

**T.F. TORRANCE'S NATURAL THEOLOGY UNDERSTOOD IN ITS
INTELLECTUAL CONTEXT: THE SYNTHESIS OF RATIONAL
STRUCTURE AND MATERIAL CONTENT**

A Thesis Presented for the Degree of Doctor of Philosophy in Theology
at Wycliffe Hall, the University of Oxford

by

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March, 2017

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ACKNOWLEDGEMENTS

There are many who have, in one way or another, contributed to this thesis. I remember Tom and Sue Kent fondly, who provided the financial support to begin theological education almost ten years ago. I am grateful to my many theological teachers at the London School of Theology, particularly Dr. Matthew Knell and Dr. Graham McFarlane who both encouraged me to undertake further research. I am very grateful to my parents, John and Barbara Irving, for their consistent and incredibly generous support in all areas of my life, including my theological studies, and for the different ways they have supported this work. My thanks also go to the communities my wife and I have been part of through our time in Oxford: Wycliffe Hall, St Clement's Church and our home group.

I am particularly grateful to the Reverend Professor Alister McGrath in his capacity as the supervisor of this thesis. This thesis would not have been completed without his expertise, advice and encouragement. My thanks go to Alister for his oversight of this work, and for the ways in which he has modelled to me incisive, charitable scholarship motivated by devotion to the Gospel of Jesus Christ.

This research would not have been possible without the support of the John Templeton Foundation. I am enormously grateful to the John Templeton Foundation for financing this thesis and also our living through its undertaking. I am also grateful to the award made by the Crewdson Trust to support this research. I have appreciated the support of the Diocese of Norwich and I am grateful to the Bishop Graham James for the interest he has shown in my theological development.

My thanks go to those who have assisted in proof-reading this thesis. I am grateful to John Irving, to my brother, Dann Irving and to my friends Ben Care and Matthew White who have all read chapters. Any errors that remain are, of course, of my own making.

Finally, I am very grateful to my loving wife, Sophia, who took the bold step of marrying me when this work was still in its first year. I thank Sophia for bearing with me as I laboured my way through, providing the final thorough proof-read and for her theological insights all of which have significantly improved this thesis.

SHORT ABSTRACT

This thesis argues that the pertinent intellectual context for understanding Thomas F. Torrance's reconstruction of natural theology is the synthesis of the rational structure of knowledge and the material content of knowledge.

The bridge between the synthesis of (i) rational structure and material content, and (ii) natural theology is the analogous relation Torrance set between the relation of natural theology and revealed theology and the relation of practical geometry and physics, which is constituted by the same formal relation of rational structure and material content. By examining Torrance's work on natural theology in this connection it is apparent that the germane methodological issue at stake is the manner of the relation between the rational structure of human understanding and the material content of God's self-revelation in theological cognition.

Torrance's criticism of natural theology concerns its autonomous formulations in which theistic argumentation is established as an antecedent rational sub-structure, from which revealed theology is interpreted and cognized within an anthropocentric correlate system. Accordingly, Torrance's reconstruction of natural theology is the reconfiguration of the relation of rational structure and material content within theological rationality. Applied to the classical loci of natural theology, this takes the form of a reconceptualisation of the cosmological argument and ontological argument, such that the rational structure of theistic argumentation is determined through its connection to revelation at key points. The significance of this inversion of the relation of rational structure and material content extends outwards into Torrance's broader dogmatics, where natural theology is identified as the rational intra-structure of theology, which, in conjunction with revealed theology as material content, constitutes theological science.

The result is a theological approach that sets itself as a development beyond Karl Barth's rejection of natural theology, which conceives of natural theology as the necessary but insufficient condition of theology, under the determination of God's self-revelation.

LONG ABSTRACT

Thomas F. Torrance envisioned a positive future for natural theology as the rational intra-structure of theology determined by God's self-revelation in Jesus Christ. In this way, Torrance's natural theology pertains to the problem of how the rational structure of theology is determined by the actual structure of God's self-revelation.

This thesis argues that the pertinent intellectual context for understanding Torrance's reconceptualization of natural theology is the synthesis of the rational structure of understanding and the material content of intuition. Fundamentally the same formal structure (in which the material the rational structure of our understanding is determined by the material content of positive knowledge of reality through intuition, such that our thought is patterned in accordance to the truth of the object known) is at work in both Torrance's general concept of objectivity and also in his reconceptualization of natural theology.

Integral to this conception of natural theology is the explicit rejection of all the formulations of natural theology that function as a preliminary and isolated sub-structure for revealed theology. In this sense, Torrance's position on natural theology can be held in relation to precursors in the Reformed tradition. For example, Torrance's work on natural theology compares favourably to that of John Calvin, while it is antithetical to that of Jean-Alphonse Turretin. Torrance saw his proposal for natural theology as a development beyond what he saw to be a shortcoming in Karl Barth regarding the integrity of the place of human reason in theology, while still retaining the absolute priority of the grace of God in his self-revelation over our theological knowing.

The introductory material isolates some germane methodological principles which an inquiry into Torrance's work on natural theology must take into consideration. It is argued that natural theology in its most fundamental sense has a very broad frame of reference, which embraces a kaleidoscopic range of implementation. This is significant because what Torrance attempted with natural theology is so different to how some more tightly drawn definitions of natural theology conceive of it, that, unless a broad frame of reference is assumed, the way Torrance sought to integrate his proposals for natural theology with his broader dogmatic method will go unnoticed. Moreover, if Torrance's readers come with a pre-determined understanding of natural theology (as some do) then Torrance's work is interpreted along an independently established frame of reference that does not attend to the new approach Torrance was attempting. Therefore, it is necessary to read Torrance on his own terms and within the context of his own approach to cognition, which is why such emphasis is placed here on the intellectual context of Torrance's natural theology. This thesis also provides a critical evaluation of the existing body of literature on Torrance's natural theology, which situates the current thesis within a wider frame of reference and differentiates itself from previous interpretations.

Part One sets out to demonstrate that the synthesis of rational structure and material content is a central motif in Torrance's thought. It is contended that Torrance's distinctive mode of rationality is established upon a corresponding conception of reality. It is because Torrance understood reality to be such a way that he adopted the mode of rationality that he did. Broadly speaking, there is a unitive impulse in Torrance's thought. Reality is conceived as characterized by a close correspondence between the way things appear and the internal intelligible structures that constitute reality, on account of which

the empirical and the theoretical elements of knowledge are to be held together in an integrated objectivity. Part One is constituted by Chapters One, Two and Three.

Chapter One argues that Torrance's understanding of reality is characterized by the correspondence between something's outward relations to an observer (i.e. appearances) and the internal intelligible patterns that constitute what something is in itself. Torrance's view of created reality is Christocentric (that is, it is controlled by God's self-revelation as Creator and Redeemer through the incarnate Son). From this basis, Torrance derived a conception of the contingent intelligibility of creation, which undergirds subsequent convictions regarding created reality: the independent existence of reality aside from the mental operations of humanity; the internal intelligible order of reality; and the intimate relation between the intelligible order and phenomena. Torrance's understanding of God is characterized by the correspondence between the ontological Trinity and the economic Trinity in which the trinitarian structure of God's self-revelation is found to be determined by the triunity of the being of God, such that the triunity of God is the ultimate grammar of theology.

Chapter Two identifies the major contours of Torrance's re-conceptualization of objectivity. It is argued that Torrance's idea of objectivity is characterized by the compulsion of our thought by the intrinsic intelligibility of reality through phenomena. This is a purposeful reversal of the synthesis of rational structure and material content in Torrance's interpretation of Immanuel Kant. Torrance's objectivity, therefore, is the commitment to know reality in accordance with that which it is in itself. It is argued that such objectivity is achieved through the synthesis of the empirical and theoretical components of knowledge, identified more closely through the antithesis of object-making modes of thought. In the opposition to object-making thought it becomes apparent that Torrance constructed his version of objectivity in contrast to the transcendental idealism of Kant. Torrance's objectivity is found to involve the determination of the rational structure of our theoretical representations by the actual structure of reality through experience, and also the antecedent formulation of ultimate beliefs which are shaped as the framework of thought within which cognition takes place.

Chapter Three examines the mechanism of Torrance's synthesis of rational structure and material content through the synthesis of the logic of systematic form and the logic of empirical form. It is argued that Torrance took a nuanced position on the scope and function of logic. While Torrance was critical of symbolic logic owing to what he perceived to be the prioritization of formal relations over an actual connection to reality, he still held symbolic logic to be uniquely capable of developing discursive systems of great precision and sophistication. Crucially, owing to Torrance's distinctive ontological commitments (characterized by the absolute priority of the intelligible order of the created universe), the rational structure of the complex systems of inferential validity is derived from the order of reality. In this way, the logical structure of our knowledge is shaped by the intelligible relations in reality, and the function of the logical structure of knowledge is to facilitate the further disclosure of that ontic order through drawing valid chains of inference from experience. Torrance applied the same basic syntacto-semantic procedure to his procedure for logical formalization in theology. As with other disciplines, theology must have its own logical machinery with which its own distinctive object is cognized and through which that knowledge is codified. Accordingly, Torrance proposed a theological calculus, a formalized theological language through which to increasingly unfold the inherent meaning of God's self-revelation. However, this theological calculus is not autonomous but is connected at key points to the 'empirical

correlates' of God's self-revelation. Following this, a number of critical responses to Torrance's synthesis of rational structure and material content are engaged with.

Part Two examines Torrance's natural theology from the perspective of the centrality of the synthesis of rational structure and material content to Torrance's mode of rationality. It is argued that the formal relationship evinced in the synthesis of the logic of systematic form and the logic of empirical form is the same as that which characterizes Torrance's proposals for natural theology in its relation to revealed theology. By examining Torrance's work on natural theology in this connection, it is apparent that the germane methodological issue at stake is the manner of the relation between the rational structure of human understanding and the material content of God's self-revelation in theological cognition. Chapters Four and Five constitute Part Two.

