundationalist theology. The problems in need of theological reflection arise out of *views of life* that generate religious experience. Thus, theologians find their problems within the interpretative network on *religious views of life*. Still, the theologian is not only responsible to the individual, but also to the wider community. Van Huyssteen explains that philosophical theology:

...is not simply concerned with an introspective exploration of *academic* issues, but most consciously formulates the problems/questions that already exist in and preoccupy the human mind (1997:107).

Furthermore, the theologian also finds/discovers problems in *religion* and *religious experience* – a level preceding theological reflection. Van Huyssteen puts this well:

Theology is...a purely human activity restricted to people who formulate and systematize the problems surrounding every experience of God - those issues that accompany, and often jeopardize, our statements concerning God (1997:107).

Van Huyssteen clarifies this by stating that one of the purposes of the theologian is to assist Christian communities in solving their religious problems¹⁵⁹ (1997:107). But theologians always have an obligation to society as a whole too, because they have a commitment to rationality:

Inquiry into the construction of theological methods and theories, into the nature, quality, origin and justification of theological methods and theories, and into the nature, quality, origin, and justification of theological propositions can be fruitful only if the theologian is *au fait* (well-informed/familiar) with both current theological problems and the complexities of present-day philosophy of science (1997:108).

In addition to theology's responsibility to the society as a whole, philosophical theology as such has to be distinguished from confessional denominationalism (1997:123). Van Huyssteen is clear that postfoundationalist theology is ecumenical by its nature and therefore has to untangle itself from the confessional differences between Christian churches. He explains that postfoundationalist theology

...should operate hermeneutically from the words and events of the Bible (as source documents of Christianity) and proceed from there to analyze Christian tradition and the problems this raises for our thinking today (1997:123).

This raises a very important question concerning the use of Scripture in the postfoundationalist's theology.

Van Huyssteen states:

What is real for theology and for science is not the observable but the intelligible (1997:163).

¹⁵⁹ Van Huyssteen (1997:107-108) comments: "...today Christianity is often manifested outside the established denominations, so that theologians may find legitimate theological problems outside the church as well."

Furthermore, Van Huyssteen claims that the sciences and theology have:

...something important to say about...two very different but also very important domains of reality (1997:168).

Unfortunately, some theologians blur the line between science and theology when dealing with Scripture. Van Huyssteen reminds us that it is necessary to acknowledge that theological explanations or hypotheses should solve experiential, as well as conceptual problems that arise from interpreted religious experience (1997:177). The explanatory models in theology, informed by the metaphors provided by Scripture, are hypothetical in nature and should therefore not to be taken literally; still, these explanations should be taken seriously (1997:178).

Already in *Geloof en Skrifgesag* (1982) [Faith and the Authority of Scripture] Van Huyssteen claims unequivocally that there are no timeless, finalized, biblical truth-claims which would serve all Christians in all ages (1982:11). One comes to the text with specific intentions and particular *views of life* (or worldviews) in play. In response to the *biblical literalism* of the day, Van Huyssteen comments on the selective use of texts, as well as ignorance about hermeneutics (1982:36). Van Huyssteen explains that the reluctance of biblical literalists to apply hermeneutical devices is unfounded, seeing that the writers of the New Testament themselves had already re-interpreted laws and regulations found in the Old Testament (1982:37). Furthermore, the writers of these texts adopted many ethical values from their surrounding milieu. Yahweh's relationship with the people was always situational, implying that one should read and understand these texts as reflecting on specific situations. Van Huyssteen makes it clear that if the Bible were to function as a guide for one's life, this should be done in a responsible and appropriate way – hermeneutically (1982:38).

In *The Realism of the Text – A Perspective on Biblical Authority* (1987)¹⁶⁰ Van Huyssteen approaches the use of Scripture in theology from an epistemological perspective. Drawing on the insights of philosophers of science on epistemology, Van Huyssteen rephrases the problem of *Scriptural authority* as: the problem of the

¹⁶⁰ A shorted version of this book was also published in *Essays in Postfoundationalist Theology* (1997).

epistemic status of Scripture in theological reflection (1987:1). Rephrasing the problem as an epistemological question, Van Huyssteen deals with:

1. The status of the biblical text in theology;
2. The hermeneutical problem of understanding this text; and
3. The problem of reinterpreting the concept *authority*, as well as crucial metaphors like *Word of God* and *inspiration* (1987:1).

Van Huyssteen makes it abundantly clear that:

...the quest for the epistemological status of the Bible in Christian thought is directly linked to the credibility of the Christian faith as such (1987:3).

This is a crucial issue for Van Huyssteen, because here already his intention to construct a credible theology which can participate in public discourse begins to take form. He states that both science and theology are responses to humankind's search for ultimate meaning and significance in a transcendent reality – beyond this world (1987:5). Van Huyssteen explains that Christian theology is a very specific and significant reflection in this pursuit. Van Huyssteen (1987:6) cites Burnham:

Now we are beginning to recognize that the common issue for both science and religion at this moment in time is not the origin of the universe, the validity of evolution or the existence of God, but the basic principles of epistemology: how do we human beings come to terms with 'reality', that which is?

If theology intends to reflect on religious experience and explain how it might be incorporated into the experience of reality, *critical realism* becomes important once again. This is especially the case if theology intends to make knowledge claims about a reality shared by all – and reflected on by all disciplines. Van Huyssteen supports this statement by arguing that the natural sciences' success in making reliable predictions about reality and devising better ways of controlling nature implies there is something to be said for the realist assumptions of science (1987:7).

Reflecting on *scientific realism*, Van Huyssteen engages with the work of Ernan McMullin, who argued that realists claim there are good reasons to believe in the reality of the terms of successful theories (Van Huyssteen 1987:11). Van Huyssteen explains that the metaphors and models constructed in science:

...are helping to illuminate something that is not well understood in advance, perhaps some aspect of human life that we find puzzling. The manner in which such metaphors work is by tentative suggestion (1987:12).

It is important here to realise that scientific theory is not necessarily literally true. Scientists therefore pursue *fruitful* metaphors that allow for progressive models in reflecting on reality. Van Huyssteen comments:

I do think, however, that anyone considering the possibilities of scientific realism for theology should be extremely wary of an uncritical, superficial transferring of the realism of science to the domains of religious belief, and to theology as the reflection on the claims of this belief (1997:130).

Reflecting on reality and asking whether theology and science both reflect on it, Van Huyssteen refers to McMullin, who suggested talking of different *domains* of reality, rather than different *levels* of reality (1997:131)¹⁶¹. Van Huyssteen cites McMullin:

Science has no access to God in its explanations; theology has nothing to say about the specifics of the natural world (1997:132).

Hence, Van Huyssteen suggests that the problem is not whether theology reflects on reality, but whether its knowledge claims are reliable and that critical realism becomes important here.¹⁶²

¹⁶¹ Arthur Peacocke warns against discriminating when attributing *reality* to science and theology. Van Huyssteen (1997:131) explains: "There is no sense in which subatomic particles are to be regarded as *more real* than a bacterial cell or a human person or, even, social facts of God." Peacocke, however, suggests talking of different *levels* of reality.

¹⁶² Van Huyssteen (1997:132) states that McMullin also agrees that both theologians and scientists are realists: "...making reliable truth-claims about domains of reality that lie beyond our experience."

According to Van Huyssteen, *critical realism* in theology is not a theory about truth, but a theory about the epistemic values that shape rationality and how one should interpret the knowledge claims made by either theologians or scientists (1997:41). He adds that:

...critical realism may become a valuable epistemological tool for evaluating the explanatory role of religious commitment and also for highlighting the fact that the rationality of religious/theological reflection is shaped not only by pragmatic or empirical criteria, but also by the cognitive and evaluative dimensions of human knowledge (1997:42).

Van Huyssteen explains that critical realism defends theological rationality against the criticism that religious and theological language is useful only on an emotional level (1997:42). This is important, especially because there are theologians trying to avoid theoretical inconsistency by hiding behind theological language (1997:43). Critical realists argue that religious and theological language does refer to reality, even if only in a minimalist sense. This said, Van Huyssteen points out that it is important to understand that a qualified or weak form of critical realism does not offer a strong defence for theism (1997:43). Critical realists attempt is to shape the cognitive claims of religious language and theological reflection in a more plausible way (1997:43).

Van Huyssteen adds that a critical realist stance is *realist* because it recognizes the cognitive and referential nature of analogical language as a form of indirect speech (1997:43). However, it is also *critical* because it holds that theological language should be understood as hypotheses and therefore tentative, open, temporary and fallible. As Van Huyssteen sees it, the strength of a modest form of critical realism lies in its insistence that direct and literal descriptions of objects are impossible, in theology and the sciences (1997:44). Hence, the objects of theological and scientific reflection are beyond the range of literal description (1997:44). In other words, critical realists hold that one can rely on cognitive claims about dimensions of reality that one can only access through the interpretation of one's experience (1997:45). Van Huyssteen explains that:

...theological reflection...begins with ordinary human experience and reflection and then moves from there to religious affirmations about the nature of reality (1997:45).

That is to say, one forms theories about the religious dimension of reality by using models that have their roots in the metaphors generated in religious experience. That is to say, theology is not reflection on God, the Bible or religion. Theology is reflection on religious *views of life*¹⁶³ (1997:45). Critical realism implies a fallible, experiential epistemic system that is consistent with a holistic epistemic approach. Such a holistic approach is concerned with the integration of experience and an analysis of what believers explain as being religious in their experiences.

In Van Huyssteen's view, Scripture provides most of the metaphors used to construct models explaining religious experience, especially in the Judeo-Christian tradition (1987:18).¹⁶⁴ Thus, theologians need to question in what way Scripture informs the models by which they intend to shed light on religious experience.¹⁶⁵ Van Huyssteen discusses three models regarding the use of Scripture in theory construction, namely naive realism, instrumentalism and critical realism.

Van Huyssteen explains that in *naive realism* models are taken literally. There is no need for an appropriate hermeneutics, because the belief is in the model itself. This sort of biblical fundamentalism is self-destructive, because:

¹⁶³ Van Huyssteen (1987:17) observes that Arthur Peacocke describes theology in a similar fashion when he suggests that theology is: "...the reflection and intellectual analysis of the religious experience of humankind...", and Peacocke adds "...in particular of the Christian experience."

¹⁶⁴ Van Huyssteen (1997:135) explains: "Some of these metaphors have grown into dominate models that have generated theological theories that can never lose their metaphorical roots, although they are theoretical and conceptual." Van Huyssteen (1997:135) notes Peacocke's point that "...these metaphors are so deeply embedded in Christian language that it is extremely difficult to form theories and concepts entirely devoid of metaphor, for even abstract words like *transcendent* and *immanent* partake of spatial metaphors."

¹⁶⁵ Van Huyssteen (1997:136) comments: "The most interesting metaphors in theoretical language are those that suggest an explanatory network and therefore are vital at the growing edges of the sciences and theology. What could therefore never be consistent is the sort of hybrid positions in which some theologians continue to speak of the *cognitive* use of metaphor and models in theological language when only implying the evoking of meaningful religious experience, and thus do not consider the problem of reference or reality depiction at all."

...all categories of interpretation are ignored and theological theories are developed directly from so-called *received* doctrines (1987:19).

According to Van Huyssteen, this *naive realism* mimics *logical positivism* in its rigid belief in the model itself, leading to *theological positivism*:

...where *scriptural proofs* are used as valid arguments (1987:21).

Van Huyssteen remarks that this type of model obliterates theological credibility in its misuse of Scripture.

Furthermore, *instrumentalists*, Van Huyssteen explains, are reluctant to make any ontological claims and therefore take the metaphors and models in Scripture as functional or instrumental in evoking religious experience (1987:21, 23). According to Van Huyssteen, this often leads to a:

...very sophisticated intellectual commitment, where the religious dimension of the biblical text is side-stepped in favour of pure literary analysis (1987:22).

Van Huyssteen's critique of this model is guided by his alignment with critical realism. He claims that the metaphors and models in Scripture only evoke religious experience because they explain something regarding reality. Therefore, Van Huyssteen opts for *critical realism* in approaching Scripture.

A *critical realist*, Van Huyssteen states:

...acknowledges both the creativity of his/her thought, as well as the existence of structures in reality not created by the human mind (1987:24).

Metaphors and models are not to be taken as literal pictures, but they are also more than just useful fictions (1987:25). Van Huyssteen (1987:25) cites Sallie McFague:

Thinking metaphorically means spotting a thread of similarity between two dissimilar objects, events or whatever, the one of which is better known than the

other, and using the better known one as a way of speaking about the lesser known.

Therefore, Van Huyssteen is convinced Scripture is indispensable to the Judeo-Christian tradition, seeing that it has provided metaphors and models basic to the faith of its recipients (1987:26). Scripture is therefore not just useful, but indispensable in theological theory construction.

Nonetheless, there are some issues that need to be addressed when approaching Scripture from a critical realist position. Van Huyssteen explains that whereas scientific reflection wishes to discover the entities and structures of the world and translate them into intelligible models, theological reflection wishes to uncover humankind's search for meaning in terms of Christian faith and translate that into intelligible models (1987:27). It is believed that these models refer to God, but a critical realist stance would be misapplied if used as *proof* for the existence of God (cf. 1987:27). Van Huyssteen expresses this as follows:

The realist argument opens up a way to reliable and valid assertions about the Reality to which we are ultimately committed to and which we have come to call God (1987:28).

Thus, the critical realist is not justified in using the metaphors and models received through Scripture as *proof* for the existence of God. While the experience that led to the formation of the metaphor is real and refers to reality, it is, nevertheless, a metaphor constructed through the agent's interpretation of that experience. Therefore, while truly referring to reality, it is not true in itself. The metaphor is a way of explaining (knowing) something by using that which is known. However, the metaphors received through Scripture cannot be appropriately interpreted without Scripture. Therefore, once again, Scripture becomes indispensable in the sense that it:

...becomes a reality that functions epistemologically as a very exclusive access to the Reality of God (1987:30).

This is what Van Huyssteen means when he writes about the *realism of the text*.

The fact that the Bible has survived as a religious text and is still conducive to religious experience makes it an invaluable resource in theological reflection. Van Huyssteen comments that:

It allows us to refer to God without describing God (1987:31).

Van Huyssteen explains that Scripture can never function as objective, *pure* foundation for theological reflection, but rather becomes a crucial part of theological arguments, hypotheses or estimations about the Reality believers have come to call God (1987:33). Even though multiple readings, interpretations and uses of Scripture are possible, they have their own inner hermeneutical limits, which is why Van Huyssteen:

...opts for the possibility of a meaningful plurality of interpretations of the biblical text, which is not the same as committing the text to the relativism of an infinite number of possible interpretations (1987:38).

The implications of Van Huyssteen's argument is that the continuing metaphors found in the Judeo-Christian tradition are of the utmost importance if theologians wish to appropriately reflect on the Reality believers have come to call God. Theological reflection means to render intelligible that to which the metaphors refer. Van Huyssteen refers to this as:

...a hermeneutics of the text's referential intentionality (1987:42).