Chapter Four examines the negative aspect of Torrance's relation to natural theology, which is his unequivocal rejection of autonomous formulations of natural theology. That the intersection of autonomy and natural theology is the crucial issue at stake in Torrance's rejection of natural theology indicates the strong influence of Karl Barth. There is, however, evidence of the wider Reformed tradition having influenced Torrance. This chapter identifies something of the breadth of natural theology within the history of Reformed theology through an analysis of some representative examples. It is argued that one distinctive (possibly even dominant) attitude toward natural theology in the Reformed tradition is a nuanced position which recognizes its validity only within the context of belief in God's special revelation in the person of Jesus Christ, attested to by the Scriptures. However, it is argued that there is precedent in Reformed thought for formulations of natural theology that operate as an antecedent foundation for revealed theology, exercising determinative influence over how revelation is cognized. In this connection, Torrance's distinctive proposal for natural theology is found to be deeply rooted in the Reformed tradition, and is also a valid response to formulations of natural theology that have found expression in Reformed theology.

The precedent of Barth's rejection of natural theology is also examined. It is argued that Barth understood natural theology to be the knowledge of God aside from God's self-revelation, and therefore his reasons for rejecting it focus on the absolute priority of grace in theological knowing, whereby God is known only in the actuality of his self-revelation out of his readiness to be known by humanity. Particularly clear in his dispute with Emil Brunner is Barth's view that God's self-revelation is not met by a corresponding capacity within humanity to receive his self-revelation, but rather that in his readiness to be known, God enables humanity to be ready to be the knowers of God. Torrance's engagement with Barth's rejection of natural theology is a mixture of direct recapitulation pertaining to the priority of grace and some moderate re-envisioning through bringing Barth's rejection of natural theology to a point of intersection with Barth's understanding of the scientific status of theology. By so doing, Torrance connects Barth's rejection of natural theology to the position Barth took against Heinrich Scholz, and therefore to the abandonment of all prior rational schemas in accordance with which something is cognized, so to facilitate complete obedience to the actual object of theology: the Word of God. By so doing, Torrance deftly re-positioned Barth's rejection of natural theology onto the question of the relation of the rational structure of understanding and the material content.

Moreover, Torrance argued that Barth did not reject the rational structure of NT *per se*, but rather its autonomy from God's self-revelation, thereby setting the trajectory for the

positive reformulation of natural theology. However, Torrance argued that Barth did not ultimately account for the role of the human knowing subject in theology, and failed to satisfactorily integrate the trinitarian structure of God's self-revelation with the rational structure of human understanding. This is where Torrance understood himself to have achieved a development beyond Barth.

Finally, Chapter Four examines Torrance's own rejection of natural theology. In the early part of Torrance's career (1937-1960), Torrance's rejection of natural theology is undergirded by Christological exclusivity and the effect of sin as the absence of grateful dependence upon God and the drive for autonomy. In the later part of his career (1960-2007), Torrance's rejection of natural theology is characterized by epistemological concerns regarding the proper relation of rational structure and material content, and formulations of natural theology that are established prior to revelation as a plausibility structure for revelation are identified as distorting rational schemas in a way that is in parallel to Torrance's criticism of object-making modes of thought.

Chapter Five offers a reading of Torrance's natural theology as the rational intra-structure of theology (that is a rational structure that is internal to the positive knowledge of God through his self-revelation and developed in an *a posteriori* manner and through which God's self-revelation is cognized, rather than an external rational structure established prior to experiencing God's revelation upon which the knowledge of God through his self-revelation is established). The bridge between Torrance's unitary mode of rationality and his work on natural theology is the analogous relation he established between the relation of natural theology and revealed theology and the relation of practical geometry and physics. These relationships are in correspondence to one another on account of the fact that, formally speaking, they are both constituted by the same synthesis of rational structure and material content, through which the rational structure of our knowledge is determined by the material content. Accordingly, it is argued that Torrance's natural theology is characterized by the inversion of the relation of rational structure and material content which he found in autonomous formulations of natural theology.

This is applied to the classical loci of natural theology in Torrance's versions of the cosmological argument and the ontological argument, where the rational structure of theistic argumentation is brought under revealed theology. The implications of the formal relation between rational structure and material content are extended into the very structure of theology itself, where natural theology is identified as the rational intra-structure of theological science (the human rational structure through which God's self-revelation is cognized). It is argued that the significance of this inversion of the relation of rational structure and material content extends outwards into Torrance's dogmatic theology where the rational structure of our understanding is shaped in accordance with the pattern of God's self-revelation, which is most powerfully articulated in Torrance's trinitarian theology. Chapter Five concludes with an evaluation of Torrance's natural theology.

This angle of approach has provided several fresh insights. It enables a fuller understanding of exactly what Torrance attempted to do with his proposals for natural theology, which enables Torrance's natural theology to be held in a more positive relationship to his broader dogmatics than other interpretations allow. In this connection, this thesis provides a perspective from which to rightly assess what is 'natural' about Torrance's natural theology in that it is in *accordance with the nature* of God's self-revelation, which opens up the subversive tone of Torrance's proposal. Moreover,

Torrance's natural theology is found to be a vital resource in delineating how he understood the relationship between divine revelation and human reason in theological knowledge, which is an important point at which Torrance understood himself to be developing beyond Barth. These new insights open up new questions about Torrance's corpus, his relation to Barth and also the place of human reason in theology.

CONTENTS

Declarations	i
Acknowledgements.....	ii
Short Abstract	iii
Long Abstract	iv
Contents	ix
Abbreviations.....	xiii
Introduction	1
1.0. Introducing T.F. Torrance	1
2.0. Scope and Contribution	10
3.0. Outline	14
4.0. What is Natural Theology?.....	19
4.1. Breadth of Natural Theology	19
4.2. Accounting for the Breadth of Natural Theology: Contextual and Methodological Considerations	23
4.3. The Significance of the Breadth of Natural Theology for the Current Study.....	29
5.0. The Ontological and the Cosmological Argument in Torrance	30
6.0. The Current State of the Literature on Torrance's Natural Theology: Critical Comments on Key Themes.....	32
6.1. Theology of Nature and the Dialogue between Theology and the Natural Sciences	34
6.1.1. Elmer Colyer	34
6.1.2. Myk Habets	37
6.1.3. Alister McGrath.....	40
6.1.4. Travis McMaken	42
6.2. The Basis of Autonomous Natural Theology	46
6.2.1. Paul Molnar	46
6.2.2. Rodney Holder.....	52
6.3. The Rational Intra-Structure of Theology	55
6.3.1. John Morrison.....	56
6.3.2. Susan Murtha-Smith.....	58
6.3.3. Wing-Hong Wong	58
6.3.4. Colin Weightman.....	59
6.3.5. Roger Newell.....	61
 PART ONE THE INTELLECTUAL CONTEXT OF TORRANCE'S NATURAL THEOLOGY	 63
Chapter One Reality.....	64
1.0. <i>Kataphysical</i> Knowledge and Realism.....	65
1.1. Accompanying Suppositions Regarding Reality	66
1.2. Torrance and Realism	68
2.0. Torrance on Created Reality	72
2.1. The Theological Basis: The Doctrine of Creation	72
2.2. Three Loci for Created Reality	75
2.2.1. Intrinsic Intelligibility.....	76
2.2.2. Stratification of Reality.....	85

2.2.3. The Truth of Being	88
3.0. The Doctrine of God	93
3.1. The Truth of God	94
3.2. <i>Homoousion</i>	95
3.3. Ontological Trinity and Economic Trinity	99
3.4. The Ground and Grammar of Theology	105
3.5. Stratification and the Doctrine of the Trinity.....	108
 Chapter Two Objectivity	112
1.0. Object-Making Thought: The Imposition of Intelligibility	114
2.0. Objectivity	124
2.1. Scientific Objectivity: The Determination of the Rational Structure of Knowledge by the Actual Structure of Reality	130
2.1.1. The Priority of Actual Connections	131
2.1.2. General Science and Special Science	134
2.1.3. Heteronomy	136
2.1.4. The Nature and Role of Theories.....	142
2.2. Critically Realist Objectivity: The Shaping of the Framework of Thought.....	144
2.2.1. The Objective Determination of the Framework of Thought: Ultimate Beliefs	150
2.2.2. The Social Co-efficient of Knowledge	152
 Chapter Three Logic	157
1.0. Torrance and Logic.....	158
1.1. Traditional and Symbolic Logic	158
1.2. The Importance of Connections	160
1.3. Symbolic Logic and Empirical Correlates.....	163
2.0. The Synthesis of the Logic of Empirical Form and the Logic of Systematic Form.....	168
2.1. Intuition and Formal Knowledge	171
2.1.1. Intuition.....	173
2.1.2. Formal Knowledge	174
2.2. Existence Statements and Coherence Statements.....	175
2.2.1. Existence Statements	176
2.2.2. Coherence Statements.....	178
2.2.3. The Synthesis of Existence Statements and Coherence Statements.....	180
2.3. Disclosure Models	185
3.0. Logical Formalization in Theology	185
4.0. Critical Responses to Torrance on Logic: Engagement and Responses.....	187
4.1. Logical Exclusivity	188
4.1.1. Donald Klinefelter: The Dualism of Object-Orientated Logic	188
4.1.2. Carl Henry: Compromising the Universal Validity of Truth.....	190
4.2. Intuition.....	191
4.2.1. Ronald Thiemann: Theological Foundationalism	192