This can be seen in his work on the *imago Dei* metaphor in his Gifford Lectures (2004), *Alone in the World?* (2006). In this publication Van Huyssteen takes up the task of interpreting the important and deep-seated metaphor of the *imago Dei* in the Judeo-Christian tradition in an interdisciplinary conversation with proponents of evolutionary epistemology, paleoanthropology and neurobiology. In doing so, Van Huyssteen illuminates the importance of religious experience in the lives of *Homo sapiens* as well as its close connection to scientific reflection. However, it does become important to clarify the status of ontological claims in disciplines, especially the claims made by

theologians about the transcendent in reality. The work of Richard Dawkins is useful for addressing the status of ontological claims.

Richard Dawkins¹⁶⁶ writes that humans seem to be compelled to see purpose in their lives. He claims that the illusion of purpose is strong enough to have even biologists assuming *good design* in their reflections (1995:115). He, however, is famously (or infamously) committed to the belief that there is no purpose to life. Life in this universe is the result of an unplanned, contingent accident. Hence, Dawkins is committed to the conviction of the purposelessness of life in the universe. Nevertheless, humans tend to seek purpose and Dawkins explains it in a rather reductionist evolutionary way:

The desire to see purpose everywhere is a natural one in an animal that lives surrounded by machines, works of art, tools and other designed artifacts; an animal, moreover, whose waking thoughts are dominated by its own personal goals (1995:112).

Here, Dawkins discusses the idea of design by referring to *God's utility function* and argues that if there were design in nature *God's utility function* would be a bit out of sorts. Dawkins clarifies this statement by explaining the fact that some have to die so that others can live and the distribution of life does not seem to be coming from a loving, involved God. Be that as it may, Dawkins understands the human inkling of purpose to be the result of environmental conditions without any reference to an ontological reality.

Furthermore, Dawkins suggests that:

Science shares with religion the claim that it answers deep questions about origins, the nature of life and the cosmos. But there the resemblance ends. Scientific beliefs are supported by evidence, and they get results. Myths and faiths are not and do not (1995:37).¹⁶⁷

¹⁶⁶Richard Dawkins is a British evolutionary biologist. Dawkins is an atheist and humanist. He is well known for his criticism of creationism and intelligent design. In *The God Delusion* (2006), Dawkins contends that a supernatural creator almost certainly does not exist and that religious faith is a delusion.

¹⁶⁷ Polkinghorne (1998a:20) states: "Science should be part of everyone's worldview. Science should monopolize no one's worldview."

Van Huyssteen disagrees with this proposition. Theology, as reflection on religious experience, does not intend to explain how the universe came to be or how it works. Theology reflects on *views of life* which include or generate religious experiences that seem to illuminate a dimension of reality, which clarifies how one could (or should) understand oneself within this universe. Theologians and the scientists share the responsibility of being rational agents reflecting on dimensions of reality. However, Van Huyssteen adds:

...the experiential and interpretative roots of religious knowing...are much more complex than the mostly empirical roots of scientific knowledge (1997:256).

Van Huyssteen argues that a modest form of critical realism claims that:

...it is precisely the interaction between our thoughts and the world that conditions our sense of order, beauty, regularity, symmetry, and elegance (1997:257).

In other words, Van Huyssteen agrees that evolutionary pressure coordinates the human mind with its environment and therefore also argues that it is this coordination that justifies a modest form of critical realism in theological reflection (1997:257). Van Huyssteen points out that Rescher argues that a broad sense of realism has two inseparable, indispensable components. The first of these, the existential and ontological component, maintains that there is a world independent of one's mind – a physical reality (cf. 1997:258). The second, the cognitive and epistemic component, maintains that to some extent knowledge about this physical reality is obtainable (cf. 1997:258). The genius of Rescher's position on realism, according to Van Huyssteen, is that:

...the ontological component...is not a matter of discovery or the result of argument, but rather a functional or pragmatic presupposition for our inquiries (1997:259).

As Van Huyssteen's puts it:

...this view of realism is a position to which we are constrained not by the push of evidence, but by the pull of purpose (1997:259).

It is the fallibility of knowledge that implies an epistemic humility, which acknowledges that there is more to reality than can actually be known. Even scientists need to acknowledge this fact, seeing that cosmologists, such as Steven Hawking,¹⁶⁸ argue there are more than *the usual four* dimensions to which we are privileged (Hawking 1988:173). This, however, should not be construed as being an argument for the existence of God, but as an argument for the hypothetical, tentative and fallible nature of human knowledge. All ontological claims are always functional presuppositions, allowing theologians and scientists to gather information about reality, interpret it and propose a tentative, working explanation.

Furthermore, Van Huyssteen explains that when it comes to committing faithfully to a claim about the reality believers have come to call God, it is not just a way of explaining the world, but it is more:

...like trust in a friend or a spouse than like a belief in a scientific theory (1997:265).

Here Van Huyssteen indicates that theology and science are indeed two very different kinds of reflective activities, though, in a postfoundationalist view, the one is not necessarily more rational than the other (1997:265).

Returning to Scripture and how it might be used in a postfoundationalist theology, Van Huyssteen explains it by focusing attention on three concerns:

1. The status of the biblical text;
2. Understanding the biblical text; and
3. The authority of the biblical text (1997:140-160).

¹⁶⁸ Stephen Hawking is a British theoretical physicist and cosmologist. He is known for his contributions to the fields of cosmology and quantum gravity, especially in the context of black holes. He authored *A Brief History of Time*.

Concerning the first, Van Huyssteen points out that one reads as a person who seeks, belongs and acts (1997:140). He explains this:

Whatever we might say about the authority of the Bible it is directly related to the process of theorizing, which not only reflects our most basic and direct faith-experiences, but also our implicit intellectual decisions taken even *before* we approach the text (1997:141).

Believers are introduced to the Scriptures by a particular tradition and no single view of the Bible can be *true*. However, in evaluating a tradition's presentation of Scripture, one first has to determine the appropriateness of the tradition's view to the text itself.¹⁶⁹

Reflecting on this issue, Van Huyssteen turns to the work of Schubert Ogden, who subjects the Protestant principle of *sola Scriptura* to critique and provides two reasons for this critique:

1. The growing dialogue between Protestant and Roman Catholic theology; and
2. Continuing developments in the historical-critical understanding of the Bible (Van Huyssteen 1997:142).

Van Huyssteen adds two more reasons:

3. A rather violent reaction in Protestant theology against the epistemic primitivism of all forms of fundamentalism, so often posing as *biblical* theologies in spite of the naive realist structure of this model of thought; and
4. The complex and challenging developments in modern literary criticism, especially reader-response theories and postmodern philosophy of deconstruction (1997:143).

¹⁶⁹ Van Huyssteen comments (Van Huyssteen 1997:141): "The fact that we always seem to have a highly theorized and contextualized view of the Bible obviously implies that the Bible itself can never be the so-called objective, foundationalist, and *pure* basis for theological arguments..." However, Van Huyssteen adds that epistemologically, the Bible has a crucial part in theological arguments (cf. 1997:141).

Van Huyssteen explains that so-called *biblical* theologians do not construct theories based on Scripture, but use Scripture within more comprehensive arguments (1997:143). They cite selected biblical texts as support for broader theories or arguments without taking into consideration the context in which they were written. This leads Van Huyssteen to ask:

When using the Bible in an argument, what aspects of, or what patterns in the Bible, are taken to be authoritative? (1997:144).

According to Van Huyssteen, David H. Kelsey suggests that theologians make these decisions based on what they take to be the essence of Christianity (1997:144). For Van Huyssteen the root-metaphor of Christian Scripture is *redemption in Jesus Christ*; however, he argues that no statement derived from Scripture can be an authoritative statement by itself (1997:145). There have to be reasons outside of Scripture to support the authoritativeness of such statements. Van Huyssteen starts to develop his response to this issue:

The Bible, although interpreted differently by different groups, has its own inner hermeneutical limits (1997:146).

This should limit the range of interpretations.

Addressing the second concern regarding the use of Scripture in a postfoundationalist theology, namely understanding the text, Van Huyssteen argues that the literary criticism and analysis of all applicable schools should be applied, because Scripture is literature (1997:147). It is important, though, Van Huyssteen adds, to bear in mind that Scripture is always religious text responding to religious questions and therefore a responsible hermeneutics is needed (1997:147). A historical approach is concerned with the origin and source of the text, whilst structural critique focuses on the structure of these texts. However, Van Huyssteen suggests that an interesting approach for the postfoundationalist entails examining the relational nature between the writer and the reader's response (1997:147). In this sense a text becomes something autonomous once

written – even the intention of the author becomes only a part of the text's function (1997:148). Van Huyssteen explains this:

...the text itself now lives only *in relation to a reader*. In fact, it comes to life through the reader. The reader, in this relational way, thus revives the text and gives new meaning to it (1997:148).

Still, Van Huyssteen adds, as with particular views of Scripture, the text itself will only permit particular readings and resists others (1997:148). The text has its own inner limits which set the boundaries of interpretation. As such, the writer and the reader of the text have a direct influence on the reality of the text.

According to Van Huyssteen, David Tracy and Paul Ricoeur, amongst others, emphasise the reception of the biblical text (1997:149). Van Huyssteen points out that Ricoeur suggests understanding the Bible as an *open* book and that reading it is a creative and constructive activity (1997:149). Van Huyssteen is also inclined towards a reader-response approach, because, he explains, the root metaphors help construct an overall theme that governs the whole process of interpretation beyond a specific text (1997:150). Van Huyssteen observes that Ricoeur moves even further and links this reader-response approach to intertextuality (1997:150). Van Huyssteen explains that in the process where one text refers to another, it displaces that text, but at the same time it receives an extension of meaning from it. Hence:

The Bible is not simply an arsenal of important metaphors that evoke religious experience because they refer realistically. Even before the origin of what we have since come to know as the written Bible, the *Word of God*, these metaphors generated a dynamic process of metaphorization that not only has made it possible for Christians through the ages to interpret these ancient texts creatively, but also has provided *in the metaphors themselves a continuity of reference, in spite of the so often divergent interpretations of the biblical text* (1997:150-151).

This leads Van Huyssteen to formulate three reasons why the reader-response approach to understanding Scripture is important:

1. The text evokes religious experience;
2. It implies ontological commitment; and
3. It provides, through the metaphorical nature of the central concepts of biblical language, a striking continuity of reference in the history of Christian thought (1997:151).

Furthermore, Van Huyssteen suggests that:

Critical realism in theology reclaims the importance of reference as well as the continuity of what is being referred to, in spite of important historical and sociological shifts in the creative development of our theological knowledge (1997:152).

However, the biblical text is not complete until it has been received and read. Van Huyssteen elaborates on this point by adding that:

...the real or implied authors of these ancient religious texts were ultimately committed to a Reality; and their faith in this Reality, which we have come to call God, in fact preceded the text itself. It is to this Reality that the text ultimately keeps on referring and this continuous reference is the essence of what we have come to call the realism of the text (1997:153).

Concerning the third, namely the authority of the biblical text, Van Huyssteen explains that:

The mere ability of the Bible to evoke response as a religious text on a theological level becomes intelligible only through meta-theological epistemic criteria,¹⁷⁰ and of course through the insight that the Bible itself forms a crucial part of the critical realist argument (1997:153).

¹⁷⁰ Van Huyssteen (1997:153) notes J. Barr's suggestion: "...the effectiveness of the Bible, as a document for the believing Christian community, is directly related to the extent to which the study of it is shared by the believing community with the academic world."

The Bible, as we know it today, is in a fixed, written form and no texts have been added to it, which has provided a fairly definitive structure for Christian tradition. What is important, though, for understanding the status of the Bible in the Christian tradition and its epistemological status in theological reflection Van Huyssteen sums up as follows:

1. The fact of the church's eventual historical decision to constitute these classical texts as the Bible; and
2. The congruence of this fact with the fundamental structure of the preceding Christian faith (1997:155).

Van Huyssteen suggests that these two facts support the arguments for a qualified form of critical realism in theology (1997:155). He explains that the church's decision to construct a canon of selected texts, as well as the processes of metaphorization and intertextuality, has formed a *classical model for understanding God* (1997:155). This decision reveals sensitivity to the inherent *religious logic* or *theological consistency* of these texts. This move meant that:

All later expressions of faith were *Christian* only because they could relate to the classic models of faith as expressed in the biblical texts.¹⁷¹ Christian faith is therefore Christian faith because it directly refers to Jesus of Nazareth and the God of Israel. And the collection of religious texts we call the Bible is our only and exclusive epistemological and spiritual access to this reality (1997:156).

Van Huyssteen then explains how the biblical text could be understood as inspired, rendering it different to other texts. He begins by linking the idea of *inspiration* to the biblical metaphor of *revelation* (1997:157). In a critical realist argument, Van Huyssteen explains, the concept of revelation is understood as:

¹⁷¹ Interestingly, Van Huyssteen (1997:156) understands the writings of the Old Testament to "...contain the most fundamental presuppositions, and in this sense provide all the main concepts, symbols, and metaphors, of the Jesus-kerugma of the earliest church."

...a metaphorical depiction of the reality of the originating process of the Bible and of certain experiences of faith in the biblical text, which in their referring to a reality beyond our intellectual grasp became a disclosure of the reality of the presence of God (1997:157).

Van Huyssteen makes it clear that *revelation* should not be interpreted literally and used to form foundationalist or fundamentalist theology (1997:157).

Furthermore, regarding the metaphor of *inspiration*, Van Huyssteen suggests that it refers to a *quality* of the text (1997:158). Interestingly, according to Van Huyssteen, *inspiration* relates to both the process of writing and reading (1997:158). Van Huyssteen explains:

The biblical text has a quality of inspiration because, apart from the long process of its origin, there has been, and still is today, a community of readers who can – in the presence of God or *under the guidance of his Spirit* – respond to the referential power of this text (1997:159).

Thus, Van Huyssteen states that the classical biblical text remains the central and decisive factor in judging (Christian)¹⁷² theologies (1997:160).

Van Huyssteen explains that the use of the word *theologies* acknowledges the multitude of traditions and, because traditions are the first contact with the Scriptures, theologians need to examine traditions as well (1999:240). The Christian tradition itself, according to Van Huyssteen, is a series of local theologies, which means theologians have the complex task of taking both its contextual and universal dimensions seriously (1999:241).

¹⁷² Commenting on this, Van Huyssteen notes E.O. Wilson's suggestion that human kind as a species yearns to have ultimate meaning and purpose larger than itself and religion used to provide such meaning. However, according to Van Huyssteen (1999:236), Wilson argues that "...if the natural sciences can attain this unity of knowledge, then the classical Christian Scriptures can be demoted as *the first literate attempt to explain the universe and make ourselves significant in it.*" Therefore, Wilson suggests that the sciences are better equipped to attain the original goals of religion. In other words, science can satisfy religious hunger much better. This leads him to argue for a cross-disciplinary approach that can create a common groundwork of explanation. Van Huyssteen, however, finds Wilson's approach reductionist and lacking in epistemological awareness (1999:236).

In addition, Van Huyssteen explains that the term *local theologies* does not only refer to the cultural embeddedness of these theologies, but also to the fact that these theologies grew out of very specific experiences (1999:241). This leads him to make a move which addresses the issue from a new perspective:

Talking about the problem of pluralism and tradition in this way inevitably leads us to reflect on how the problem of cognitive pluralism relates to tradition, and how this relationship as such is deeply embedded in the more general problem of *rationality* (1999:242).

Here Van Huyssteen refers to the work of Calvin Schrag on *transversality*. Van Huyssteen explains that Schrag's *transversal rationality* describes a characteristic of rationality and refers to *how* one's beliefs and practices, habits of thought and attitudes, prejudices and assessments come together in time and space (1999:247).

Transversality also implies that all experiences are temporally and spatially situated (1999:248). As such, all discourse – be it scientific, moral, ethical, religious or aesthetic – is embedded in the context which inspires the postfoundationalist to fuse epistemology and hermeneutics to form a way of understanding from within the context, whilst being able to transcend it, as Van Huyssteen points out:

...it is the task of explanation to focus on the more detailed parts of discourse and to provide an analytical explication of their functions, but always while aware of the role of these specific functions within the gestalt of discourse as an emergent whole (1999:249).

Therefore, by incorporating transversality, postfoundationalists can create a safe space where different discourses and actions can and will reveal a link with one another and at other times reveal a contrast or conflict (1999:150). Van Huyssteen notes that David Tracy discusses a similar notion of a shared space in which rational agents can engage each other; Tracy calls this an *authentic public realm*:

...a shared rational space where all participants, whatever their other particular differences, can meet to discuss any claim that is rationality redeemable (1999:250).

This, however, still leaves the question of how one is to transcend tradition. Transversality creates a space for interaction, but how does one understand tradition to allow for transcending it, especially if the Christian tradition generally tries to preserve continuity with the event and person of Jesus Christ?

Van Huyssteen turns to the work of Delwin Brown, who reflects on this issue and suggests that the behaviour of tradition is influenced primarily by both *continuity* and *change* (1999:254). Furthermore, a tradition is fundamentally pragmatic, because it has to do with survival, power and legitimation, which implies that a tradition creates, sustains and recreates (1999:254). Van Huyssteen suggests that this should empower theologians to criticise their respective traditions, whilst standing firmly within them, because tradition is a human activity which humans construct and direct as a community. Tradition needs involvement, which includes critique. However, theologians also need to allow:

...a particular history to speak for itself without being subsumed under the umbrella of an all-encompassing theory, based on a series of texts and interpretations we have endowed with a particular authority, and which then function as the accepted ideology of a specific community (1999:254).

Van Huyssteen also appropriates this notion for interdisciplinary conversation and recommends that research traditions be understood as comprehensive *fields of concerns* which reflect consensus and dissent, continuity and discontinuity (1999:254). If this is the case, then the primary task of critical theologians, according to Van Huyssteen, is to examine their traditions and allow the present to be reshaped along the lines of what their traditions truly stands for (1999:254). In other words, the task of critical theologians is to distil the essence and intent of their traditions and re-appropriate them for the present.

It is also important to Van Huyssteen that theologians evaluate and choose a tradition. Here it is crucial to understand that a research tradition is a problem-solving network that attempts to render a specific experiential scope intelligible. To evaluate tradition, Van Huyssteen turns to the work of Larry Laudan, discussed above. Van Huyssteen remarks that this is an ever-present process, because the Christian tradition will always be in conversation, be it internally or externally. Van Huyssteen explains:

...since all attempts to clarify Christian beliefs necessarily involve dependence on categories not drawn from the Christian tradition, as well as the use of general notions such as truth, meaning, coherence and reference, Christian theology will always find itself in necessary discourse with other theologies, and with the science and philosophy of its time (1999:262-263).

This, inevitably, leads to the discussion on the postfoundationalist approach to interdisciplinary conversation and reflection. Thus far Van Huyssteen has argued for a postfoundationalist notion of rationality, which transcends foundationalist and nonfoundationalist notions of rationality by proposing an epistemic goal and epistemic values that allow for a more comprehensive notion of rationality:

The epistemic quest for *optimal understanding* and *intelligibility*; and the epistemic skill of *responsible judgement* involving *progressive problem-solving* (1999:12).

In doing so, Van Huyssteen illuminates the *shared resources of human rationality* and argues that theological and scientific reflection are engaged in a kind of discursive duet. The *transversal* characteristic of human rationality empowers scientists and theologians to identify and discuss shared concerns without endangering the integrity of their respective disciplines.

Van Huyssteen then explains how postfoundationalist theology functions and he discusses the intrinsic public nature of such a theology. It is a theology with a focus on religious experience or *views of life* that include a religious commitment which

generates religious experience. As such, postfoundationalist theologians find their problems in and out of the domain of the church. Furthermore, postfoundationalist theologians do at times generate problems that cannot be solved within the discipline itself. Therefore, it is not only in the nature of postfoundationalist theologians to seek interdisciplinary conversational partners, but they are also dependent on interdisciplinary conversation and reflection for the continued existence of their reasoning strategy. It is for this reason that a clear understanding of the working of interdisciplinary conversation and reflection is imperative.

Part Three – Postfoundationalist Facilitation of Interdisciplinary Conversation and Reflection

In *Rethinking Theology and Science: Six Models for the Current Dialogue* (1998), Van Huyssteen and Gregersen have compiled six different approaches to interdisciplinary research in theology and science today. These approaches range from seeing theology and science as complementary to understanding them as incompatible. Van Huyssteen and Gregersen comment that the first generation of scholars in this field, J. Polkinghorne, A. Peacocke¹⁷³ and I. Barbour, are all still shaping the dialogue and agree that theology and science can be harmonized (Van Huyssteen 1998b:2). They do, however, differ on how this harmonization should take place. Van Huyssteen and Gregersen explain:

All three agree on how important it is to realize that scientific concepts should be allowed to mold and influence theological thought, but significantly differ on where they would want to place themselves on a spectrum ranging from varying forms of epistemological consonance, on the one end, to methodological and conceptual integration on the other (1998b:2).

However, Van Huyssteen and Gregersen explain that all three scholars of the first generation adopt a critical realist stance and agree that theology and science are embedded in contemporary culture (1998b:2-3). Van Huyssteen and Gregersen point out that Polkinghorne calls himself, Peacocke and Barbour *revisionists* attempting:

...to break through the modernist polarization of religion and science by defending the thesis that religion (and therefore also theology, as a reflection on religious experience) make important and novel cognitive claims (1998b:2).

¹⁷³Arthur Peacocke was a biochemist. In 1971 he was ordained as a priest in the Church of England and in 1986 he founded the Society of Ordained Scientists to further advance the development of the field of science and religion. Among his major publications are *Creation and the World of Science* (1979), *Intimations of Reality: Critical Realism in Science and Religion* (1984), *Theology for a Scientific, God and the New Biology* (1994).

The differences among the first generation of interdisciplinary theologians regarding method can also be found in the second generation. This fact becomes abundantly clear in *Rethinking Theology and Science*. Van Huyssteen, however, not only wants to break free from the modernist polarisation, but also from postmodernist relativism. He claims that:

Human rationality has many faces, many dimensions and complex resources: some are cognitive, others evaluative, others pragmatic (1998b:7).

Therefore, Van Huyssteen does not want to try and harmonise or synchronise the knowledge claims made by theologians and scientists, but delves deeper into *how* one forms a knowledge claim as such. Consequently, he explores human rationality itself and the epistemic values that shape it.

Van Huyssteen's investigation leads him to distinguish between foundationalist and nonfoundationalist approaches. Arguing that both foundationalist and nonfoundationalist have strong and weak points, he moulds a postfoundationalist approach with epistemic values that incorporate the best of both epistemic approaches. He proposes that rationality should be understood as:

...the responsibility to pursue clarity, intelligibility and optimal understanding as ways to cope with ourselves and our world (1999:2).

Rationality understood this way is shaped by epistemic values he expresses as:

The epistemic quest for optimal understanding and intelligibility; and the epistemic skill of responsible judgement involving progressive problem-solving (1999:12).

Furthermore, a postfoundationalist approach does not work with abstract beliefs or convictions, but rather with rational agents. This automatically incorporates the context within which beliefs and convictions are formed. Not only does the rational agent become extremely important, but *transversality* is illuminated as the most important epistemic value in interdisciplinary conversation. It is transversality that allows each discipline to shape its own methodology, without needing to copy the methodology of other disciplines. This move implies that each discipline needs to refocus and redefine its respective boundaries/ domain. In the case of theology the focus is now on religious experience or *views of life* which include a religious commitment which generates religious experience. The boundaries of theology are shaped by this focus and in a similar fashion science's boundaries are drawn with respect to its focus. Consequently, interdisciplinary conversation is engaged in from a specific research tradition, with a specific focus, by specific rational agents, including their respective commitments, regarding specific transversal points. Within this transversal space interdisciplinary conversation can take place.

In short, Van Huyssteen reshapes the understanding of human rationality by drawing on the philosophy of science, evolutionary epistemology and paleoanthropology. This allows for various disciplines to preserve their own rational beliefs. However, this does not render rationality itself relative (or contextual), but rather renders the rational beliefs formed within these various disciplines contextual. Turning to his own tradition, Christian theology, Van Huyssteen reshapes his tradition according to the epistemic values he argued for above. As a result of this, theologians become public theologians capable of lending their insights to the public discussion on how to understand the world and ourselves in it. Now, with a credible public theology, the theologian can enter interdisciplinary conversation meaningfully.

Chapter Five – Postfoundationalist Interdisciplinary Conversation

Seeing that Van Huyssteen takes religion and science as influential and dominating forces in culture, he suggests that:

...the basic human conviction that our complicated and often very mysterious world is also highly intelligible should also motivate us to search intensely for at least some plausible, comprehensive theory of human knowledge (1998a:41).

The conversation between theology and science, however, has not been characterised by mutual respect in the past. Van Huyssteen (1998a:41-42) points out that Polkinghorne describes the conversation over the last few decades as entailing:

1. A rejection of reductionism and a new awareness of the hermeneutical dimension of science;
2. A fairly pervasive understanding of the evolutionary universe as being compatible with the Christian theological doctrine of creation;
3. A revival of what many are calling a new theology of nature, or a cautiously revised form of natural theology;
4. The realisation that theology and science share a mutual quest for intelligibility; and,
5. An ongoing reflection on how physical processes might be sufficiently open to accommodate the acts of agents, both human and divine.

Van Huyssteen explains that postfoundationalist theology is by nature *public* theology, which also implies interdisciplinarity. However, he argues that one can enter the interdisciplinary arena with one's convictions intact. Actually, it is essential that one enters the interdisciplinary arena with one's convictions intact. For the philosophical theologian this raises an important question:

Do we still have good reasons to stay convinced that the heart of the Christian message does indeed, provide the most adequate interpretation of our experience with our world, our culture(s), and ourselves (Van Huyssteen 1997:215)?

Van Huyssteen reflects on this question by stating that both scientists and theologians are in awe of the power of human reason and imagination (1997:216). The reason for this, according to Van Huyssteen, is that human reason and imagination so abundantly exceed the demands for biological survival (1997:216). Furthermore, the ability of the human mind to represent aspects of reality, inaccessible to the ordinary senses, is astounding (1997:216). Taking this into account, Van Huyssteen formulates two challenges that the theologian faces:

1. The theologian needs to try and preserve, in a meaningful whole, continuity in the Christian tradition without succumbing to political or confessional authoritarianism; and
2. The theologian must ponder whether there is any continuity between Christian theology and the general human enterprise (1997:217).

As such, Van Huyssteen suggests the discussion between theologians and scientists presents itself as a contemporary apologetics¹⁷⁴ for the Christian faith and experience of God (1997:221). Van Huyssteen reminds us that human intelligence seems to be synchronised with an intelligible universe (1997:219) and therefore scientists believe that the world is intelligible to the human mind. He writes that:

...even if the origin of the cosmos may ultimately be unintelligible, nature itself is eminently intelligible and reflects the same rationality as the human mind (1997:219).

¹⁷⁴ Van Huyssteen (1997:218) notes Christopher Kaiser's argument that "...the problem of the God-and-science relationship in the Judeo-Christian context goes back at least as far as the second century B.C." Van Huyssteen, however, is not constructing an apologetic theology. He is arguing for the naturalness of religious experience and for an appropriate *why* of forming *religious views of life* that does not need an apologetic approach. It is not about showing the rationality of theological reflection in order to render it a science, but rather illuminating the shared resources of rationality used in both theological and scientific reflection.

Even so, theologians will have to protect the theological domain and the integrity of theological reflection without retreating behind unquestionable and self-authenticating *revelation*. Furthermore, Van Huyssteen urges theologians and scientists to be cautious of what he calls *epistemological shortcuts* and should be aware of the natural boundaries of their own disciplines (1998a:78).¹⁷⁵ Van Huyssteen explains what he means by an epistemic shortcut. Taking the Big Bang theory as an example, theologians will have to realise that if there was an act of creation, it will look like what cosmologists call the Big Bang¹⁷⁶ (1997:224). But theologians would be misdirected if they use the Big Bang theory as *support* in a doctrine of creation;¹⁷⁷ however, scientists would also be misdirected to use a doctrine of creation to *support* the Big Bang theory. Van Huyssteen explains:

Theology can...never claim to be capable of scientific theory-appraisal, but should rather be seen as one element in the constructing of a broader cultural worldview (1997:224).

Theological reflection, like scientific reflection, contributes to the construction of worldviews. Theologians may not validate or try to disprove scientific claims, nor may scientists validate or try to disprove theological claims. As such, any disagreements that may arise between theologians and scientists are not rooted in conflicting truth-claims, but rather in incompatible worldviews or philosophies (cf. Van Huyssteen 1997:225). In this sense, there is no conflict between science and religion or theology, but rather a disagreement between philosophies developed for very different reasons and functions in human life.

¹⁷⁵ Stoeger (2010:186) also warns against such shortcuts: "If conflict or incompatibility appear then that is a sure sign that there has been misinterpretation or the transgression of disciplinary limitations on one side or the other."

¹⁷⁶ In *Duet or Duel?* (1998) Van Huyssteen also writes: "...we will have to realize that the theological intent of...the Genesis passages is to underline the dependence of an intelligible and contingent universe on a Creator and not necessarily to specify a first moment in time, at least not in the technical sense of contemporary cosmology."

¹⁷⁷ Van Huyssteen (1998a:44-45) comments that "...it would be a serious mistake to take epistemic shortcuts directly from, for example, the Big Bang to creation, from field theory to the Spirit of God, from chance to providence, from entropy to evil, or from the anthropic principle to design."