PART TWO	NATURAL THEOLOGY	202
Chapter Four	The Rejection of Autonomous Natural Theology	203
1.0.	The Complexity of Natural Theology in the Reformed Tradition.....	204
1.1.	The Insufficiency of Natural Theology: John Calvin	205
1.2.	Theistic Argumentation Established on Revelation: Philip Melancthon	206
1.3.	Rationalistic Natural Theology: Jean-Alphonse Turretin.....	209
1.4.	The Challenge to Rationalistic Natural Theology: Herman Bavinck	214
1.5.	The Objection to Natural Theology as Foundationalism: Alvin Plantinga	215
1.6.	The Objection to Autonomous Natural Theology: Michael Sudduth.....	216
2.0.	Karl Barth's Rejection of Natural Theology	218
2.1.	Natural Theology as Opposition to Grace	218
2.1.1.	The Gifford Lectures (1937-1938): The Incompatibility of Natural Theology and Reformed Theology	219
2.1.2.	The Readiness of God and the Readiness of Humanity	220
2.2.	The Barth-Brunner Dispute (1934).....	222
2.2.1.	'Nature and Grace'	223
2.2.2.	'No!'	225
3.0.	Torrance's Engagement with Barth's Rejection of Natural Theology	227
3.1.	The Objection to Autonomous Natural Theology	228
3.1.1.	The Priority of Grace	228
3.1.2.	The Objectivity of God's Self-Revelation.....	229
3.1.3.	The Scientific Status of Theology	229
3.1.4.	The Unifying Point: Autonomy	232
3.2.	Trajectory for Reconstructing Natural Theology.....	234
3.3.	Development Beyond Barth.....	238
4.0.	Torrance's Rejection of Natural Theology	244
4.1.	Torrance's Early Rejection of Natural Theology	244
4.1.1.	The Auburn Lectures (1938-1939): Specificity and Exclusivity of God's Self-Revelation	245
4.1.2.	<i>Calvin's Doctrine of Man</i> (1949): Theological Anthropology	247
4.2.	Torrance's Later Rejection of Natural Theology.....	251
4.2.1.	Natural Theology as Distorting Rational Structure	251
Chapter Five	Natural Theology.....	255
1.0.	From Rejection to Reconstruction.....	256
2.0.	The Analogy between the Relationship of Natural Theology and Revealed Theology and the Relationship of Practical Geometry and Physics.....	258
2.1.	Introducing the Analogy	258
2.2.	Geometry and Experience.....	261
2.3.	The Parallel Achievements of Albert Einstein and Karl Barth.....	265
2.4.	Practical Geometry and Natural Theology	267
2.4.1.	Relocation within Material Content.....	268
2.4.2.	Reconstruction in Accordance with Material Content.....	270
2.5.	Problems with Torrance's Analogy	273
3.0.	Natural Theology and the Two Senses of the Relation between Rational Structure and Material Content.....	277

3.1. The First Sense: Torrance's Cosmological and Ontological Arguments ...	280
3.2. The Transition to the Second Sense.....	287
3.3. The Second Sense: Natural Theology as the Rational Intra-Structure of Theology	289
4.0. Natural Theology and Theological Science.....	301
4.1. Theology as a Science.....	301
4.2. Theological Science: The Synthesis of Natural Theology and Revealed Theology	312
5.0. The Trinitarian Structure of Theology	314
6.0. Evaluation.....	317
Conclusion	323
Bibliography.....	338

ABBREVIATIONS

<i>BSCL</i>	Belief in Science and the Christian Life
<i>CDG</i>	The Christian Doctrine of God
<i>CDM</i>	Calvin's Doctrine of Man
<i>CFM</i>	The Christian Frame of Mind
<i>CPR</i>	Critique of Pure Reason
<i>CTSC</i>	Christian Theology and Scientific Culture
<i>DCO</i>	Divine and Contingent Order
<i>DJC</i>	The Doctrine of Jesus Christ
<i>GG</i>	The Ground and Grammar of Theology
<i>GR</i>	God and Rationality
<i>HJC</i>	Hermeneutics of John Calvin
<i>KBBET</i>	Karl Barth: Biblical and Evangelical Theologian
<i>KBIET</i>	Karl Barth: An Introduction to his Early Theology 1910-1931
<i>JLPL</i>	Juridical Law and Physical Law
<i>PCT</i>	Preaching Christ Today
<i>PRRD</i>	Post-Reformation, Reformed Dogmatics
<i>RET</i>	Reality and Evangelical Theology
<i>RST</i>	Reality and Scientific Theology
<i>STI</i>	Space, Time and Incarnation
<i>STR</i>	Space, Time and Resurrection
<i>TF</i>	The Trinitarian Faith
<i>TCFK</i>	Transformation and Convergence in the Frame of Knowledge
<i>TNS</i>	Theological and Natural Science
<i>TP</i>	Trinitarian Perspectives
<i>TS</i>	Theological Science

Introduction

1.0. Introducing T.F. Torrance

This thesis establishes the natural theology (NT) of Thomas F. Torrance (1913-2007) in its appropriate internal intellectual context, and examines it as it emerges from that background.

It is argued that the synthesis of the rational structure and material content of knowledge is a governing motif of T.F. Torrance's (hereafter, Torrance) mode of rationality, and that Torrance's NT evinces his attempt to bring the rational structure of theological knowledge under the determination of God's self-revelation as its material content. In so doing, Torrance sought to invert traditional formulations of NT which place NT as a rational substructure to theology upon which revealed theology is established as a superstructure. Torrance's attempt in this was to give account to the place of human cognition as the necessary but insufficient condition of theology.

Torrance was one of the most significant (and prolific) English-speaking Reformed theologians of the twentieth century, and his proposals for NT constitute one of his most creative engagements with the Reformed tradition. Along with others in the Reformed tradition, Torrance adopted a nuanced stance towards NT, in which he accepted the validity of NT, but rejected its isolation as a self-sufficient branch of theology. However, Torrance held this position in a new way, reinterpreting NT as the rational structure of human theological concepts, determined by, and dependent upon,

God's self-revelation. This reconfiguration of NT is intelligible only when held in connection to Torrance's broader conception of rationality. To this end, this thesis argues (i) that Torrance developed a mode of rationality characterized by the synthesis of the rational structure of our concepts and the material content of our experience of reality through intuition, and (ii) that this synthesis constitutes the vital intellectual context from which to understand Torrance's proposals for NT. In this connection, it is argued that Torrance reconstructed NT as the rational intra-structure of theology, which is integrated with revealed theology as material content. This synthesis of NT and revealed theology constitutes 'theological science'.

The biographical details of Torrance's life have been set out in a number of other studies.¹ However, by way of an introduction to Torrance and to some of the ideas explored in this thesis, I would like to draw out some of the aspects of Torrance's life and work that have some bearing upon his mode of rationality in general and on his proposals for NT in particular.

First, Torrance was born to missionary parents (in the Province of Sichuan, West China), into a family of devoted Christian belief.² Both parents had a 'living, dynamic faith centred not on a system of belief, but on the person of Jesus Christ'.³ This prioritizing of an actual encounter with God through the witness to Jesus in the Scriptures as opposed to loyalty to any particular theological schema appears to have had a quite profound impact on Torrance's theological perspective. Indeed, I would suggest that this is an important formative factor to Torrance's resistance to idealized rational systems

¹ A.E. McGrath, *Thomas F. Torrance: An Intellectual Biography*, Edinburgh: T&T Clark, 1999, 3-107; P. Molnar, *Thomas F. Torrance: Theologian of the Trinity*, Farnham: Ashgate, 2009, 1-30; E.M. Colyer, *How to Read T.F. Torrance: Understanding his Trinitarian and Scientific Theology*, Downers Grove: InterVarsity Press, 2001, 35-51; D. Torrance, 'Thomas Forsyth Torrance: Minister of the Gospel, Pastor and Evangelical Theologian' in *The Promise of Trinitarian Theology: Theologians in Dialogue with T.F. Torrance*, ed. E.M. Colyer, Lanham: Rowman and Littlefield Publishers, 2001, 1-30, 1-30.

² D. Torrance, 'Thomas Forsyth Torrance', 3.

³ D. Torrance, 'Thomas Forsyth Torrance', 3-4.

(either philosophical or theological), which would become integral to Torrance's proposals for NT, and his theological perspective more generally.⁴

Second, Torrance was Scottish, and influenced by elements of Scottish thought.⁵ Torrance was personally committed to the development of Scottish theology, founding the Scottish Church Theology Society in 1947 and launching the *Scottish Journal of Theology* in 1948.⁶ Moreover the bulk of his working life was dedicated to contributing to the Scottish theological academy, teaching at New College Edinburgh from 1950-1979. Torrance was directly influenced by the Scottish theological tradition. From his time as a student at New College, Edinburgh (1934-1937) Torrance was exposed to significant exponents of this tradition. These include Hugh Ross Mackintosh from whom Torrance took the conviction that God is toward us in Jesus Christ that which he is in himself,⁷ which would become pivotal to Torrance's theological epistemology. Also, through Daniel Lamont, Torrance was introduced to the notion of the scientific structure of Christian dogmatics, and the mode of cognition in which the knowing subject does not impose cognizable form upon that which is experienced, but that knowledge involves the conforming of our mind to the object under inquiry.⁸ Torrance was also profoundly influenced by Scottish theologians of the nineteenth century such as John McLeod Campbell whose challenge to federal theology compares favourably to Torrance's own negative assessment of federal theology as a rigid system imposed upon revelation.⁹

⁴ T.F. Torrance, *The School of Faith: The Catechisms of the Reformed Church*, London: James Clarke, 1959, 1.

⁵ D.A.S. Ferguson, 'Torrance as a Scottish Theologian', *Participatio: The Journal of the Thomas F. Torrance Theological Fellowship* 2 (2010), 77-87, 77.

⁶ D. Torrance, 'Thomas Forsyth Torrance', 18.

⁷ H.R. Mackintosh *The Doctrine of the Person of Jesus Christ*, Edinburgh: T&T Clark, 1913, 294; R. Redman, 'Mackintosh, Torrance and Reformulation of Reformed Theology in Scotland', *Participatio: The Journal of the Thomas F. Torrance Theological Fellowship* 2 (2010), 64-73, 4.