Furthermore, the postfoundationalist, according to Van Huyssteen, engages in conversation with rational agents, rather than rational beliefs or systems. This, innovatively and automatically, acknowledges the context from which the rational agent engages in the discussion. This fact needs to be recognized by all participants, so that it allows the other participants to discuss not only the arguments, hypotheses and proposals made by agents, but equally place them in context, illuminating the intent, goal or purpose of such claims. For example, Richard Dawkins published a book entitled *The God Delusion* (2006), which led his fellow Oxford professor, Alister McGrath,¹⁷⁸ to publish a book entitled *The Dawkins Delusion* (2007). Now, the postfoundationalist does not understand this as a conversation between *science and religion* or *science and theology*, but rather as a conversation between Dawkins with his contextually embedded interpretation of evolutionary biology, and McGrath with his contextually embedded interpretation of Christian theology, on the issue of the existence of the reality believers have come to call God – more specifically the importance of religion as such. Therefore, this represents two rational agents engaging each other rhetorically on the existence of God or, at least, the relevance of Christian theology for believers' self-understanding in this world. The postfoundationalist interprets this conversation neither as a conflict between scientific and religious worldviews, nor scientific and theological worldviews. Rather, it is a rhetorical conversation between Richard Dawkins's worldview and McGrath's.¹⁷⁹

In such a conversation the participants evaluate each other's convictions by discussing the reasons they offer for holding their respective beliefs. It is at this point that clarity is needed on the epistemic focus, experiential resources and heuristic devices of each participant's reasoning strategy. This is important with regard to the validity of such a conversation, because the postfoundationalist engages interdisciplinary conversation

¹⁷⁸ Alister McGrath is a Christian theologian and apologist, who holds both a DPhil (in molecular biophysics) and a Doctor of Divinity degree from Oxford.

¹⁷⁹ Mikael Stenmark (2010:286) makes a further observation: "...the relationship between science and Christianity at any one time might look quite different from the relationship between science and Buddhism at the very same time." He also remarks that the Dalai Lama thinks that certain aspects of Buddhist thought will have to be modified in the light of scientific discoveries. This being said, the Dalai Lama also believes that it is possible for Buddhism and modern science to engage in collaborative research in the understanding of consciousness which might enrich both partners (Stenmark 2010:286).

concerning identified transversal points or shared variables. In order to identify such transversal points, the domain on which each discipline reflects needs to be clear. One discipline cannot make a conclusive knowledge claim about a domain of reality on which a different discipline reflects. Therefore, the boundaries of each discipline need to be established, after which transversal points might be identified and brought to the table for discussion.

Furthermore, recognising that reality is multidimensional, the *issues* some disciplines have with each other might not be in direct conflict, but rather rational in their respective claims, albeit on different dimensions. In the case of theology and science this mistake is often made and clearly illustrated in Van Huyssteen's engagement with Steven Hawking, Richard Dawkins and Paul Davies¹⁸⁰ with regard to the boundaries of science and theology respectively.

In *Duet or Duel? Theology and Science in a Postmodern World (1998)*, Van Huyssteen once again stresses the importance of scientific reflection and its significance for self-understanding (1998a:1). He explains that religion's more acute focus on humanity's search for purpose, has:

...always provided a cosmic setting in which individual lives have found their own significance (1998a:2).

However, the setting provided by religion needs to be reinterpreted, since:

We know the size, age, and extent of our universe, and we know the deep evolutionary history of our planet and ourselves as part of this magnificent story (1998a:2).

¹⁸⁰ Paul Davies is a theoretical physicist, cosmologist and astrobiologist. His research has ranged from the origin of the universe to the origin of life, and includes the properties of black holes, the nature of time and quantum field theory. Davies won the Templeton Prize for his work on science and religion.

Van Huyssteen agrees with Holmes Rolston III¹⁸¹ that the relationship between physics, cosmology and theology is mostly constructive, but between biology and theology it seems to be one of conflict (1998a:3). Still, in addressing this issue one cannot but engage it from the perspective of another particular tradition. Therefore, one also needs to be in a critical relationship with one's own tradition. Consequently, tradition should not be understood as:

...something which we can presume as an ontological datum, but is rather something we construct out of the phenomenon of history (1998a:19).

Here Van Huyssteen refers to Delwin Brown who:

...also sees continuity and change as primary categories in the dynamics of tradition, and, [acknowledges] that the behaviour of traditions is fundamentally pragmatic and has to do with survival, power and legitimation (1998a:19).

This strengthens Van Huyssteen's claim that one can and should enter an interdisciplinary conversation with one's personal convictions intact, while being empowered to reach beyond the boundaries and limitations of one's own tradition (1998a:21). According to Van Huyssteen, this kind of *reaching beyond* can be seen in the work of physicist-theologian J. Polkinghorne, cosmologist Paul Davies and biochemist-theologian Arthur Peacocke (1998a:33).

In reaching beyond theological tradition, Van Huyssteen suggests that a conversation with contemporary cosmology might enrich theological reflection in dealing with issues regarding theological and scientific worldviews (1998a:47). This is because contemporary cosmology, much like contemporary theology, embraces a variety of disciplines in addressing:

¹⁸¹ Holmes Rolston III is University Distinguished Professor of philosophy at Colorado State University. He is best known for his contributions to environmental ethics and science and religion. Among other honors, Rolston won the 2003 Templeton Prize. He gave the Gifford Lectures in 1997-1998.

...a wide range of unresolved, fundamental issues concerning the character, structure, origin and even the destiny of the universe (1998a:47).

Van Huyssteen explains that in contemporary cosmology, as in theological reflection, it is rarely clear in research and discussion when scientific analysis ends and philosophy or metaphysics begins (1998a:47). Cosmology is by definition an interdisciplinary discipline, engaging numerous scientific disciplines. However, Van Huyssteen once again warns against epistemological shortcuts when in conversation with contemporary cosmologists. It is essential for theologians to be aware of the natural boundaries of theological reflection (1998a:45). For example, taking an *epistemological shortcut* from the Big bang theory to the doctrine of creation, or arguing for design by means of the anthropic principle is not justified (1998a:44-45). Theologians and scientists need to be careful of falling prey to such errors. Nevertheless, contemporary cosmology does have significant implications for theological, as well as philosophical, reflection.

Van Huyssteen elaborates on this by pointing out that one of the chief arguments of contemporary cosmology is that the observable universe is intelligible as a single object¹⁸² (1998a:48). This lends credibility to Van Huyssteen's appeal for interdisciplinary conversation, seeing that theologians and scientists reflect on one shared reality. Furthermore, the universe is described as an evolving universe, thus rendering it unfinished (cf. 1998a:52). Hence, theology and contemporary cosmology:

...often ask the same ultimate questions concerning the origin, history and the future of our universe and of our own place in this ongoing cosmic event (1998a:55).

Van Huyssteen adds:

¹⁸² Van Huyssteen (1998a:49) elaborates on this: "What makes Big Bang cosmology so intriguing for (Christian) theologians is first of all, the fact that Big Bang cosmology presupposes historical time and therefore suggests the possibility of an original beginning with an accompanying eschatology. Secondly, there is Big Bang cosmology's mood of contingency: our universe did not have to become what it is. For many, both of these important issues seem to suggest that science has discovered something that looks a lot like the Christian notion of creation."

...science can and should directly influence theology, and this influence happens when the results of scientific investigation or the methodologies of science directly impact on theology (1998a:55).

In other words, science can and should directly influence theological reflection – that is to say, *if* theologians intend to make knowledge claims about the purpose of the universe.

Van Huyssteen (1998a:55) observes that this leads William Stoeger to point out that theologians should take the general findings of contemporary cosmologists seriously:

...the universe is as large and as old as it is, this universe is evolving, all that is within it has had a common physical origin in time, and that all it contains is explicable by the natural sciences.

However, Van Huyssteen reminds us that cosmologist should also be aware of the limits of scientific rationality and explanations (1998a:56). He explains there will always be explanatory gaps in scientific accounts of the evolutionary development of the universe. These gaps should also not be filled with *god* by theologians. Theologians should remain open to that which science reveals about the world. Van Huyssteen explains:

...even if the sciences, and therefore also cosmology, are self-sufficient at their own level of reflection, it is only through a direct conversation with philosophy, and with theologians who are open to the amazing impact of contemporary cosmology on religion and faith, that the language, the models of reflection, and the worldviews of scientists will be sharpened and will benefit directly from the *duet* with theology and philosophy (1998a:57).

It is exactly at this point that the respective boundaries of contemporary cosmology and theology are very important.

According to Van Huyssteen, in *A Brief History of Time* (1988) Steven Hawking recognises that contemporary cosmology cannot help but venture into conversation with theology (1998a:64). Pondering the origin of all that exists ultimately goes beyond the boundaries of scientific reflection, by means of philosophy, to pondering on the reality believers have come to call God. Therefore, Van Huyssteen explains, Hawking, inevitably stumbles into the domain of theology. On the other hand, theologians also stumble into the cosmological or scientific domain when they regard unexplained territory in science as God – the so-called *God-of-the-gaps* (1998a:56). This is a deeply flawed approach, seeing that the more successful scientific reflection becomes, the less of God there is.

Coming back to the ethos of an interdisciplinary conversation, the postfoundationalist asks who the rational agent is that made the argument, because it is necessary to know the context and worldview of the agent. Concerning Hawking's argument against the existence of God¹⁸³ while drawing on cosmology, Van Huyssteen comments that there is a significant difference between the God of most contemporary theologians and the God Hawking has in mind (1998a:59) – the God he remembers being taught about in Sunday school. Before engaging Hawking, it is imperative to ask what kind of God Hawking rejects,¹⁸⁴ as Van Huyssteen writes:

...the kind of God Hawking is rejecting is a kind of God that would fit our contemporary cosmology and our current scientific theories, a God that is ultimately needed to explain whatever still remains unexplained in science (1998a:63).

¹⁸³ Van Huyssteen (1998a:62) explains that Hawking developed: "...the *No Boundary Proposal* which removes the singularity as the beginning of the universe; and without this *moment of beginning* there would be no need for a Creator (at least in his mind). The startling theological implication of Hawking's proposal is, of course, that the universe needs no transcendent Creator to bring it into existence at zero time ($t=0$), nor does it need God to tune the laws of nature to carry out its (divinely appointed) evolutionary purpose".

¹⁸⁴ Van Huyssteen comments that equating *first cause* and *God* is invalid, because: "...it does not address the existence of God, it simply means that thinking of God as a mere *first cause* is not only seriously deficient, but actually inaccurate" (1998a:63).

Furthermore, Hawking's concept of God, Van Huyssteen comments, is reminiscent of a classical deistic understanding (1998a:64). Hawking rejects a philosophical, abstract, first-cause God and this is not the God in the minds of contemporary theologians. Therefore Van Huyssteen explains:

A proper answer to Hawking will, therefore, first of all include a rejection of this deistic notion of God, but also the realization that for God to be recognized as Creator, it is not necessary for God to be tied down to one 'event' at the 'beginning' of the ancient past (1998a:64).

Additionally, Van Huyssteen points out that Hawking seems to be ignorant of the theological distinction between *ex nihilo* and *creatio continuans*, which implies that the argument for the existence of God does not rely on a particular understanding of an original creation (1998a:65). It must be noted that Van Huyssteen never argues for the existence of God and is not doing so here. He is simply pointing to the fact that Hawking's reasons for disbelief are unfounded. If Hawking intends to engage theological questions, he should make a study of theological movements and insights into this issue. In other words, Hawking should not cross the boundaries of science ignorantly and make claims about an issue he clearly knows little about. If he intends to make theological claims, he should engage theologians regarding this particular issue in open discussion.

Interesting to note here are the thoughts of Paul Davies in his book *The Mind of God*¹⁸⁵ (1992). Van Huyssteen observes Davies changed his earlier position and suggests that

¹⁸⁵ Davies borrows this title from Hawking, but ultimately fundamentally disagrees with Hawking. Davies argued that the sciences offer a surer path to God than religion. However, he later changed his mind and chose mysticism because, according to Van Huyssteen (1998a:68): "...the nature of human rationality, as well as of the laws of nature is such that they alone can never answer the ultimate questions of existence". Van Huyssteen explains the details of this change of mind: "It is indeed fascinating to see, precisely through the fact that the rational nature of our universe is reflected in its basic mathematical structure, that Davies ultimately comes to the point where he has to acknowledge the limits of this reasonableness. The very limitations of mathematic itself was decisively revealed by Gödel in his famous argument that the very axioms upon which mathematics is constructed cannot be proved true or false by the same mathematics...and if this is true for mathematical reasoning...then surely it is true for all other forms of rational human reasoning too" (1998a:71). Nevertheless, the choice for mysticism does not

we may gain a form of ultimate knowledge through mysticism (1998a:68). Davies argues that the human mind has evolved in such a way as to reflect something of the nature of the physical world. However, Van Huyssteen notes Davies's further statement on this:

...evolution can explain why we have developed reflexes to dodge falling rocks, it can't explain why we can understand the laws which govern falling bodies, why these laws are there and why we have the ability to discover them mathematically (1998a:70).

According to Van Huyssteen, this kind of argument can also be seen in the work of certain evolutionary epistemologists. They reject reductionist tendencies in scientific thought, which intend to explain everything according to scientific rules of interpretation. In this sense, scientific reasoning can offer excellent accounts of particular aspects of reality, but not all aspects of it (1998a:76). Furthermore, it is the task of theologians to offer explanations of religious experience, therefore, also implying that science should be left to the scientists (1998a:77).

Van Huyssteen also explains that the inability of contemporary cosmology to explain the Big Bang completely does not make such a theory untrue (1998a:77). It does, however, highlight the fallibility and incompleteness of scientific knowledge claims. Van Huyssteen suggests that the postfoundationalist should not ask if God created the universe with a Big Bang or whether God guides evolutionary processes. Rather, the postfoundationalist asks why it is important for believers to hold the claim that God created the universe (1998a:78). What is the reason for this and is it something that might be understood differently? Therefore, theological reflection should focus on the claim of believers that there is a purpose to the universe. Theological reflection should not seek explanations on how the universe came to be, but rather why religious experience illuminates a purposeful universe. Van Huyssteen elaborates on this point:

satisfy Van Huyssteen, who writes: "The choice for the mystical path may indeed open up alternative ways of understanding here, but actually so does the choice for theology as a systematic reflection of religious experience".

Thus are revealed some of the philosophical and epistemological complexities involved in trying to relate theology and science today...In retrospect many of these serious clashes turn out to be not between religion and science, but between incompatible, even incommensurable worldviews or philosophies (1998a:79).

Considering the anti-theological (or anti-religious) position of biologists such as Richard Dawkins, the same question posed to Hawking is appropriate. What sort of God does Dawkins reject? What is Dawkins's notion of God that leads him to argue so aggressively against the existence of God?