⁸ D. Lamont, *Christ and the World of Thought*, Edinburgh: T&T Clark, 1934, 12. See also, Molnar, *Theologian*, 5.

⁹ A. Heron, 'T.F. Torrance in Relation to Reformed Theology' in *The Promise of Trinitarian Theology: Theologians in Dialogue with T.F. Torrance*, ed. E.M. Colyer, Lanham: Rowman and Littlefield

Furthermore, as Morrison has demonstrated, Torrance was influenced by Scottish realism. The salient aspects of this tradition that Morrison identifies are (i) direct encounter with reality through intuition (ii) through which our knowledge is conformed to the internal structure of reality.¹⁰ Some of the relevant representatives of this tradition are: (i) John Major who Torrance understood to hold realist convictions including the integration of intuitive and discursive reason;¹¹ (ii) James Clerk Maxwell whose field theory Torrance understood as demonstrating the innate intelligibility of reality and who also developed an associated mode of rationality ('embodied mathematics') in which the inner structure of reality determines human thought¹² and (iii) John Macmurray to whom Torrance referred frequently in his seminal work *Theological Science*, particularly in connection with developing a modality of knowledge that is appropriate to and determined by the object under inquiry, such that our knowledge respects the independent nature of reality and is kept distinct from it.¹³

Third, Torrance was a Reformed theologian, working creatively within the Reformed tradition.¹⁴ In Torrance's estimation, one of the most significant contributions of Reformed theology is a concern with proper objectivity in thought.¹⁵ Reformed theology, Torrance held, surrenders all *a priori* schemas owing to the primacy given to the Word of God, and an associated 'passion for truth from the side of the object'.¹⁶ Further, Torrance believed that the Reformed doctrine of justification by grace implied

Publishers, 2001, 31-50, 36-40. T.F. Torrance, 'Thomas Torrance Responds' in *The Promise of Trinitarian Theology: Theologians in Dialogue with T.F. Torrance*, ed. E.M. Colyer, Lanham: Rowman and Littlefield Publishers, 2001, 303-340, 306-307. See also, J.D. Morrison, 'Thomas Forsyth Torrance's Critique of Evangelical (Protestant) Orthodoxy', *Evangelical Quarterly* 67.1 (1995), 53-68, 55.

¹⁰ J.D. Morrison, *Knowledge of the Self-Revealing God in the Thought of Thomas Forsyth Torrance*, New York: Peter Lang, 1997, 19-20.

¹¹ See below, 172n67.

¹² T.F. Torrance, *Theological and Natural Science*, Eugene: Wipf and Stock, 2002, 12-16.

¹³ T.F. Torrance, *Theological Science*, London: Oxford University Press, 1969., 11-12, 22, 30-31, 35, 121, 123-123. See also, Ferguson, 'Torrance as a Scottish Theologian', 85-86.

¹⁴ R.J. Palma, 'Thomas F. Torrance's Reformed Theology', *Reformed Review* 38.1 (1984), 2-46, 2-3.

¹⁵ Torrance, *TS*, 75-85.

¹⁶ Torrance, *TS*, 75.

that humanity was not innately in the right or the possessors of truth, but had to be put in the right by the gracious act of God.¹⁷ Epistemologically, to know, therefore, cannot take place by the unaided application of human modes of reasoning, for truth is not innate to humanity.¹⁸ Instead, theological knowledge must involve a repentant readiness to base all thought on God's actual self-revelation.¹⁹ According to Torrance, this engendered an interrogative mode of questioning, orientated to 'bring to light the distinctive nature of the realities under investigation'.²⁰ Importantly, Torrance was not a historian of Reformed thought rather. As Heron has demonstrated, Torrance worked creatively with aspects of the Reformed tradition to address contemporary concerns.²¹ Torrance's work on NT should be seen in this sense.

Fourth, Torrance was an important interpreter of the thought of Karl Barth and was significantly influenced by his engagement with Barth. Torrance was introduced to the thought of Barth through his teachers in New College and he studied under Barth at Basel in 1937-1938. During this time, Torrance heard Barth deliver lectures using the material that would become *Church Dogmatics* II/1 and II/2,²² the resonances of which are discernible in Torrance's own insistence that theology begins with the actuality of God's self-revelation as opposed to the possibility of it.²³ In my estimation, this would converge powerfully with Torrance's parents' reluctance to prioritize theological systems

¹⁷ T.F. Torrance, *Theology in Reconstruction*, London: SCM Press, 1965, 162, 270; T.F. Torrance, *God and Rationality*, London: Oxford University Press, 1971, 66-67.

¹⁸ Torrance, *GR*, 67.

¹⁹ T.F. Torrance, 'Science, Theology and Unity', *Theology Today* 21 (1964), 149-154, 151-153. See Morrison, *Self-Revealing*, 18-19.

²⁰ T.F. Torrance, 'The Distinctive Character of the Reformed Tradition' in *Incarnational Ministry: Essays in Honor of Ray S. Anderson*, eds. C.H. Kettler and T.H. Speidell, Colorado Springs: Helmers and Howard, 1990, 2-15, 11-15.

²¹ Heron, 'Torrance in Relation to Reformed Theology', 36-37, 44. This is consistent with Ferguson and Nimmo's description of Reformed theology as a particular theological agenda with thematic resonances common to the tradition, which 'finds new instantiations and expressions evolving in new contexts'. P. Nimmo and D.A.S. Ferguson, 'Introduction', *The Cambridge Companion to Reformed Theology*, Cambridge University Press: Cambridge, 2016, 4-5.

²² Molnar, *Theologian*, 6.

²³ Torrance, *TS*, 25-34.

over the person of Jesus, finding expression in Torrance's eventual repudiation of a prolegomenous form of NT as an idealized rational schema that only distorts our knowledge of the self-revelation of God. In this connection, Barth's identification of theology as a science (particularly clear in contradistinction to the postulates of Heinrich Scholz) exercised a powerful influence on Torrance's thought. Indeed, Torrance understood Barth to have provided the way beyond limitations of Schleiermacher's method which Torrance found to leave a cleavage between the human rational structure and God's self-revelation,²⁴ even if, in the final analysis, Torrance did not consider Barth to have wholly overcome the dichotomy between divine truth and human reason.²⁵

Barth's distinction between God's primary and secondary objectivity also exercised profound influence over Torrance.²⁶ Torrance understood the self-revelation of God in creaturely objectivity to both legitimize and necessitate creaturely forms of thought in theology.²⁷ A significant factor in Torrance's work on NT was Barth's repudiation of NT. However, Torrance proposed a positive future for NT, not in spite of Barth, but in progressive continuity with Barth. Torrance was in basic agreement with the fundamental reasons for Barth's rejection of NT, and his proposals for NT do not set out to contravene Barth's concerns, but rather to build upon the ground that Barth had cleared.

Fifth, Torrance engaged extensively with patristic theology. However, as Jason Radcliff has demonstrated, Torrance was not a patrologist. Rather, Torrance gave a Reformed and evangelical reconstruction of the consensual patristic tradition.²⁸ Torrance

²⁴ See below, 10-11.

²⁵ See below, 238-243.

²⁶ Torrance, *TS*, 135-137.

²⁷ Torrance, *TS*, 207-214, 217-218.

²⁸ J.R. Radcliff, *Thomas F. Torrance and the Church Fathers: A Reformed, Evangelical and Ecumenical Reconstruction of the Patristic Tradition*, Eugene: Wipf and Stock Publishers, 2014, xvii, 57.

did not consider this to be the imposition of alien thought into patristic theology, but rather the illumination of perspectives latent within the patristic tradition by interpreting it from the perspective of Reformed theology, which Torrance considered to be the natural heir of patristic theology.²⁹ The *homoousion*, which Torrance interpreted as indicating the identity between God and his revelation, is at the heart of Torrance's engagement with patristic theology. This is the basis of the thoroughgoing objectivity of patristic theology in Torrance's assessment.³⁰ In this connection, Torrance was profoundly affected by Athanasius of Alexandria, whom Torrance regarded as having constructed a theological method that sets aside all *a priori* conceptions of God such that God's outward relations in the economy of salvation are objectively established in that which God is in his own internal relations.³¹ In a similar way Torrance considered Irenaeus of Lyons to have advanced a way of knowing in which 'orderly understanding [is] controlled from the inherent order and connection of what is known'.³² Therefore, to know is to know something in its inner organic connections rather than imposing cognizable form upon it from without.³³

Sixth, Torrance was a pastor and a Churchman,³⁴ devoting himself to parish ministry through the 1940s: Alyth (1940-1943 & 1945-1947); Beechgrove (1947-1950) and a period of war-time service (1943-1945). Torrance was also engaged in ecumenical work throughout his career,³⁵ devoting significant written engagement with the

See also T.F. Torrance, *Incarnation: The Person and Life of Christ*, ed. R. Walker, Downers Grove: IVP Academic, 2008, 85-86.

²⁹ Radcliff, *Torrance and the Church Fathers*, 55; 114-120; 166-169. Torrance considered the Reformed tradition as a return to the apostolic and patristic foundations of orthodoxy. See T.F. Torrance, *Conflict and Agreement in the Church, I: Order and Disorder*, London: Lutterworth Press, 1959, 77.

³⁰ Radcliff, *Torrance and the Church Fathers*, 66-82.

³¹ T.F. Torrance, *Theology in Reconciliation: Essays towards Evangelical and Catholic Unity in the East and West*, London: Geoffrey Chapman, 1975, 249-250, 255, 264-265; *TNS*, 6, 84, 100.

³² T.F. Torrance, *Divine Meaning: Studies in Patristic Hermeneutics*, Edinburgh: T&T Clark, 1995, 117.

³³ T.F. Torrance, 'The Deposit of Faith', *Scottish Journal of Theology* 36 (1983), 1-28, 1-15.