Keith Ward¹⁸⁶ illuminates this issue for Van Huyssteen, arguing that most anti-religious scientists:

...do not consider carefully and rigorously the claims of major theologians, but are content to lampoon the crudest versions of the most naive religious doctrines they can find and thus show a contempt for religion which can only be termed prejudice (Van Huyssteen 1998a:109).

This does not only make Richard Dawkins anti-religious, but anti-scientific, since he does not launch a proper investigation into the domain of theology. He seeks out samples that would prove his point.

However, it must be noted that Dawkins does engage theologians in conversation on occasion. Unfortunately, he sets the stage beforehand and does not accept any point of view that does not keep to the reductionist materialistic position to which he is fundamentally committed. As such, he does not really engage theologians sincerely, since he refuses to accept anything *other* than a materialistic response. Furthermore, Dawkins phrases his argument as one against the existence of God, but on closer examination he actually argues against naive, fundamentalist biblical literalism – a

¹⁸⁶ Keith Ward is a British philosopher and theologian at Oxford. He is a Fellow of the British Academy and an ordained priest of the Church of England.

battle theologians have long been fighting. Therefore, Dawkins is not so much against the existence of God than against the choices people make and act on because of their commitment to particular interpretations of religion. This leads Dawkins to argue that religion is no longer serving the common good and should therefore be rooted out. He motivates this suggestion on two very different grounds, namely the evil that is done in the name of religion, and the lack of empirical data supporting such religious claims.

Disentangling his argument one finds that an appropriate response would be twofold, at least. First, most theologians, especially contemporary Christian theologians, argue against violence committed in the name of God. A significant increase in such arguments can be seen since World War II. Theologians are hard at work against fundamentalist explanations of religion, especially in the Christian faith.

Secondly, responding to Dawkins' argument against the ontology of religious claims, the postfoundationalist would only have to refer to what has been discussed above on the nature of rationality. Furthermore, it would be appropriate to draw Dawkins's modernistic epistemic system into question, which would indicate that Dawkins is not holding true to the arguments of philosophers of science.

Interestingly, Van Huyssteen responds to Dawkins's argument by using Dawkins's own work. Van Huyssteen explains that Dawkins takes the phenomenon of human consciousness to be a deep, philosophically mysterious manifestation of brain activity (1998a:114). Nevertheless, this brain is the product of evolutionary processes and should be investigated as such. Van Huyssteen, in an innovative move, refers to Dawkins's explanation of honey bees and the dances they perform which inform other honey bees where more food is to be found (1998a:117). The bees perform what Dawkins proposes to be a *ritually repeated take-off run*, which could be an activity developed through evolution helping honey bees to survive. Van Huyssteen then argues that religion could be understood as a cultural phenomenon rich in rituals helping *Homo sapiens* cope with their hopes, fears, dreams and quest for ultimate meaning (1998a:117). As such, religion could be understood as helping humanity to survive in this world, as well as helping humanity understand itself in this world.

Furthermore, Van Huyssteen (1998a:117-118) points out that Dawkins, himself refers to religion as a *terrific meme*,¹⁸⁷ but argues that this meme has served its purpose. According to Dawkins, there is no evidence supporting the continued usefulness of this *meme*. Therefore, humanity should eliminate this meme called religion. Van Huyssteen, in turn, argues that this meme is part of what makes us human and cannot be eliminated simply because scientific reflection is incapable of proving it (1998a:118-120). Van Huyssteen broadens this argument in his Gifford Lectures (2004), published as *Alone in the World? Human Uniqueness in Science and Theology* (2006). Here Van Huyssteen, drawing on various disciplines such as evolutionary epistemology and paleoanthropology, convincingly argues that religious experience, along with science and art, is at the root of being human and should therefore form a significant part of the quest for optimal understanding of the world and humanity's position in it.¹⁸⁸

Still, Van Huyssteen remarks that this is not an argument for the existence of God, but rather an argument that the meme called religion is indispensable (1998a:119). Consequently, theologians as well as scientists need to engage interdisciplinary conversation, since, it would seem, that theology and science are inextricably linked in what it means to be human. In the pursuit of intelligibility theologians and scientists have no option but to engage in interdisciplinary conversation, because reality is multidimensional and therefore appropriate explanations of it should also be multidimensional. Escaping modernism, postmodernism, foundationalism, nonfoundationalism and reductionism, the postfoundational theologian enters the interdisciplinary arena, with all its rational agents, in the hope of constructing the best available explanation of experiences that cannot be described as something other than

¹⁸⁷ A *meme* is a term used for units of cultural inheritance (cf. Van Huyssteen 1998:117). A *gene* is a unit of biological inheritance in the process of biological evolution, while the term *meme* is used to refer to cultural evolution.

¹⁸⁸ In "Building Effective Bridges to Culture: God and Redemption in the Work of Richard Wagner." (2007), Van Huyssteen explores the rich interaction between religious experience and art. Interestingly, according to Van Huyssteen, Wagner started to formulate ideas that correlate with some contemporary trends in philosophy and theology. Van Huyssteen explains: "The deeply spiritual experience of seeing and listening to a performance of Wagner's musical dramas reveals his enriched, holistic notion of human cognition, or what in contemporary epistemology is often called *embodied rationality*" (2007:7).

religious. Hence, the conversation between theologians and scientists need not be a constant duel, but could rather be a graceful duet.

However, Van Huyssteen reminds us that religious beliefs play a role in theological explanation. It is important to note, though, that religious and theological explanations do have unique aspects, which needs to be taken into account in interdisciplinary conversation. Van Huyssteen explains that:

...they [religious and theological explanations] are normally all-encompassing and deeply personal, they often arise from vague and elusive questions concerning the meaning of life, and as religious answers they provide ultimate meaning in life (1997:231).

Therefore, Van Huyssteen clarifies that both the experiential scope and content of religious and theological explanations set them apart from explanations in other disciplines (1997:231). Interestingly, Van Huyssteen suggests, it would seem that religious and theological explanations are even more personal than the explanations found in art and ethics.¹⁸⁹

Van Huyssteen clarifies this statement by describing the process towards achieving *religious* explanations:

When...we reflect on a portion of our experience, it is possible to put this reflection on a problem within an ever-broadening horizon of contexts until we reach a context that reaches out to the whole of human experience. At this level one is involved in making sense of total experience and this broadest context could be labelled *metaphysical* or *religious* (1997:233).

¹⁸⁹ Van Huyssteen comments that Thomas Kuhn describes even scientific reflection as an hermeneutical task in developing and constructing its explanations (1997:232).

Here Van Huyssteen refers to the work of Philip Clayton, who offers more detailed insights into these types of explanation in this broader context. Van Huyssteen (1997:233-234) observes that Clayton identifies three types of explanations:

1. Personal explanations: these explanations are warranted solely by the fact that they make sense of experience for the individual believer. Private explanations can be quite comprehensive in scope and can account for broad areas of human experience, but the justification of these explanations is rooted in personal value alone
2. Communal explanations: here the standards of adequate explanations are set by the particular believing and practising community
3. Intersubjective or transcommunal explanations: this category of explanation supposes that religious beliefs can be justified in a way that transcends the boundaries of the individual religious community. Within the Christian community apologetics and natural theology fit this notion of transcommunal justification. Christian beliefs are held as rational and the best available explanation that the believer takes to have more than merely communal validity.

According to Van Huyssteen, it is in exactly the intersubjective category of explanations where the conversation between theologian and scientists can take place (1997:234). However, he remarks that theologians should be cautious of confusing faith as evidence for religious or theological propositions. Faith is not an epistemic virtue or vice (1997:234). Theological explanations have to function as the appropriator of tradition and ensure that the tradition remains relevant to contemporary culture (1997:234-235). Hence, Van Huyssteen draws attention to Clayton's important statement: theology is primarily an explanatory (second-order) endeavour. Theology should not be understood as a primarily descriptive (first-order) endeavour. Therefore, Van Huyssteen agrees that theological explanations should be open to intersubjective examination and criticism, seeing that they are hypotheses (1997:235).

Furthermore, Van Huyssteen suggests that religious experience is better explained theologically, because the philosophical theologian moves from:

...the question of rationality to intelligibility, from intelligibility to the question of personal understanding, and from personal understanding to personal experience (1997:235).

This said, Van Huyssteen believes there are good reasons for calling Western culture emphatically empirical (1997:238). He describes this culture as:

...a culture determined by a tradition where the sciences – especially the natural sciences – not only dominate the way we live our life, but ultimately function as the paradigm and apex of human rationality (1997:238).

Still, many theologians and scientists have argued for the integrity of religion, with religious belief, reflection and practice as valid expressions of the religious dimension of life (1997:239). Religion cannot be reduced to metaphysics or morality and should be viewed as an autonomous moment in human experience (1997:238). These suggestions, according to Van Huyssteen, compete with foundationalist arguments in the sciences and theology. Van Huyssteen explains that in the sciences and in theology there are those who:

1. Believe there are serious conflicts between contemporary science and religious beliefs;
2. Seek knowledge with a secure and incontrovertible foundation, and find this in either logic and sense data (science), or in an infallible scripture or self-authenticating revelation (theology); and
3. Claim that science and theology make rival claims about the same domain and that one has to choose between them (1997:240).

Van Huyssteen points to Barnard D’Espagnat’s statement:

...if someone would want to move beyond the limitations of empirical observation and experimentation, that is, the domain of the natural sciences, in a focused concern for the whole of reality, such a project could therefore not in *advance* be judge to be incoherent, illegitimate, or irrational (1997:241-242).

Van Huyssteen explains why one need to give attention to and be aware of the difference between religion and theology, and why he makes this distinction in his own approach to rationality and interdisciplinary conversation; he argues that theologians and scientists should be in conversation:

Special attention needs to be given, for instance, not only to differences and apparent contrasts between science and religion, but also to the important distinction between religion and theology. For instance, it will not be enough to allow only for crucial differences between, say, mysticism and scientific rationality when theological reflection also presents itself as a form of knowledge - and then as a form of rational reflection that not only may differ from mysticism in important ways, but in fact even overlap significantly with scientific rationality (1997:242).

Van Huyssteen adds that a postfoundationalist notion of rationality still requires serious assessment of evidence and:

...we should therefore find our best examples of rationality in an area or field where the most reliable evidence is systematically gathered and deployed (1997:255).

In other words, scientists should engage theologians, because theologians reflect on religious experience and systematically gather *evidence* (explanations). It is not a question of whether there is an ontological reality to which religion refers, but rather a question as to the level of intelligibility of explanations regarding these interpreted experiences. Van Huyssteen argues that a commitment to critical realism allows the theologian to offer the best possible estimations of the *truth* or *reality* of religious

experience, because critical realism implies that the human mind is in some way correlated with reality. Van Huyssteen explains:

What is at stake in this postfoundationalist model of rationality is not so much the ontological question as to the existence or not of the *real world* (mind-independent or not, as in the realism/antirealism debate), but rather the status of our knowledge of reality as presupposed in the epistemic process (1997:258).

Van Huyssteen also argues that evolutionary epistemologists illustrated the fact that the evolutionary process synchronises human brains and minds with the environment in such a way that humans can form expectations of the environment and act accordingly (1998a:159). This is a strong argument for realism. Therefore, a distinction should be made between theological reflection and mysticism, for instance, because theological reflection shares the resources of human rationality and, as such, has more in common with scientific reflection than mysticism has.

Reflecting on this realism, Van Huyssteen (1997:258) points out that Rescher makes a case for two inseparable and indispensable components of realism:

1. The existential and ontological component; and
2. The cognitive and epistemic component.

The first maintains that there is a mind-independent physical world and the second maintains that one can secure information about this mind-independent physical world (1997:258). Interestingly, Rescher argues that the ontological component:

...is not a matter of discovery or the result of an argument, but rather a functional or pragmatic presupposition for our inquiries (Van Huyssteen 1997:259).

Van Huyssteen explains:

Realism in this mode does not represent a discovered fact or a justified position, but rather the methodological presupposition of our praxis of inquiry (1997:259).

Therefore, according to Van Huyssteen, scientific reflection is not more real or rational than theological reflection. What makes science unique, however, is its history of success in coping with the problems of empirical reality (1997:264). Van Huyssteen explains:

In theology, as critical reflection on religion and religious experience, rationality implies the ability to give an account, to provide a rationale for the way one thinks, chooses, acts, and believes. Here too theory-acceptance has a distinct cognitive dimension. When we ask, however, what besides belief is involved in theory-acceptance, the pragmatic and evaluative dimensions of theory-acceptance are revealed. Here the rationality of science and of theology very much overlap, in that both exhibit what intellectual practice would be like for those who adopt a specific model of thought (1997:259-260).

As such, Van Huyssteen suggests that there is no justification for an easy and oversimplified demarcation of science and theology (1997:264). In fact, Van Huyssteen argues that there are enough similarities between these research traditions to encourage and sustain interdisciplinary research in theology and science. The scientist and the theologian share:

1. the crucial role of being rational agents, and of having to make the best possible judgements within a specific context, and within and for specific community;
2. the epistemological fallibilism implied by contextual decision making;
3. the experiential and interpretative dimension of all our knowledge;
4. the fact, therefore, that neither science nor theology can ever have demonstrably certain foundations (1997:264).

Interdisciplinary conversation and reflection in theology and the science are not a battleground between irrational and rational beliefs, but rather entail rational agents

within in diverse research traditions sharing their insights into the manifold domains of reality, drawing from the shared resources of human rationality.

Chapter Six – Postfoundationalist Interdisciplinary Reflection

This chapter intends to clarify the understanding of the aspects involved in a postfoundationalist facilitation of interdisciplinary reflection. While this approach could be used in any interdisciplinary conversation, this chapter intends to assist the theologian specifically. In order to clarify each aspect, Van Huyssteen's interdisciplinary reflection in his Gifford Lectures will be discussed and used as an example.

It is important to note that, in his Gifford Lectures, Van Huyssteen pieces together three arguments. One of the arguments concerns the abstract nature of his postfoundationalist approach. By drawing on evolutionary epistemology he grounds his postfoundationalist approach by showing its rootedness in the biological evolution of the human mind and rationality.

The second argument is focused on the re-interpretation of the *imago Dei* metaphor in Christian theology with the evolutionary development of *Homo sapiens* in mind.

The last argument, beautifully woven into the main argument, is focused on the necessity for interdisciplinary conversation. Here, once again, Van Huyssteen argues for his postfoundationalist approach drawing not only on the philosophy of science, but on disciplines such as evolutionary epistemology and paleoanthropology.

In other words, while moulding a renewed interpretation of the *imago Dei*, Van Huyssteen illuminates the *shared resources of human rationality* and grounds this notion of human rationality in the evolution of *Homo sapiens*. Thus, throughout his work on the *imago Dei*, Van Huyssteen substantiates what he has been arguing for regarding human rationality and its workings. Therefore, his Gifford Lectures not only argue for a more appropriate understanding of the *imago Dei* metaphor, but serve as a validation of his conviction that theology and the sciences are significant in reflecting on what it means to be human.

This chapter does not focus on these arguments, but rather on Van Huyssteen's postfoundationalist facilitation of this interdisciplinary conversation and reflection. It

does so by identifying and distilling four aspects important to the postfoundationalist in facilitating interdisciplinary reflection.

While postfoundationalist facilitation does not follow fixed rules in interdisciplinary reflection, it is possible to distinguish between four aspects. These aspects are not mutually exclusive and should not be understood as a step-by-step methodology. Still, the conversation itself does materialise in four aspects. These are:

- A. Identification of transversal points;
- B. Identification of reflective partners;
- C. Discussion of the arguments in search of the best available account of the transversal issue;
- D. Taking back *what was learned* to the respective research strategies.

These four aspects are equal in importance and *responsible judgment* is needed throughout the process. Van Huyssteen's Gifford Lectures will serve as an example to clarify each aspect.

A. Identification of transversal points

According to Van Huyssteen, trying to devise a way of integrating whole disciplines such as theology and science is a futile exercise (2006:40). Therefore he proposes that transversal points or *shared variables* be the focus of interdisciplinary reflection.

Furthermore, it is imperative that specific theologians, practising a specific kind of theology in a specific theological tradition enter into interdisciplinary conversation with specific scientists, working within specified sciences on clearly defined, shared issues (2006:4-5). This should be understood as a move from *the contextual* to *the transversal* (2006:40). This means that interdisciplinary reflection starts within one's own discipline. The theologian cannot attempt interdisciplinary reflection before a specific

transversal issue has been identified. Thus, the first aspect is to identify a shared issue¹⁹⁰ that provokes multidimensional/multidisciplinary explanation.¹⁹¹

Here Van Huyssteen identifies human uniqueness as a transversal point in theology and science. In theological reflection the metaphor of the *imago Dei* intends to illuminate the special place bestowed upon human beings in Creation. As such, it is a way of understanding humans in this world and the role they have to fulfil. However, this metaphor has been interpreted in a variety of ways for millennia and seems to be subject to contextual factors and cultural evolution (2006:159).

In the sciences, especially evolutionary biology, the question of *human uniqueness* also illuminates a way of understanding humans in this world. Interestingly, while keeping to an evolutionary explanation after Charles Darwin, this issue also seems to be subject to contextual factors and cultural evolution (2006:106).

Apart from offering different explanations about the origin of human beings, *human uniqueness* in science and the *imago Dei* in theology do not necessarily influence each other directly. However, the implications of these two issues do seem to be far-reaching and conducive to conflict between theological and scientific reflection. Still, it would be imprudent to juxtapose these two issues, creating a *choice* for either religion or science, because, on closer inspection, both these issues change in time and context. Yet they do have huge implications for understanding humans within this world.

Human uniqueness in science and the *imago Dei* in theology are a shared point of interest and, therefore, a transversal point requiring interdisciplinary reflection. Understanding humans within this world is a transversal point – a multidisciplinary issue. The disciplines engaged with in this reflection do not necessarily reflect on the same dimensions of this transversal point, but illuminate different and indispensable

¹⁹⁰ Van Huyssteen makes a very interesting suggestion here: “Because of the transversal rationality of interdisciplinary discourse, not only shared problems and common concerns, but also criteria from other reasoning strategies can indeed be appropriated between disciplines as diverse as theology and the sciences” (2006b:75).

¹⁹¹ Van Huyssteen notes that Richard Osmer distinguishes between four levels of cross-disciplinary thinking: interdisciplinary, intradisciplinary, metadisciplinary and multidisciplinary. It is Osmer’s multidisciplinary reflection that Van Huyssteen refers to as transversal points. This kind of reflection is: “...based on the assumption that various disciplines are needed to comprehend complex phenomena” (Van Huyssteen 2006:4; footnote 3).

dimensions or layers of this issue and transversality makes it possible to locate the places where these *equations*/arguments intersect with each other.

Van Huyssteen, after identifying a transversal issue, maps out the nuances of this transversal issue he means to reflect on. While he intends to reflect on human uniqueness in science and theology, the issue of rationality also plays a part. He does not only want to know how this issue is understood in either reasoning strategy, but also asks about the validity of each reasoning strategy's understanding of human uniqueness. Thus, the rationality of each discipline pertaining to this specific issue is also a point of discussion. Van Huyssteen therefore takes up two questions:

1. How is human uniqueness understood in theology and the sciences?
2. What is the validity of such interpretations within each reflective domain?

This implies that the rationality of each interpretation, pertaining to human uniqueness within the respective disciplines, needs to be evaluated as well. Consequently, Van Huyssteen asks if interpretations of human uniqueness in theology are rational and, if so, to what extent they contribute to the search for meaning in this world (2006:43).

Furthermore, if the metaphor of the *imago Dei* is rational, how do scientific interpretations of human uniqueness enrich this metaphor in contemporary culture (Van Huyssteen 2006:68)? With this clearly defined transversal issue, Van Huyssteen turns to the sciences in search of rational agents that could help reflect on it.

B. Identification of reflective partners

This phase is arguably the most difficult one, seeing that whomever one engages in conversation will ultimately help to shape the outcome of the interdisciplinary reflection. Not only does one need to identify the necessary disciplines regarding the transversal issue, but one has to identify rational agents who reflect appropriately within these research strategies. The reason for identifying rational agents within a research strategy is to ensure that one engages with the discipline appropriately. The rational agent will help to illuminate the nuances within the discipline, as well as mapping the

focus and boundaries of the respective tradition. Important here is that one should respect the boundaries of one's own tradition and not overstep the boundaries of other domains of reflection. Therefore, identifying appropriate rational agents within the disciplines one intends to engage with is of the utmost importance.

In identifying these rational agents in conversation, there are a few questions that guide the search. The first question that should be asked is:

1. Where does the rational agent's reflection intersect with the issue?

In other words: What is his/her transversal position? Van Huyssteen, for example, identifies evolutionary epistemologists who reflect on the cognitive evolution of *Homo sapiens*. Therefore, explanations of human uniqueness within this research strategy will concentrate on human cognition. It is this conversation that leads him to engage paleoanthropologists as conversational partners. Paleoanthropologists reflect on the evolutionary origin and development of *Homo sapiens*. Human uniqueness in this research strategy will have physiological as well as psychological dimensions. Thus, explaining what it means to be human in this research strategy will address physical as well as behavioural features.

In theology the metaphor of the *imago Dei* tries to place humanity, as created in the image of God, in a particular relationship with God and creation. Interpretations of this metaphor are numerous and diverse, but they almost always offer a way of understanding humanity in creation – be it a plea for responsibility or for a place of honour.

The second question that needs to be asked is:

2. In what way does the conversational partner approach this transversal issue?

In the case of human uniqueness the evolutionary epistemologists and paleoanthropologists approach this issue from an evolutionary stance. However, evolutionary epistemologists do touch on philosophy.

Theologians, on the other hand, tend to draw from philosophy, Scripture and religious tradition – thus, approaching this issue from a religious stance. It is important to note that all these conversational partners are embedded in a context, meaning that their arguments and explanations are shaped by extra-disciplinary factors as well. Nonetheless, it is safe to say that paleoanthropologists and evolutionary epistemologists argue for human uniqueness using the theory of evolution as a base, while theologians use Scripture and religious tradition as starting points.

The third and very important question here is:

3. To what extent do the arguments of the rational agents keep true to the cores and boundaries of their respective strategies?

Van Huyssteen explains:

...Charles Darwin's conception of human identity and human nature, with its very specific focus on the evolution of human cognition, still functions as the canonical core of the ongoing discourse on human evolution (2006:106-107).

Taking this to be an appropriate assumption, Van Huyssteen argues that contemporary evolutionary epistemology reflects on the epistemic implications of this Darwinian view on human cognition (2006:107). Furthermore, evolutionary epistemologists reveal human cognition to be embodied and serves as a mediator between biology and culture. Human cognition is therefore rooted in biology, but also transcends it through culture. From here, Van Huyssteen argues that the insights of paleoanthropologists become important, offering a context/milieu in which the embodied human mind transcends its biological roots.

Regarding the use of the *imago Dei* by theologians, Van Huyssteen evaluates a wide spectrum of interpretations by examining the methodologies and use of Scripture by these theologians. In this way Van Huyssteen weeds out interpretations that seem to stray into abstractness and unintelligibility. Throughout this process he identifies prominent and crucial themes that shape the metaphor of the *imago Dei* in theological

reflection. He is thus left with a clearer understanding of what the metaphor of the *imago Dei* intends to refer to. In other words:

1. What is the intention of the metaphor; and
2. Would this to which it refers, be incoherent with how evolutionary epistemologists and paleoanthropologists define human uniqueness?

This makes it possible to enter interdisciplinary reflection and discuss the best available account of human uniqueness in evolutionary epistemology, paleoanthropology and theology.

C. Discussion of the arguments in search of the best available account of the transversal issue

What occurs in this phase, quite simply, is a discussion of the reasons behind the beliefs and convictions argued for by the conversational partners. This makes it possible to evaluate the level of consensus and dissensus in the transversal space and illuminate specific points where the arguments depart from one another. Interestingly, points of contact between different arguments also rise to the surface.

Now, the conversation materialises not as a battle between arguments, but rather as a discussion of various points of agreement and disagreement on particular aspects of the arguments offered. The conversation does not need to end in total consensus, nor is this the intention of such a conversation. The intention of such a conversation is to allow the conversational partners to discuss particular aspects of each another's arguments. Hopefully, as a consequence of this conversation, certain aspects that were previously thought to be in conflict, might be shown to be complementary to one another. To put this more optimistically, the conversational partners can hopefully learn from one another and return to their respective disciplines with a revised argument related to the transversal issue raised for discussion.

Returning to Van Huyssteen's facilitation of interdisciplinary reflection in his Gifford Lectures, it becomes clear that the arguments pertaining to human uniqueness in

evolutionary epistemology, paleoanthropology and theology have numerous points of agreement and disagreement. Navigating his way through these entangled lines of reasoning, Van Huyssteen (2006:190) is able to offer a clear account of human uniqueness as developed by the paleoanthropologist Ian Tattersall:¹⁹²

Homo sapiens is not simply an *improved version* of its ancestors, but is in fact a new thing altogether, qualitatively distinct from them in highly significant if limited respects. What has been called the distinctly *human capacity* is therefore not at all just a further development of earlier trends in our lineage, but is in fact a huge leap away from our ancestors, if not genetically, then at least culturally.

Van Huyssteen (2006:191) explains that Tattersall refers here to the human ability of introspection and self-awareness which have come to be called *consciousness*. Van Huyssteen comes to conclude that:

Transversal lines of argument between evolutionary epistemology and paleoanthropology converge and intersect on the fact that the very first modern humans were distinct in the evolution of their symbolic, cognitive fluid minds that directly led to symbolic, creative behaviour (2006:212).

Van Huyssteen explains that this implies human uniqueness:

...emerged as a highly contextualized and physically embodied notion (2006:212).

He adds:

Paleoanthropologists, like evolutionary epistemologists, have linked this emergence of consciousness and symbolic behaviour directly to the emergence of religious awareness (2006:212).

¹⁹² Ian Tattersall is a paleoanthropologist and a curator at the American Museum of Natural History. He is working with The Templeton Foundation.

Van Huyssteen (2006:214-215) states that Tattersall's work shows that:

...*the potential arose in the mind* to undertake science, create art, and discover the need for religious belief, even though there were no specific selective pressures for such abstract abilities at any point during the past.

According to Van Huyssteen (2006:214), Steven Mithen, also argues that:

Science, art, and religion are all deeply embedded in the cognitive fluidity of the embodied human mind/brain.

Thus, Van Huyssteen concludes that human behaviour cannot be understood apart from the religious dimension, because:

...since the beginning of the emergence of *Homo sapiens*, the evolution of those characteristics that made humans unique from even their closest sister species, i.e., characteristics like consciousness, language, symbolic minds and symbolic behavior, is directly related to religious awareness and religious behavior (2006:213).¹⁹³

Van Huyssteen (2006:267) also observes that Terrence Deacon, a scientist, understands the capacity for spiritual experience as:

...an emergent consequence of the symbolic transfiguration of human cognition and emotions.

All this, according to Van Huyssteen (2006:268), indicates what Niels Gregersen¹⁹⁴ calls the:

¹⁹³ Mithen (1996:177:178) comments: "...we can be confident that religious ideologies as complex as those of modern hunter-gatherers came into existence at the time of the Middle/Upper Palaeolithic transition and have remained with us ever since. This appears to be another consequence of the cognitive fluidity that arose in the human mind, which resulted in art, new technology, and a transformation in the exploitation of the natural world and the means of social interaction."

¹⁹⁴ Niels Henrik Gregersen is a professor of Systematic Theology at the University of Copenhagen. Within the field of science and religion, he specializes in the philosophy of evolutionary biology and the sciences of complexity.

...naturalness of religious imagination: the neurological disposition or capacity for religious awareness and religious experience.

Despite this, Van Huyssteen makes it clear that this should not be understood as an argument for the truth of any religion, nor for the existence of God (2006:213).¹⁹⁵ What the theologian should take from this is that:

...the most responsible Christian theological perspective on human uniqueness requires a distinct move away from esoteric and overly abstract notions of human uniqueness and a return to embodied notions of humanness where our embodied imagination, sexuality, and moral awareness are directly linked to the fully embodied self-transcendence of believers who are in a relationship with God (2006:267).

Furthermore, the sciences, here specifically biology and neurosciences, cannot explain religious experience adequately. Van Huyssteen adds:

Only the religious person, experiencing his/her faith within a highly specific cultural context, can interpret or identify an experience as religious, and that as such qualifies an experience as a religious experience (2006:269).

Therefore, the methodology of religion remains internal and cannot be appropriately explained by science (2006:269). Still, the internal methodology of religion should be open for discussion by theologians, philosophers of science and scientists. This, as shown above, should be done transversally and not haphazardly by agents lacking the necessary expertise regarding the issue.

This leads to the fourth aspect within a postfoundational facilitation of interdisciplinary reflection. Van Huyssteen states:

¹⁹⁵ Interestingly, this statement is similar to a much earlier statement by Pannenberg (1988:313-314): "...it is only in the form of religion and of *one* religion among other that the divine reality can be perceived by human beings. Religion, then, is the primary human form of perceiving the reality of God. As such, the issue of religion also belongs to anthropology. This is in itself a witness to the reality of God, the creator of everything; to argue that the human being is by nature the religious animal is certainly not to demonstrate the reality of God, but is indispensable in any affirmation of that reality...The truth of a particular religious belief is, of course, another matter."

...an interdisciplinary theologian should ideally make two moves: take the interdisciplinary results from specific multidisciplinary conversation back into his or her intradisciplinary context to enrich current research in theology; and at the same time keep the interdisciplinary conversation going with scientists who are interested in the broader religious, or specific theological, perspectives that theology might bring to the table (2006:270).