³⁴ Palma, 'Torrance's Reformed Theology', 4.

³⁵ D. Torrance, 'Thomas Forsyth Torrance', 16-17.

theological principles of ecumenical dialogue for the World Council of Churches meeting in 1948,³⁶ and to the Third World Conference on Faith and Order meeting at Lund in 1952. Following this, Torrance served on the Faith and Order Commission from 1952 to 1962.

It is Torrance's later work in relation to the Orthodox Church that is the most interesting aspect of his ecumenical work for the purposes of this study. Through his friendship with Archbishop Methodius of Askaniya, Torrance was instrumental in establishing the three Consultations between the Orthodox and Reformed Theologians and Churchmen in Istanbul (1979) and Geneva (1981 and 1983).³⁷ Torrance emphasized the need to make the doctrine of the Trinity the central aspect of these discussions, believing that accord on this matter would act as a regulatory framework for all subsequent doctrinal discussions.³⁸ Torrance argued that the doctrine of the Trinity provides the Church with the inherent controlling structure of its theology, through which the logical connections of the Church's theology are conformed to the ontic connections of God's triune being.³⁹ It is this devotion to think in accordance with the actual nature of the object of theological knowledge that so characterizes Torrance's ecumenical writings,⁴⁰ and general theological contribution.

³⁶ T.F. Torrance, 'Concerning Amsterdam. I. The Nature and Mission of the Church: A discussion of volumes I and II of the Preparatory Studies', *Scottish Journal of Theology*, 2 (1949), 241-270, 241-270. McGrath, *Intellectual*, 95.

³⁷ T.F. Torrance, (editor) *Theological Dialogue between Orthodox and Reformed Churches: Volume One*, Edinburgh: Scottish Academic Press, 1985, x-xi.

³⁸ Torrance, *Dialogue* 1.x-xi, xxi, xxiii, xxv-xxvi; T.F. Torrance, 'Memoranda on Orthodox/Reformed Relations', in *Theological Dialogue between Orthodox and Reformed Churches: Volume One*, ed. T.F. Torrance, Edinburgh: Scottish Academic Press, 1985, 3-18, 18. See also, Radcliff's summary and appraisal. J.R. Radcliff, T.F. Torrance and Reformed-Orthodox Dialogue' in *T.F. Torrance and Eastern Orthodoxy: Theology in Reconciliation*, Eugene: Wipf and Stock, 2015, 32-50, 32-50.

³⁹ T.F. Torrance, 'The Trinitarian Foundation and Character of Faith and Authority in the Church', in *Theological Dialogue between Orthodox and Reformed Churches: Volume One*, ed. T.F. Torrance, Edinburgh: Scottish Academic Press, 1985, 79-120, 81-82. Morrison, *Self-Revealing*, 25-26.

⁴⁰ Torrance, *GR*, 112-134.

Seventh, Torrance took a passionate interest in the interface between theology and the natural sciences. In 1978, Torrance was awarded the Templeton Foundation Prize for Progress in Religion for his work on the interaction between Christian theology and the natural sciences.⁴¹ Torrance also wrote extensively on the philosophy of science,⁴² edited a series of texts dedicated to exploring the inter-disciplinary opportunities between theology and the natural sciences,⁴³ and edited a new edition of James Clerk Maxwell's *A Dynamical Theory of the Electromagnetic Field*.⁴⁴

Torrance's fundamental contention was that theology and science are not at a dichotomy, but rather both use creaturely conceptuality (for God has revealed himself in creaturely space and time), and both intend to be determined in thought by the reality into which they inquire.⁴⁵ In this connection, Torrance believed that theology and the natural sciences could each positively contribute to the other's distinctive concerns. Theology, Torrance argued, provides the natural sciences with their basic beliefs that undergird scientific inquiry (he gave the examples of John Philoponus,⁴⁶ Francis Bacon,⁴⁷ and James Clerk Maxwell⁴⁸). The natural sciences, Torrance believed, could assist theology to think in accordance with its proper object by demonstrating true objectivity.

Significantly, Torrance understood himself to be living in the aftermath of a scientific revolution,⁴⁹ which he interpreted as having brought about a new conception of reality as an integrated manifold of structure and substance, and an accompanying new

⁴¹ McGrath, *Intellectual*, 195. For an analysis of Torrance's views on the relationship between theology and science, see McGrath, *Intellectual*, 195-236.

⁴² The fullest collection of Torrance's essays on the philosophy of science is T.F. Torrance, *Transformation and Convergence in the Frame of Knowledge. Explorations in the Interrelations of Scientific and Theological Enterprise*, Grand Rapids: Eerdmans, 1984.

⁴³ *Theology and Science at the Frontiers of Knowledge*.

⁴⁴ J.C. Maxwell, *A Dynamical Theory of the Electromagnetic Field*, ed. T.F. Torrance, Edinburgh: Scottish Academic Press, 1982.

⁴⁵ Torrance, *TS*, xiii, *GG*, 6-7.

⁴⁶ Torrance, *TNS*, 83-104

⁴⁷ Torrance, *TS*, 69ff, 88, 320.

⁴⁸ Torrance, *TCFK*, 215-242.

⁴⁹ Torrance, *Reconstruction*, 260; *TCFK*, 243ff.

mode of rationality characterized by a new synthesis of rational structure and material content.⁵⁰ The immediate impact of this was the renunciation of positivist and instrumentalist modes of thought,⁵¹ and the development of a unitary mode of rationality in which rational form is not imposed upon what is experienced, but rather the rational form inherent in reality, intuitively encountered, determines the rational structure of our conceptual representations.⁵² Importantly, Torrance believed that such a mode of rationality had begun to be developed quite independently in theology through Karl Barth. This is significant as it provides a theological precedent for Torrance to build upon, without becoming dependent on epistemological principles drawn from the natural sciences.

2.0. Scope and Contribution

Torrance identified NT as the rational intra-structure of theology, which is determined by God's self-revelation in Jesus Christ. A 'rational intra-structure' is a rational structure that is internal to the positive knowledge of God through God's self-revelation in that it is developed in an *a posteriori* manner and is the means through which God's self-revelation is cognized. As such, it is in contrast to an external rational structure developed prior to experiencing God's revelation upon which the knowledge of God through his self-revelation is established. Accordingly, Torrance unequivocally rejected any formulation of NT that functions as an autonomous rational schema deployed as a prolegomena upon which the superstructure of the positive knowledge of God is built.

Torrance's version of NT emerges from a complex intellectual context. The inner logic of Torrance's thought is characterized by a unitive impulse which manifests as the

⁵⁰ Torrance, *TCFK*, 61-105, 263-283.

⁵¹ Torrance, *TCFK*, 71-75. Morrison, *Self-Revealing*, 28-30.

⁵² Torrance, *TCFK*, 107-173.

synthesis of the rational structure and the material content of our knowledge. This fundamental synthesis is discernible in all fields of Torrance's thought where he attempted to develop conceptual systems that are determined by the ontic coherence of reality.

Biographically speaking, this unitive impulse was provoked by his reading of Schleiermacher's *Christian Faith* as a student at New College. Torrance found in Schleiermacher's method a sophisticated rational structure, which was isolated from the actual material content of Christian theology, which is God's self-revelation.

I was captivated by the architectonic form and beauty of Schleiermacher's method and his arrangement of dogmatics into a scientific system of Christian doctrine, but it was clear to me that the whole conception was wrong, for due to its fundamental presuppositions Schleiermacher's approach did not match up to the nature or content of the Christian Gospel, while the propositional structure he imposed upon the Christian consciousness lacked any real scientific objectivity. Another and more adequate way of doing what Schleiermacher had attempted was needed, and I was determined from then on to make it one of my primary objectives.⁵³

A crucial theme running through Torrance's contribution from this point on was the attempt to construct a scientific system of Christian doctrine that did not impose its own structure upon the content of Christian thought, but rather allowed the inherent coherence of God's self-revelation to determine the rational schema we use to cognize it. Torrance's NT has not yet been understood as part of this endeavour, but this is integral to a full appreciation of Torrance's reconstruction of NT.

Although a realist, Torrance was aware of the necessity of discursive reason to conceptualisation, but only in conjunction with experience. Torrance did not, however, envisage this integration of experience and understanding in a constructivist sense; instead, Torrance held that to know involves the shaping of the rational structure of understanding by the material content of our experience of an intrinsically intelligible

⁵³ T.F. Torrance, *Karl Barth: Biblical and Evangelical Theologian*, Edinburgh: T&T Clark, 1990, 121-122.

reality. A principle mechanism through which Torrance delineated this synthesis of rational structure and material content is his synthesis of the logic of empirical form and the logic of systematic form.⁵⁴ Through the synthesis of these two different forms of logic, Torrance described how the actual connections in reality are imposed upon the logical connections of our rational systems through experience. Accordingly, the operation of human understanding does not impose cognizable form upon phenomena conceived as representations, but rather exposes the cognizable form that belongs to phenomena independent from our mental activity because phenomena are conceived of as the manifestation of reality and so are not dependent upon correlation to the human mind.

This provides the vital intellectual context from which to understand Torrance's proposals for NT. Torrance's NT relates to God's self-revelation in a way that corresponds to the way in which the logic of systematic form relates to the logic of empirical form. In their respective spheres of influence, the logic of systematic form and NT are the *necessary but insufficient conditions* of knowledge. They are necessary in that in order for reality to be known there must be an appropriate rational structure in human thought and speech. However this rational structure on its own is not a sufficient condition for knowledge, for a rational structure on its own is devoid of material content. In this connection, Torrance understood his work on NT to provide, what he viewed to be, a necessary development beyond Barth in accounting for the actual positive involvement of human cognition in theological knowing, overcoming what Torrance perceived to be an ongoing dualism between divine agency and human agency in Barth's thought.

⁵⁴ See below, 175-185.

Torrance's work on NT has not been understood as well as other areas of his theology.⁵⁵ There are four reasons for this.