D. Taking back *what was learned* to the respective research strategies

This is a move back from the *transversal* to the *contextual*. Van Huyssteen explains:

...interdisciplinary dialogue always points us back again to the broader boundaries of our own disciplines where disciplinary lines of argument necessarily diverge again and move back to *intradisciplinary* contexts, carrying with them the rich interdisciplinary results of the multidisciplinary conversation (2006a:663).

It would be improper to presume how other conversational partners should take back *what was learned* to their respective disciplines. One should respect the rationality of each discipline and remain within the boundaries of one's own research strategy. This is exactly what Van Huyssteen does. He turns to the theological discussion on the *imago Dei* and communicates what he has learned in this interdisciplinary reflection. One would hope that the participating scientists would at least acknowledge that the religious dimension of being human is indispensable and worth reflecting on. Here evolutionary biologists such as Richard Dawkins come to mind. Van Huyssteen expresses this well:

The scientist may be enriched by learning how these powerful symbolic and religious propensities cannot be discussed generically for all religions, but come alive only in the living faith of specific religious systems where they are augmented in ways that scientific methodology cannot anticipate...the nuanced, sympathetic scientist would want to acknowledge that there is more to embodied

human uniqueness than paleoanthropology or neuroscience could explain (2006:322).

After this Van Huyssteen turns to fellow theologians reflecting on human uniqueness. He engages theologians such as Edward Farley, Gordon Kaufman, Christian Smith¹⁹⁶ and Abraham Heschel, who reflect on the metaphor of the *imago Dei* by incorporating notions of embodiment (2006:276). He also engages philosophers such as Alasdair MacIntyre.¹⁹⁷ Moreover, Van Huyssteen identifies the theological anthropologies of Robert Jenson,¹⁹⁸ Philip Hefner,¹⁹⁹ Phyllis Bird and Michael Welker²⁰⁰ as including a strong emphasis on embodied personhood. According to Van Huyssteen, their work could serve as models of appropriate theological anthropologies because they include a strong notion of embodiment.²⁰¹ Thus, to be human, Van Huyssteen has learned, means to have an *embodied consciousness*²⁰² and from this perspective he engages the above theologians in intradisciplinary conversation (2006:276).

¹⁹⁶ Christian Smith is an American sociologist at the University of Notre Dame. Smith focuses on religion in modernity, adolescents and emerging adults, sociological theory, American evangelicalism, and culture.

¹⁹⁷ Alasdair Chalmers MacIntyre is a British philosopher interested in moral and political philosophy, but known also for his work in the history of philosophy and theology. He is an Emeritus Professor of Philosophy at the University of Notre Dame.

¹⁹⁸ Robert W. Jenson is an American Lutheran and ecumenical theologian.

¹⁹⁹ Philip Hefner is a professor emeritus of systematic theology at the Lutheran School of Theology at Chicago. He is an ordained minister of the Evangelical Lutheran Church.

²⁰⁰ Michael Welker is a German Protestant theologian and professor of Systematic Theology at the University of Heidelberg. Biblical Theology and *general theory* are the main focal points of his research. He reached a wider audience with publications about the Spirit of God, creation (especially in dialogue with the sciences), the role of the church in pluralistic societies, resurrection and the Protestant view of the Lord's Supper. In his most recent publication *The Theology and Science Dialogue: What Can theology Contribute* (2012), Welker argues that the anthropology of Paul in the New Testament offers the possibility for multidimensional reflection. Welker (2012:40) writes: "I should like to show that Paul's anthropology, influential in the history of theology and philosophical thought to the highest degree, can offer a clear, if complex microanthropological approach. This approach is compatible with macroanthropological constellations and is open to dialogues with the sciences in that it centers not only on the natural and bodily dimensions of the human being, but also clearly favors *rational approaches* even to the deepest dimensions of human spirituality."

²⁰¹ Van Huyssteen (2005:122) comments: "In Phyllis Bird and Michael Welker's writings there is a very conscious move away from theological abstraction towards seeing the *imago Dei* in a highly contextualized, embodied sense that respects the sexual differentiation between men and women, even as they exercise responsible care and multiply and spread over the earth".

²⁰² In a later article, "When We Were Persons? Why Hominid Evolution Holds the Key to Embodied Personhood" (2010), reflecting on Charles Darwin's work and person, Van Huyssteen (2010b:329-330) writes: "It is in the *embodied* self, then, that we will find the key to relational communication, and thus for successfully overcoming the challenge towards a nuanced, holistic notion of self, and for rediscovering that ever since prehistoric times religious behavior also has been a definitive part of human behavior".

In response to many theological interpretations of the *imago Dei*, Van Huyssteen remarks, human uniqueness should not be defined as an abstract, intellectual or spiritual capacity, because it is their existence as embodied minds that makes humans uniquely human. According to Van Huyssteen (2006:320), Farley and MacIntyre, argue that:

...whatever our degree of difference from the other animals may be, it is *our evolutionary developed bodies* that are the bearers of human uniqueness, and it is this embodied existence that confronts us with the realities of vulnerability and affliction.

Heschel, Van Huyssteen points out (2006:320), agrees that the image of God is found in both *body and soul*, and expresses this point even more emphatically:

...the image of God is not found *in* humans, but *is* the human, and for this reason *imago Dei* can be read only as *imitation Dei*: to be created in God's image means we should act like God, and so attain holiness by caring for others and for the world.

Furthermore, Van Huyssteen underlines the view that the theological notion of the *imago Dei* could now be understood as *emerging from nature itself* (2006:322). He elaborates on this:

I would conclude that interdisciplinary reasoning has here negotiated a shared, transversal space where theologians and scientists can explore a wide reflective equilibrium of agreement on what embodied existence means, and why it may have different but equally important consequences for different disciplines (2006:322).

Remaining true to the second facet of this aspect, Van Huyssteen keeps the conversation open – interdisciplinarily and intradisciplinarily. This can be seen in a series of articles in *Zygon* 43(2) (June 2008), in which Van Huyssteen responds to evaluations of and critique on *Alone in the World?*

In “Uniqueness in Context” (2008) Nancy R. Howell questions whether Van Huyssteen’s interpretation of human uniqueness is appropriate. She refers to the differences in Eastern and Western science, where Eastern science and religions does not find it difficult to comprehend the relationship between human and animal (Howell 2008:494). Western science and religion (mainly Christian traditions), on the other hand, are tied up in finding the differences between human and animal. Therefore, Van Huyssteen’s approach and research is confined to Western culture.

In his response to Howell, “Primates, Hominids, and Humans — From Species Specificity to Human Uniqueness? A Response to Barbara J. King, Gregory R. Peterson, Wesley J. Wildman, and Nancy R. Howell” (2008), Van Huyssteen shows his appreciation of Howell’s interpretation of his work. He remarks that Howell understands that his work starts contextually (2008a:522). Van Huyssteen explains his aim in *Alone in the World?* is to illuminate the metaphor of the *imago Dei* and human uniqueness in Western culture. As such, this is not a point of disagreement between him and Howell, but rather a difference of focus in their work. Yet he notes that his understanding of transversality justifies Howell’s question as a point of further research (2008a:523). His aim in *Alone in the World?*, however, is specifically focused on the Judeo-Christian tradition and this should not be interpreted as a disregard of Eastern science and religions. *Alone in the World?* is merely a focused discussion within Western culture.

In “Uniqueness, the Image of God, and the Problem of Method: Engaging Van Huyssteen” (2008), Gregory R. Peterson’s main critique is threefold. First, regarding method, Peterson takes Van Huyssteen’s notion of transversality to imply a high degree of disciplinary fragmentation (Peterson 2008:468). Peterson suggests that while this might be true, Van Huyssteen does not argue for this stance sufficiently. Secondly, Peterson critiques Van Huyssteen’s endorsement of evolutionary epistemology, seeing that this discipline takes the theory of evolution to be true, which Peterson interprets as a foundationalist stance (2008:469). Finally, Peterson notes that Van Huyssteen speaks too little of God and God’s action in creation (2008:470). This leads Peterson to ask whether Van Huyssteen engages this conversation with a deistic notion of God.

Responding to this, Van Huyssteen makes it clear that he does not imply disciplinary fragmentation with his notion of transversality (2008a:512). Van Huyssteen explains that transversality is an epistemic value meant to replace modernism's *universality* and he argues thoroughly for this in *The Shaping of Rationality* (1999).

Furthermore, Van Huyssteen fails to see how endorsing the truth of the theory of evolution is taking a foundationalist stance (Van Huyssteen 2008a:513). This theory might be used in a foundationalist manner, but the truth of the theory itself is not foundationalist. On Peterson's last point of critique Van Huyssteen states that the intention of *Alone in the World?* is not to deal with notions of God (2008a:515). Van Huyssteen acknowledges that such a conversation does subsequently flow from this discussion, but one can do only so much in one book. Setting that aside, Van Huyssteen clarifies that he does not endorse a deistic notion of God. This can be seen throughout his career and all that he has written. Van Huyssteen, in his personal capacity, believes that God is creating through an evolutionary process,²⁰³ but this was not the focus of *Alone in the World?*

In "Reflections on Wentzel van Huyssteen's *Alone in the World? - Primates and Religion: A Biological Anthropologist's response to J. Wentzel van Huyssteen's Alone in the World?*", Barbara J. King disagrees with Van Huyssteen that there is only one line that leads to self-awareness and consciousness – conscious beings (King 2008:454). She refers to research on particular ape species that have shown them to possess symbolic minds as well. *Homo sapiens* is therefore not unique in possessing a symbolic mind, because consciousness can be seen in apes to. Furthermore, she asserts that:

...Though religiousness – the human religious imagination – is unique to our species, it emerged from deep evolutionary roots. It is not *determined* by these roots but rather *enabled* by them. An understanding of human religious behavior today is strengthened by an understanding of its origins and of the idea that those origins lay in both biology and culture (2008:454).

²⁰³ This is one of the few times that Van Huyssteen reveals some aspects of his own personal commitment.

Van Huyssteen, excited that a biological anthropologist engages with his work in such detail, agrees with King that human imagination is not determined by, but enabled by its evolutionary roots (Huyssteen 2008a:511). He explains that King has unfortunately misunderstood what he meant by stating:

Homo sapiens is not simply an *improved version* of its ancestors, but is in fact a new thing altogether, qualitatively distinct from them in highly significant if limited respects. What has been called the distinctly *human capacity* is therefore not at all just a further development of earlier trends in our lineage, but is in fact a huge leap away from our ancestors, if not genetically, then at least culturally (2006:190).

With this Van Huyssteen does not mean to argue that consciousness is distinctly human, but that the specific consciousness humans display is uniquely human – if consciousness is embodied, then human consciousness is distinguishable from other forms of consciousness (2008a:511). Even the consciousness that apes display has to be distinct from human consciousness, because it is an embodied consciousness. Therefore, Van Huyssteen is not pointing to the difference between animals and humans, but rather argues *that which makes us human* is directly connected to human religious awareness, irrespective of the consciousness displayed by other animals. Therefore, it would be more precise to put it as such:²⁰⁴

...since the very beginning of the emergence of *Homo sapiens*, the evolution of those characteristics that made humans unique from even their closest sister species, i.e., characteristics like [*human*] consciousness, [*human*] language, [*human*] symbolic minds and symbolic behaviour, is directly related to [*human*] religious awareness and religious behaviour (2006:213).

Therefore, Van Huyssteen clarifies his point that from sexuality, proto-morality, proto-language and proto-spirituality come human sexuality, morality, language and spirituality – variations uniquely human. As such, Van Huyssteen (2008a:511) agrees with King that:

²⁰⁴ I have inserted the words in brackets to clarify what Van Huyssteen means here.

...we cannot understand our religious disposition today without understanding its deepest roots in prehistory.

This is what Van Huyssteen argues for in Chapters Two, Three and Four of *Alone in the World?*

In “Hand in Glove: Evaluating the Fit between Method and Theology in Van Huyssteen’s Interpretation of Human Uniqueness” (2008) Wesley J. Wildman²⁰⁵ also has three main concerns. Firstly, Wildman suggests that Van Huyssteen is too quick in labelling scientific arguments as *reductionist*, thereby brushing them off too easily (Wildman 2008:484). Secondly, Wildman interprets Van Huyssteen’s notion of embodiment to be *restrained*, most probably because of Van Huyssteen’s Reformed background (2008:478). Lastly, Wildman takes issue with Van Huyssteen’s transversal approach. Wildman claims (2008:483):

The transversal method offers little resistance to oversimplifying the theological implications of embodied sociality because the method is built around flashes of transversal insight rather than systematic evaluation of all relevant theoretical perspectives.

Furthermore, according to Wildman (2008:484), Van Huyssteen is too quick to employ the notion of transversality to protect reflective domains. Wildman explains:

Van Huyssteen’s desire to honour the substantial autonomy of both science and religion is commendable, and every science-theology dialogue needs to absorb this lesson. But the transversal method does this in a way that is more artistic than philosophically rigorous, encouraging the exploration of favoured transversal connections while allowing unfavourable ones to pass by unexamined or muted in their effects (2008:489).

²⁰⁵ Wesley J. Wildman’s research interests range from comparative and constructive theology to a variety of philosophical and ethical topics within the domain of science and religion. His contribution to Van Huyssteen’s festschrift is titled “Rational Theory Building: Beyond Modern Enthusiasm and Postmodern Refusal (A Pragmatist Philosophical Offering)” (2006).

In his reply Van Huyssteen acknowledges that he argues strongly against scientific reductionism, but points out that he does the same with religious and theological imperialism (2008a:516). He interprets both to be intellectual forms of *parochial arrogance*.

Secondly, Van Huyssteen (2008a:517-518) responds to Wildman's claim that his notion of embodiment is too *restrained* by stating the contrary:

...I made the theological argument that any revisioned notion of the *imago Dei* should be so radically inclusive and embodied as to include those humans who are not in meaningful relationships, those who are in meaningful relationships regardless of their sexual orientation or sexual identity, those who are unable to be in normal relationships, those who live in vegetative states, those who are mentally or physically handicapped, sociopathic, or otherwise prevented from functioning in typically human ways.

Furthermore, by deliberately accepting:

...the importance of altered states of consciousness I stressed this specific kind of continuity with our prehistoric ancestors precisely because of our shared embodiment (2008a:518).

Regarding Wildman's critique of Van Huyssteen's transversal approach, Van Huyssteen explains:

Transversal reasoning...is a pragmatic approach to the performative praxis of reason as we venture down the risky road of interdisciplinary dialogue. As such, it is not about arbitrarily opening ourselves up or closing ourselves off to other viewpoints. It is about discovering what it might mean to share an epistemic space that allows for the kind of interdisciplinary critical evaluation that includes a critical self-evaluation and optimal understanding (2008a:518).

Van Huyssteen (2008a:520) also refers to Mikael Stenmark's warning:

...against religious and scientific expansionism as the illegitimate crossing of disciplinary boundaries on the basis of one favoured, foundational discipline only.