First, Torrance's NT has not yet been properly set within its internal intellectual context. Specifically, the complementarity between the synthesis of NT and the positive knowledge of God's self-revelation (revealed theology) and the synthesis of the rational structure of understanding and the material content of experience of reality through intuition has not been satisfactorily drawn out. As such, the continuities between Torrance's proposals for NT and his broader unitary mode of rationality are yet to be capitalized upon. This thesis addresses this by demonstrating that the same formal structure of synthesis is at work in both, and establishes the place of Torrance's NT in relation to his broader dogmatics through this connection.

Second, some interpreters of Torrance's NT have an overly prescriptive understanding of NT, which distorts their analysis. This introductory chapter, therefore, includes a brief analysis of NT, arguing that it is a broad designation capable of a wide variety of implementations. Without this broad definition, Torrance's proposals will break our interpretative framework and become unintelligible.

Third, while there is very strong indication that Torrance intended that his proposals for NT be understood in co-ordination with his broader synthesis of material content and rational structure, limitations in Torrance's own argumentation obscure the connections that exist. Particularly troublesome is the absence of a clear delineation between the different aspects of how NT is conceived of as the rational intra-structure of theology. This has meant that the connection between Torrance's NT as the rational intra-structure of theological science and his broader approach to dogmatic theology (the

⁵⁵ T.F. Torrance, *The Ground and Grammar of Theology: Consonance Between Theology and Science*. New Edition, Edinburgh: T&T Clark, 2001, viii.

determination of the rational structure of our knowledge by the material content of God's self-revelation) has not been clearly observed.⁵⁶

Fourth, Torrance laid considerable stress on the opportunities for interdisciplinary dialogue between theology and the natural sciences. Owing to contemporary concerns making it apologetically desirable to describe a positive relation between theology and the natural sciences, this element of Torrance's NT has dominated the discussion. The collateral damage of this focus has been an ongoing failure to appreciate the substantive methodological issues at stake in Torrance's proposals for NT, particularly regarding the status and role of human reason in the task of theology. While the interface of theology and the natural sciences on the locus of NT is an important aspect of Torrance's NT, it is not the major theme under investigation in this thesis.

3.0. Outline

This thesis is made up of five chapters, which present an argument of two parts. Part One sets the intellectual context within which to understand Torrance's NT. Part Two provides a focussed analysis of Torrance's NT as it emerges from that intellectual context.

Part One is made up of three chapters. In these chapters, it is argued that the synthesis of material content and rational structure of knowledge is a central motif of Torrance's approach to rationality.

The first chapter introduces the conception of created reality and divine reality that undergirds Torrance's synthesis of material content and rational structure of

⁵⁶ For a discussion of the factors involved in Torrance's failure to accomplish a clear delineation, see 276-280.

knowledge.⁵⁷ The main burden of this chapter is to describe and draw out the implications of the correspondence Torrance set between the internal intelligibility of reality and its empirical phenomena. In their own distinct ways, created reality and divine reality are understood by Torrance to be characterized by the determination of outward relations by internal intelligible patterns. For this reason, he believed that the way things appear are not representations that are isolated from reality in itself and existing in the affected sensibility of the observer. Rather, appearances are the manifestation of reality as it is in itself.

First, Torrance's understanding of created reality is explored. Torrance's view of created reality is determined by his understanding of God's self-revelation as Creator, from which Torrance derived a conception of the contingent intelligibility of creation. From this basis, Torrance articulated his understanding of reality through three characteristic concepts: intrinsic intelligibility, truth of being and a stratified conceptualisation of reality. Through these concepts, three essential aspects of Torrance's conception of reality are discerned: (i) the independent existence of reality aside from the mental operations of humanity, (ii) the internal intelligible order of reality and (iii) the intimate relation between the intelligible order and phenomena.

Second, in Torrance's understanding of divine reality, Torrance asserted the correspondence of God's outward relations and internal relations, corroborating this through the *homoousion*, whereby an identity is established between God and God's self-revelation. Torrance developed this fundamental position through positing a correspondence between the ontological Trinity and the economic Trinity. In this way,

⁵⁷ T.F. Torrance, 'Theological Realism', in *The Philosophical Frontiers of Christian Theology. Essays Presented to D.M. MacKinnon*, eds. B. Hebbelthwaite and S. Sutherland, Cambridge: Cambridge University Press, 1982, 169-196, 189; GG, 161-162.

the trinitarian structure of God's self-revelation is found to be determined by the triunity of the being of God such that the triunity of God is the ultimate grammar of theology.

Chapter Two introduces the basic contours of Torrance's synthesis between the material content of knowledge and the rational structure of our theoretical representations through an analysis of Torrance's version of objectivity. It is argued that Torrance's idea of objectivity is characterized by the compulsion of our thought by reality such that reality is known in accordance with that which it is in itself. However, Torrance's object-orientated epistemology does not intend to obviate the place of the epistemic subject. Torrance was keenly aware of critical philosophy and the epistemological problems that accompany the attempt to harmonize subjective experience through a regulatory structure of cognition. Instead, Torrance attempted to combine the emphasis of objective compulsion with active subjective involvement.

For Torrance, true objectivity is achieved through the natural synthesis of the empirical and theoretical components of knowledge. Torrance's ontology does not allow for phenomenological reductionism. Accordingly, the power of the human mind to develop conceptual representations of reality (the theoretical) does not take precedence over experience (the empirical). Instead, both experience and the generation of concepts work in conjunction to expose the cognizable form that is inherent to phenomena such that the intrinsic intelligibility of reality determines all our thought concerning reality. In this connection, Torrance's version of objectivity is antithetical to object-making thought. While objectivity is the imposition of the rational form inherent in reality upon the human mind, object-making thought is the imposition of cognizable form upon reality from the imperial activity of the human mind. Accordingly, the theoretical layers of knowledge in object-making thought are not held to be determined by the intelligible form inherent in reality. On the other hand, Torrance's empirico-theoretical objectivity involves the

determination of the rational structure of human thought by the actual structure of reality through experience. An important aspect of this is Torrance's notion of 'ultimate beliefs' (convictions regarding reality that are impressed in a pre-logical fashion upon the human mind by the very force of reality). These ultimate beliefs are held to be normative for subsequent inquiry into reality. In this way, Torrance sought to account for the subjective element in objective thought.

Chapter Three develops the synthesis of the empirical and theoretical components of knowledge through Torrance's syntacto-semantic approach to logic. Torrance adopted a nuanced position on the scope and function of logic. While Torrance was critical of symbolic logic owing to what he perceived to be the prioritization of formal relations over an actual connection to reality, he still held symbolic logic to be a powerful tool in developing precise discursive systems. Accordingly, Torrance saw a valid function for an attenuated formal logic as inferential chains that are connected to reality via empirical correlates at key points. The ensuing syntacto-semantic approach is constituted by the synthesis of Torrance's logic of empirical form and logic of systematic form. Through this synthesis, Torrance provided his explanation of how the material content of knowledge and the rational structure of our theoretical representations are held together in one composite structure. This is demonstrated through Torrance's account of the 'problem of *ontologic*', which is the problem of how to relate the logical structure of our theoretical representations to the logical structure inherent in the reality known, which Torrance approaches through existence statements and coherence statements. It is argued that Torrance applied the same formal syntacto-semantic procedure to logical formalization in theology.

Part Two of the thesis interprets Torrance's version of NT from the perspective provided by the intellectual context set in Part One.

Chapter Four provides an analysis of Torrance's rejection of autonomous NT. Torrance's rejection of autonomous NT is part of Reformed theology's complex relation to NT more broadly. The status of NT in the Reformed tradition is presented through several representative examples. Of particular significance is the precedent of Barth. It is through engaging with Barth's rejection of NT that Torrance came to isolate the autonomous character of NT as its recalcitrant element. Torrance's rejection of an autonomous NT is, however, marked by some development beyond his Reformed heritage, owing to his distinctive epistemological convictions. Torrance came to reject autonomous NT on account of the similarities between object-making modes of thought and autonomous NT: both impose a rational structure upon the material content of knowledge, rather than allowing the coherence implicit in what is encountered to determine our understanding of it. However, while Torrance understood Barth to have successfully exposed autonomous NT as imposing an extraneous rational schema upon revelation, Torrance did not think Barth succeeded in making the corresponding move in accounting for the determination of the rational structure of our understanding by revelation. In this way, Torrance sought to develop beyond Barth by reconstructing NT.

Chapter Five explores Torrance's NT understood as the rational intra-structure of theology. That the synthesis of rational structure and material content is the intellectual context of Torrance's NT is demonstrated through analysing Torrance's proportional analogy between (i) the synthesis of practical geometry and physics and (ii) the synthesis of NT and revealed theology. This analogy is the crucial bridge between Torrance's mode of rationality and his work on NT, as it demonstrates that the same formal relationship between rational structure and material content is at stake in Torrance's work on NT. Through this connection it is demonstrated that NT is the rational structure that is determined by revelation. This is worked out primarily within the classical loci of NT, but

the implications of the formal relation between rational structure and material content are extended into the very structure of theology itself, where NT is identified as the rational intra-structure of theological science, the rational structure through which God's self-revelation is cognized.

4.0. What is Natural Theology?

NT as the rational intra-structure of theology involves a conceptual shift from more common understandings of NT. For this reason, some comments are necessary on what NT actually is.

4.1. Breadth of Natural Theology

NT is not a concept that can be easily defined because, in practice, there have been such a wide variety of different formulations of NT. Despite this, some have defined NT very precisely as the study of God from the resources of the natural world independent from any religious presuppositions. Within this limited conception of NT, there are further degrees of precision. NT has been further reduced to theistic argumentation from *a priori* axioms, or the attempt to demonstrate the existence and attributes of God through reflection on the characteristics of the natural world, independent from what is known through God's revelation through Jesus Christ. For example, Taliaferro has given the following definition of NT.