This is why Van Huyssteen is restrained in his transversal engagements so as not to overestimate and overstep theological boundaries in this interdisciplinary reflection. Additionally, Van Huyssteen explains that it is exactly the notion of transversality that allows for a non-hierarchical asymmetry between various disciplines (2008a:521). He also makes it clear that there is an important difference between *the naturalness of religion* and *the credibility of the cognitive claims of religion* (2008a:522). The naturalness of religion does not lend credibility to the cognitive claims of religion.

On closer inspection, two issues stand out prominently in Van Huyssteen's response to all of the above – the first concerns transversal points and the second pertains to the structure of interdisciplinary reflection.

Throughout his work on interdisciplinary conversation and research Van Huyssteen stresses the importance of focused and specified transversal points. Although it is of the utmost importance to identify a specific transversal point, it is just as important to clarify what aspects of such a transversal point are to be discussed and reflected on. A transversal point does not connect disciplines completely, but rather connects particular aspects of arguments within disciplines. The interdisciplinary conversation is therefore not a discussion of whole theories, but rather a discussion of particular, specified aspects of theories that connect on the level of some dimensions, but not all.

In *Alone in the World?* Van Huyssteen shows tremendous discipline and self-control in discussing the specified aspects of the identified transversal point, namely *human uniqueness* in theology and science. One should be cautious not to drift into arguments about aspects of theories not thoroughly investigated and argued for beforehand. This is not only to protect disciplinary domains, but to gain and retain the trust of one's conversational partners. Interdisciplinary reflection, in Van Huyssteen's view, should not be a *tour de force* that leaves other conversational partners feeling exploited. The

object is to keep such a conversation open and inviting. Therefore, one should keep to the specific *terms* agreed upon beforehand. This can be seen explicitly in Van Huyssteen's response to Wildman. Van Huyssteen keeps to the integrity of his argument and does not venture into domains which are supplementary to this. He acknowledges that particular auxiliary aspects of his argument do warrant further investigation; however, this should be done within subsequent interdisciplinary reflection.

Related to this is the issue concerning the momentary or limited nature of the interdisciplinary conversation. Van Huyssteen makes it abundantly clear that the interdisciplinary conversation is meant to be just that. There is no intention of constructing an *interdisciplinary discipline* or a *multidisciplinary discipline*. This would not only lead to a fragmented discipline, but to a discipline without an identity, tradition or context. Such a discipline would not do justice to the *reflective domains involved* and be incapable of absorbing the multiple foci intended. It would lead to a cluttered equation and ultimately to a renewed search for *a theory of everything*. Thus, the aim of Van Huyssteen's postfoundationalist facilitation is to create space for interdisciplinary conversation as needed, but not to create a new multidisciplinary discipline as such. This is really important to Van Huyssteen and the reason why he draws so heavily on the notion of transversality. There is no intention of constructing an abstract, philosophical discipline which is meaningful to a privileged few. Research strategies and traditions should be upheld. Important though, a postfoundationalist notion of rationality makes it possible to uphold these research strategies within a non-hierarchical relationship, as well as empowering these research strategies to converse on shared variables.

As such, Van Huyssteen's postfoundationalist facilitation of interdisciplinary conversation and reflection creates transversal spaces in which specific theologians, practising a specific kind of theology within a specific tradition, can enter into conversation with specific scientists, within specified disciplines and contexts, on specific aspects of identified transversal points. Reflective domains are respected and assimilation of these domains is not tolerated. Postfoundationalist facilitation, therefore, intends to be conducive to constructive conversation between disciplines, for

example, theology and paleoanthropology, by employing epistemic values such as transversality, contextuality and responsible judgement. A postfoundationalist notion of rationality and interdisciplinary conversation truly takes on:

...the responsibility to pursue clarity, intelligibility and optimal understanding as ways to cope with ourselves and our world (Van Huyssteen 1999:2).

Conclusion: A Public Theologian

This dissertation describes J. Wentzel van Huyssteen as *a public theologian*. This description highlights three important notions embedded in Van Huyssteen's postfoundationalist theology: the public nature of theological reflection; the theologian as rational agent; and the necessity of diversity in the public engagements of theologians.

Van Huyssteen writes:

...I have argued for a revisioning of theology's public voice by taking on the challenge to locate theological reflection within the context of interdisciplinary reflection...the seemingly remote, isolated epistemologies of reasoning strategies as different as theology and the sciences can now be recognized as integral parts of webs of theories about the world and ourselves...religious and theological reflection can now be recognized as equal partners in a democratic, interdisciplinary conversation...theological reflection will share in interdisciplinary standards of rationality which, although always socially and contextually shaped, will not be hopelessly culture and context bound... (1999:285).

In other words, Van Huyssteen is described as *a public theologian* for several reasons. The first is, because he: concerns himself with the nature of theological reflection; argues that theological reflection, by the nature of its focus, is essentially interdisciplinary; developed a postfoundationalist notion of rationality which legitimately places theology and appropriately guides theologians within broader interdisciplinary conversations;²⁰⁶ illuminates, through interdisciplinary conversation,

²⁰⁶ George Newlands, in his contribution "Public Theology in Postfoundational Tradition" (2006) to Van Huyssteen's festschrift *The Evolution of Rationality* (2006), argues that Van Huyssteen's postfoundationalist facilitation of interdisciplinarity has relevance for public theology. Newlands (Shults 2006:394) identifies three basic strands of a postfoundational public theology: a reasoned approach to open and engaged dialogue; a fresh hermeneutical retrieval of the classical Christian tradition; and commitment to the expression of Christian commitment in rational engagement with major issues in social ethics. In his contribution "Realism, Religion and the Public Sphere:

the indispensability of theological reflection by revealing the naturalness of religious experience as a natural result of what distinguishes *Homo sapiens* – human rationality; addresses shared concerns within the wider academic community.

For Van Huyssteen the public nature of theological reflection is only revealed in its interdisciplinarity and it can therefore only be practised appropriately through interdisciplinary conversation.

Although this was not his original academic intention, with hindsight it is clear that Van Huyssteen has developed an appropriate methodology for a public theologian. In “Interdisciplinary Theology as Public Theology” (2011) Van Huyssteen describes his academic project as a search for the public voice of theology. He explains:

I have always, first in my earlier work on methodology, then later in my work on epistemology, rationality and hermeneutics, and finally in my more recent work in theology and science, and theological anthropology, seen my own work as fundamentally defined by its interdisciplinary nature: a theology on a journey...to find its public voice. In this sense I have argued quite specifically for a public theology: a theology that can and should claim the right to a democratic presence in the interdisciplinary, political and cross-contextual conversation that constitutes our public discourse, including the discourse in the secular academy. In this form of public inquiry I see the church, or rather specific, contextualized churches, as the natural context, but not the only context for theological inquiry (2011b:95).

Furthermore, in “The Philosophical Roots of Public Theology” (2009) Van Huyssteen explains:

My argument for interdisciplinarity has been precisely the fact that Christian theology, as quintessentially public theology, should be answerable to canons of

Challenges to Rationality” (2006) to the same festschrift, Roger Trigg (Shults 2006:107) writes: “Van Huyssteen has boldly confronted the question of the role of a public theology in a world molded by the fact of pluralism in belief.”

inquiry defensible within, and across, the various domains of our common discourse. And in this open, interdisciplinary dialogue we recognise that the criteria we apply to identify good theology can never be generated by one discipline only (2009:62).²⁰⁷

The second reason essential to understanding Van Huyssteen as *a public theologian* is that he engages in public reflections as a rational agent in conversation with other rational agents. For Van Huyssteen, public theology is not a specific discipline, but rather theologians actively transcending their reasoning strategies and research traditions. It is as embodied rational agents that theologians engage and reflect on shared issues within the wider community. He explains:

A postfoundationalist approach to interdisciplinary problems helps us to understand that we are rational agents situated in the rich, narrative texture of our social practices and traditions, and that our self-awareness and self-conceptions are indispensable starting points for interdisciplinary dialogue (2009:63).

The third reason why Van Huyssteen is described as *a public theologian* is because he engages specific rational agents regarding specific issues within a specific context. Therefore, Van Huyssteen is not described as the public theologian or as a theologian who practices public theology. Van Huyssteen is a public theologian because he, along with other theologians, reflects on issues within the wider academic project as an embodied, contextually shaped theologian. He explains:

I have argued that an awareness of the radical social and historical contextuality of our rational reflection should always...focus on specific theologians who are

²⁰⁷ Stanley J. Grenz (1988:19) makes a similar observation about the work of Pannenberg: "He is seeking to provide a new direction in theological understanding to combat what he perceives to be a widespread privatization of theology. For him theology is a public discipline, subject to the same critical canons as are the other sciences." Carl Braaten also comments: "Pannenberg's method takes the risk of placing all his theological principles on the open market of public accountability, holding nothing back on a private Christian reservation. The commitment of faith, however existentially meaningful, cannot be used as an argument for the validity and truth of a proposition."

trying to develop very specific kinds of theologies, and who are attempting to enter into interdisciplinary dialogue with very specific scientists working within the disciplinary context of specified sciences on clearly defined, shared problems, or even research trajectories (2009:63).

In developing a postfoundationalist notion of human rationality, a postfoundationalist theology and a postfoundationalist facilitation of interdisciplinary conversation and reflection, Van Huyssteen addresses three issues: firstly, the nature of human rationality; secondly, the focus of theological reflection; and finally, the ethos and methodology of interdisciplinary conversation and reflection.

After his work on Pannenberg, Van Huyssteen concerned himself with theological methodology. Van Huyssteen finds that the main issue demarcating theological reflection from scientific reflection is *personal commitment*. It is this personal commitment that leads scientists and theologians alike to conclude that theological reflection is not rational. This understanding discredits theologians as valid partners in the academic project and leads some theologians to develop esoteric theologies devoid of any credibility in wider academic circles. This does not only lead to irrelevant theologies, but also distances theologians from the developments around the criteria of what is understood as *rational*.

Breaking through isolated theological reflection, Van Huyssteen consults the work of philosophers of science regarding the standards of rationality. He discovers that *logical positivism* has been discredited by philosophers of science such as Thomas S. Kuhn. These philosophers of science have shown that personal commitment is essential to human knowledge and that there is no value-free knowledge. This means that personal commitment plays a role in both theological and scientific methodology. The question then, according to Van Huyssteen, is not *how to avoid personal commitment in rational reflection*, but rather *how personal commitment should be employed in rational reflection?*

Therefore, Van Huyssteen argues that theologians are justified in holding onto their personal commitments in theological reflection and develops criteria for rendering theological reflection rational. Van Huyssteen suggests three criteria in his *critical realist* model of theological methodology. He explains that theology should: depict reality; have critical and problem-solving abilities; and be constructive and progressive.

However, the move beyond *logical positivism* in philosophy of science leads to what is now known as *postmodernism*. Van Huyssteen engages the postmodern project and, while recognising that his academic project is part of the postmodern project, distinguishes himself within this project as a *postfoundationalist*.

Van Huyssteen explains that a postfoundationalist approach entails a positive interpretation of postmodern attitudes and attempts to split the difference between modernist and postmodernist approaches. Modernist approaches, drawing on foundationalist epistemologies, try to remove humanity from rationality, while postmodernist approaches, drawing on nonfoundationalist epistemologies, tend to lead to relativism by overestimating the contextuality of human rationality. The postfoundationalist, according to Van Huyssteen, acknowledges that human knowledge is contextually shaped, but recognises that human rationality is not contextually bound. For the postfoundationalist rationality is:

The epistemic quest for *optimal understanding* and *intelligibility*; and the epistemic skill of *responsible judgement* involving *progressive problem-solving*.

This leads the postfoundationalist to argue that the differences in the methodologies of disciplines/reasoning strategies are not due to the level of rationality achieved within these methodologies, but rather due to a difference in foci, experiential scope and heuristic structures of these reasoning strategies.

As such, Van Huyssteen turns his attention to the focus, experiential scope and heuristic structures of theological reflection. Here Van Huyssteen argues for *religious experience* as the focus of theological reflection. The postfoundationalist theologian, according to

Van Huyssteen, reflects on *views of life* that generate *religious experience* as the best available explanation of believers' experiences. Furthermore, Van Huyssteen argues that *Scripture*, as a collection of reflections on religious experience, forms part of the heuristic structure of theological reflection. However, while the Bible draws the contours of the Christian religious tradition, theological reflection, as an academic reasoning strategy, draws on wider resources as well.

Therefore, because of the nature and focus of theological reflection, Van Huyssteen argues for the necessity of interdisciplinary conversation as part of theological reflection.

It is his insight into the *shared resources of human rationality* which leads Van Huyssteen to argue that theologians and scientists can engage each other *transversally* in interdisciplinary conversation and reflection. Theologians and scientists can engage each other, with their personal commitments, in the safety of what the postfoundationalist calls *transversal spaces*. The insights gained within these transversal spaces, through interdisciplinary conversation and reflection, can then be taken back to be incorporated into the respective reasoning strategies of the conversational partners and appropriately applied according to the criteria of their respective methodologies.

Postfoundationalist theologians can and should, according to Van Huyssteen, step outside their reasoning strategies and research traditions and engage other reasoning strategies and research traditions through interdisciplinary conversation and reflection. Theologians, however, should not engage reasoning strategies and research traditions directly, but identify rational agents within these reasoning strategies and research traditions as conversational partners. This not only grants theologians the opportunity to nurture their reasoning strategies and research traditions through continuous interaction with the wider academic project, but also allows theologians the opportunity to become credible, respected and valued conversation partners in understanding the world and ourselves within it.

Through developing his postfoundationalist notion of human rationality, his postfoundationalist refocusing of theological reflection and his postfoundationalist facilitation of interdisciplinary conversation and reflection, Van Huyssteen has become a credible, respected and valued theologian in contemporary conversations regarding the place of humanity in this world. As such, Van Huyssteen, according to postfoundationalist criteria, has become a public theologian. Van Huyssteen writes:

Precisely by allowing ourselves to freely and critically explore the experiential and interpretative roots of all our beliefs in our various domains of knowledge, we as theologians too are freed to speak and reflect publicly, but from within a personal faith commitment, and in this cross-disciplinary conversation with those of other traditions and other disciplines, to discover patterns that may be consonant with or complementary to the Christian worldview. In genuine interdisciplinary conversation this accomplishment, however fragile, should be the definitive move beyond the kind of fideism where our own unique experiences and appropriate explanations are never challenged, and the need for transcommunal conversation is never taken seriously (1999:285-286).

Theologians are called to public engagement because, according to Van Huyssteen, theological reflection draws on the shared resources of human rationality. Van Huyssteen makes this clear:

All our knowing is grounded in interpreted experience and is accountable to interpreted experience, and the adequacy of this accountability is subject to rational justification as justification through interpersonal expertise. These problem-solving judgments apply to both theology and the sciences as we use the same kinds of interpretative and evaluative procedures to understand nature, humans, and the social-historical, and religious aspects of our lives. And in this fact is found the deepest epistemological and hermeneutical reasons why theology by its very nature should be seen as public theology (2011b:96).

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