Natural theology is the practice of philosophically reflecting on the existence and nature of God independent of real or apparent divine revelation or Scripture. Traditionally, natural theology involves weighing arguments for and against God's existence, and it is contrasted with *revealed theology*, which may be carried out within the context of ostensible revelation or Scripture.⁵⁸

⁵⁸ C. Taliaferro, 'The Project of Natural Theology', in *Blackwell Companion to Natural Theology*, eds. J.P. Moreland and W.L. Craig, Oxford: Wiley, 2009, 1-23, 1.

In Taliaferro's view, NT is identified as the activity in which knowledge about the existence and attributes of God is developed independent from Scripture or revelation. In this, Taliaferro leans toward independent theistic argumentation as the method of NT.

Likewise, Alston's definition of NT emphasises that NT is not established on any religious beliefs and he places emphasis both upon reflection on the created order and also analytic inquiry into 'God' as concept.

Natural theology is the enterprise of providing support for religious beliefs by starting from premises that neither are nor presuppose any religious beliefs. We begin from the mere existence of the world, or the teleological order of the world, or concept of God, and we try to show that when we think through the implications of our starting point we are led to recognize the existence of a being that possesses attributes sufficient to identify him as God.⁵⁹

Alston's view of NT is characterized by inference from foundational premises that are not established on religious belief, finally resting on a conclusion regarding a divine being as the predicate contained within the premise. This inferential chain has the purpose of 'providing support' for religious beliefs. In this sense, NT acts as the discursive basis upon which the knowledge of God through revelation is established.

Connecting these descriptions of NT is the assertion that NT is the development of knowledge of God from resources that are common to all humanity aside from positive knowledge established on God's act of revelation through Jesus Christ. According to both writers, NT is constituted by a chain of valid inference from foundational premises, upon which the positive knowledge of God through his self-revelation through Jesus may be established or supported. In these formulations of NT, the rational structure of theological concepts is developed aside from the material content of God's self-revelation in Jesus Christ. All such versions of NT function via an argumentative chain of valid inference

⁵⁹ W.P. Alston, *Perceiving God: The Epistemology of Religious Experience*, London: Cornell University Press, 1991, 289.

whether it be (i) drawn by conceptual analysis of an *a priori* postulate or (ii) from the *a posteriori* basis of our experience of the natural world.

Similar descriptions of NT can be found in a number of other contemporary discussions.⁶⁰ While these are valid descriptions of a particular kind of NT, they all mistake one or two species of NT for its genus. The conceptual space designated by NT is significantly broader than all such definitions allow.⁶¹

Recent studies have argued that NT is a flexible designation which has been applied to a wide range of different approaches to the knowledge of God.⁶² McGrath has argued that NT is a ‘fluid’ concept,⁶³ meaning that NT has not behaved as one normative theological project, but has been practiced in a variety of different ways. For this reason, NT should not be understood only as an ‘attempt to prove the existence of God on the basis of purely natural arguments’.⁶⁴ As a function of this, McGrath has identified several different formulations of NT.

- (i) The *a priori* movement of the human mind toward God, expressing humanity’s innate desire for God.

⁶⁰ H. De Cruz and J. de Smedt, *A Natural History of Natural Theology: The Cognitive Science of Theology and the Philosophy of Religion*, Cambridge: The MIT Press, 2015, 5-6; O. Anderson, ‘The Presuppositions of Religious Pluralism and the Need for Natural Theology’, *Sophia* 47.2 (2008), 201-222, 206-7; R. Holder, *The Heavens Declare: Natural Theology and the Legacy of Karl Barth*, West Conshohocken: Templeton Press, 2012, 3; A. Moore, ‘Should Christians Do Natural Theology?’, *Scottish Journal of Theology* 63.2 (2010), 127-145’, 128; E.T. Long, *Prospects for Natural Theology*, Washington: Catholic University of America Press, 1992, 2; J. Barr, *Biblical Faith and Natural Theology: The Gifford Lectures for 1991, Delivered in the University of Edinburgh*, Oxford: Clarendon Press, 1993, 1-3.

⁶¹ H. Bouillard, *The Knowledge of God*, trans. S.D. Femanio, London: Burns and Oates, 1968, 14.

⁶² See also, R.E. Manning, ‘Introduction’ in *The Oxford Handbook of Natural Theology*, eds. J.H. Brooke, R.E. Manning and F. Watts, Oxford: Oxford University Press, 2013, 1-5.

⁶³ A.E. McGrath, *Re-Imagining Nature: The Promise of a Christian Natural Theology*, Hoboken: Wiley-Blackwell, 2016, 18-22; A.E. McGrath, *Darwinism and the Divine: Evolutionary Thought and Natural Theology*, Hoboken: John Wiley and Sons, 2011, 15-16.

⁶⁴ McGrath, *Darwinism and the Divine*, 12.

- (ii) An interpretation of nature based on *a priori* concepts, innate to the human mind, which are used as demonstrations of the existence and attributes of God.
- (iii) A 'theology of nature', which is an interpretation of nature determined by the set of beliefs derived from revelation and the accompanying Christian tradition.
- (iv) The investigation of perceived correspondences between experience of nature and religious experiences which are traced back to the same source.⁶⁵

Challenges could be made to McGrath's specific taxonomy. For example, McGrath perhaps underplays the significance of *a priori* theistic argumentation of an ontological type. This is reflected in his contention that NT designates the idea that 'there exists some link between the world we observe and another transcendent realm',⁶⁶ which establishes the parameters of NT too tightly on cosmological approaches. Despite this, McGrath's fundamental contention that NT is a broad concept capable of application in a wide variety of formulations should be accepted.⁶⁷

Like McGrath, David Ferguson has argued that there is no one simple type of NT, but rather five broad groups which are context specific.⁶⁸

- (i) A prolegomenous foundation upon which claims to belief are justified.⁶⁹
- (ii) Theistic argumentation regarding God's existence and attributes that is independent from Scripture and the tradition of the Church.

⁶⁵ McGrath, *Darwinism and the Divine*, 15-16.

⁶⁶ McGrath, *Darwinism and the Divine*, 12.

⁶⁷ McGrath has subsequently proposed six different approaches, which goes some of the way to addressing this oversight, recognising the proofs of the existence and attributes of God developed by the autonomous deployment of human reason. McGrath, *Re-Imagining*, 18-22.

⁶⁸ D.A.S. Ferguson, 'Types of Natural Theology', in *The Evolution of Rationality: Interdisciplinary Essays in Honor of J Wentzel Van Huysteen*, ed. F. LeRon Shults, Grand Rapids: Eerdmans, 2007, 380-393, 380-393.

⁶⁹ M.L.C. Sudduth, 'The Prospects for "Mediate" Natural Theology in John Calvin', *Religious Studies* 31 (1995), 53-68, 64; Moore, 'Should Christians Do Natural Theology?', 128.

- (iii) Theistic argumentation by divinely bestowed reason that is not independent from the grace of God, but is rather deployed in the context of faith.
- (iv) An apologetic role in challenging intellectual positions contrary to Christian belief.
- (v) A collaborative role in which NT exists to demonstrate the compatibility between theology and other disciplines.

While Ferguson stresses the great variety of approaches to NT, he neglects the cosmological approaches to NT. Despite some shortcomings, the contributions of both McGrath and Ferguson demonstrate that NT is a dynamic concept, capable of a wide range of implementations. There is no simple account of what NT must entail and no definitive body of methodological commitments that must necessarily be included in any of its various implementations.⁷⁰

4.2. Accounting for the Breadth of Natural Theology: Contextual and Methodological Considerations

The breadth of natural theology can be accounted for by (i) the contextual situation in which specific formulations of NT were developed, and (ii) the deep-lying methodological distinctions within NT.

First, Brooke and Cantour have accounted for the variety within NT by suggesting that the different formulations of NT have been shaped by the contemporary cultural and intellectual factors of any given period. Accordingly, they argue, it is a mistake to isolate particular formulations of NT from their respective contexts and hold them up as normative.⁷¹ Likewise, Macquarrie has noted that the ‘traditional’ understanding of NT as

⁷⁰ J. Macquarrie, *Thinking about God*, London: SCM Press, 1976, 137.

⁷¹ J. Brooke and G. Cantour, *Reconstructing Nature: The Engagement of Science and Religion*, Edinburgh: T&T Clark, 1988, 141-175 (esp. 146-153). See also, Ferguson, ‘Types of Natural Theology’,

logical demonstration from commonly accepted premises developed aside from revelation, laid as the foundation for the superstructure of revealed theology,⁷² has more to do with social, cultural and intellectual factors in the modern West than with what NT essentially is.⁷³ Similarly, McGrath has argued that the modern understanding of NT as the development of theological thought from non-theological presuppositions is not integral to NT itself but rather has emerged from a matrix of cultural, spiritual and intellectual conditions.⁷⁴

McGrath's and Macquarrie's point is that the association between NT and the derivation of the knowledge of God aside from religious presuppositions reflects the 'historical contingencies of the "Age of Reason"', and should not be mistaken as normative for what NT is pertaining to its essence.⁷⁵ One example of this is the effect of Newton's distinction between absolute and relative space and time, which has been understood to have led to uncertainty regarding God's actual involvement in space and time, thus calling into question God's special revelation through Jesus Christ. This, combined with the advent of Darwinism and the attribution of variety to immanent processes rather than to the Creator's design, converged to form a muscular deism.⁷⁶ For

380; McGrath, *Re-Imagining*, 11-18; G.J. Spykman, *Reformational Theology: a New Perspective for Doing Dogmatics*, Grand Rapids: Eerdmans, 1992, 26-31, 142.

⁷² See, for example, W. Pannenberg, *Systematic Theology*, Volume One, trans. G.W. Bromiley, Grand Rapids: Eerdmans, 1991, 79.

⁷³ Macquarrie, *Thinking About God*, 132, 137.

⁷⁴ McGrath, *Re-Imagining*, 16; *Darwinism and the Divine*, 49-84.

⁷⁵ McGrath, *Re-Imagining*, 16-17; *Darwinism and the Divine*, 49-84; A.E. McGrath, *Emil Brunner: A Reappraisal*, Chichester: Wiley Blackwell, 2014, 95-97. See also, De Cruz and De Smedt, *Natural History of Natural Theology*, 9. See also Holder's overview of the sensitivity of NT to contemporary philosophical developments. R. Holder, 'Natural Theology in the Twentieth Century', *The Oxford Handbook of Natural Theology*, eds. J.H. Brooke, R.E. Manning and F. Watts, Oxford: Oxford University Press, 2013, 118-120.

⁷⁶ For more on the social and intellectual conditions of English NT and its own particular challenges from Darwinism and Newtonian science see McGrath, *Brunner*, 96; *Darwinism and the Divine*, 49-84; Ferguson, 'Types of Natural Theology', 380-384; Brooke and Cantour, *Reconstructing Nature*, 157, 161-166.

this reason, formulations of NT that set out to prove the existence of God from immanent processes or concepts were developed in order to bolster religious belief and thought.⁷⁷

It has been argued that the same scenario is found in the interface between theology and philosophy. Sudduth has suggested that the understanding of NT as the development of theological statements via logical deduction from non-religious presuppositions is not integral to NT itself, but is rather a theological reaction to the analytical philosophy of religion.⁷⁸ In this connection, the idea of NT as a ‘human attempt to gain knowledge of God apart from revelation’ does not indicate what NT is essentially, but rather its deployment in relation to a particular set of historical circumstances.⁷⁹

As a function of the intimate relation between formulations of NT and the cultural and intellectual context in the modern period, it is quite illegitimate to prioritize any particular breed of NT as normative.⁸⁰ On historical grounds, there is good reason to adopt a broad understanding of what is meant by NT.⁸¹

Second, NT is capable of such a wide range of formulations on methodological grounds. The variance between different versions of NT is driven by two important factors: (i) the distinction between cosmological and ontological approaches to NT, and (ii) different understandings of the relationship between grace and nature in theological knowledge.

⁷⁷ S. Mandelbrote, ‘The Uses of Natural Theology in Seventeenth Century England’, *Science in Context* 20.3 (2007), 451-480, 451-480; S. Mandelbrote, ‘Early Modern Natural Theologies’, in *The Oxford Handbook of Natural Theology*, eds., J.H. Brooke, R.E. Manning and F. Watts, Oxford: Oxford University Press, 2013, 76-92, 76; D.D. Wallace, *Shapers of English Calvinism: Variety, Persistence and Transformation*, Oxford: Oxford University Press, 2011. See, for example, W. Paley, *Natural Theology*, London: C. Knight, 1836.

⁷⁸ M. Sudduth, *The Reformed Objection to Natural Theology*, Farnham: Ashgate, 2009, 48-49.

⁷⁹ McGrath, *Brunner*, 97.

⁸⁰ McGrath, *Re-Imagining*, 16; *Brunner*, 96-97.

⁸¹ McGrath, *Brunner*, 97.

The distinction between the cosmological and ontological approaches to NT can be traced to antiquity in Greco-Roman philosophy. Citing Marcus Terentius Varro, Augustine described the division of theology among Greco-Roman philosophers as encompassing: (i) civic theology, which involved the dispensation of the cultus; (ii) mythical theology, which consisted of the Homeric and Hesiodic tradition; and (iii) natural theology, which involved arguments concerning the existence and the nature of the gods, and is described as that aspect of theology which ‘belongs to the philosophers’.⁸²

This division gives the impression that while civic theology was orientated to praxis and mythological to dogmatic pronouncements, NT was concerned with philosophical argumentation. Accordingly, in his major study of the theology of classical Greek philosophy, Gerson makes no distinction between NT and philosophical theology.⁸³ Gerson contends that in the classical tradition, NT is orientated toward causal explanation. In this connection, the concept of the *archē* is the goal of an inquiry which seeks to know the fundamental causal principle behind the natural world, with the view that by knowing the cause it would enable humanity to understand its effects.⁸⁴

However, there is no uniformity in the philosophical approach of antiquity. On one hand, Cicero in Book Two of *On the Nature of the Gods* took what might be now called a ‘cosmological approach’, maintaining that the order and complexity of nature are effects that point to the cause of a designer.⁸⁵ As such, the character of nature is held to be

⁸² Augustine, *City of God*, trans. M. Dodds, Peabody: Hendrickson Publishers, 2009, 6.5.1 (170-171).

⁸³ L.P. Gerson, *God and the Greeks: Studies in the Early History of Natural Theology*, London: Routledge, 1990, 1n1. For a detailed analysis of the intimate relationship between philosophy and knowledge of, and participation with, the divine in Greek thought, see Miller, *Becoming God*, 1-11.

⁸⁴ Gerson, *God and the Greeks*, 6.

⁸⁵ Gerson, *God and the Greeks*, 155-160. See S. Clark, ‘The Classical Origins of Natural Theology’, in *The Oxford Handbook of Natural Theology*, eds. J.H. Brooke, R.E. Manning and F. Watts, Oxford: Oxford University Press, 2013, 9-21.

indicative of the character of the designer.⁸⁶ Crucially, such an approach begins with the pattern and order of the universe as its datum, and ‘purports to show that the only possible explanation of such order is a god who produced it’.⁸⁷

On the other hand, Plotinus used what might now be identified as an ‘ontological approach’, making statements about ‘god’ through an examination of being as such. For Plotinus, ‘being’ implied form, which itself implied limitation manifesting individual determinate being. The source of existence, for Plotinus, is the One who is beyond determinate being. By this mechanism Plotinus posited the existence of that which is being without determinate essence (a being *per se* in which all else participates for its existence⁸⁸).⁸⁹

These two fundamentally different approaches to NT have been reflected in the modern period, most famously in Paul Tillich’s essay ‘Two Types of Philosophy of Religion’.⁹⁰ In this essay, Tillich laid out ‘two ways of approaching God’.⁹¹ The first is the ‘ontological type’, corresponding to Plotinus’ approach; the second is the ‘cosmological type’, corresponding to Cicero’s approach.⁹²

The second important source for the varieties of NT from the perspective of methodology is how one understands the relationship between grace and nature in the

⁸⁶ Gerson, *God and the Greeks*, 159f. See also, McGrath, *Darwinism and the Divine*, 14-15.

⁸⁷ Gerson, *God and the Greeks*, 155. See also H-J. Klauck’s discussion of Dio Chrysostom’s Olympic oration, H-J. Klauck, ‘Nature, Art and Thought: Dio Chrysostom and the *Theologia Tripertita*’, *Journal of Religion* 87.3 (2007), 333-354, 341-348. See also, H.D. Betz, ‘God, Concept and Cultic Image: The Argument in Dio Chrysostom’s *Oratio* 12 (Olympikos)’, *Illinois Classical Studies* 29 (2004), 131-142, 131-142.

⁸⁸ H.A. Wolfson, ‘Albinus and Plotinus on Divine Attributes’, *Harvard Theological Review* 50 (1957), 115-130, 117-121; S. Menn, ‘Review on *God and Greek Philosophy*’, *The Philosophical Review* 103.3 (1994), 571-572.

⁸⁹ M. Sells, ‘Apophysis in Plotinus: A Critical Approach’, *Harvard Theological Review* 78.3 (1985), 47-65, 48-49.

⁹⁰ P. Tillich, *Theology and Culture*, ed. R.C. Kimball, London: Oxford University Press, 1959, 10-30.

⁹¹ Tillich, *Theology of Culture*, 10.

⁹² Tillich, *Theology of Culture*, 10.

knowledge of God. Can unaided nature facilitate the knowledge of God, or is the knowledge of God solely an event of grace through God's self-revelation through Jesus Christ? Mediating positions within these extremes are, of course, possible: can nature when understood in the context of God's gracious revelation be utilized in the knowledge of God? If so, what are the terms of that co-operation? Is it valid to derive some preliminary knowledge of God from nature alone, aside from grace, and then build the knowledge of God from special revelation upon this 'natural knowledge' as a superstructure is built on a substructure? Or, does grace undergird the knowledge of God in creation, in that we can only fully understand creation once we have known God as Creator and Redeemer?

John Baillie, a senior colleague of Torrance's at New College, argued that much of theology in the modern era has pivoted on the relationship between natural knowledge of God and knowledge of God revealed through Jesus Christ. Commenting on the distinction between NT and revealed theology, with NT pertaining to knowledge of God via 'the unaided exercise of their own powers of thinking', and the latter to knowledge via 'direct communication from God himself',⁹³ Baillie contended that up until the modern era (c. seventeenth century to the twentieth century) these different approaches to theology were in a relation of equipoise. In the modern period, however, Baillie claimed that this balance has been interrupted on account of the influence of the seventeenth and eighteenth century rationalists, who placed emphasis upon unaided reason. That is to say, a division has been cast with the total repudiation of revelation on the one hand and the abandonment of NT through the Reformed emphasis on the noetic effects of sin on the other.⁹⁴ Baillie's point is that unique priority has been given either to natural knowledge of God or to knowledge of God known only through special revelation. Baillie's account

⁹³ J. Baillie, *The Idea of Revelation*, London: Oxford University Press, 1956, 4.

⁹⁴ Baillie, *Idea of Revelation*, 5-8.

suggests that discrete approaches to NT may prioritize the grace of God in giving himself to be known, or they may insist upon the autonomy of nature in being able to resource the knowledge of God. How (or even, whether) a theologian develops a NT depends on their understanding of the relationship between grace and nature. As is developed below, the relationship of grace and nature is an integral part of Torrance's attempt to develop beyond Barth in his own positive proposal for NT.⁹⁵

4.3. The Significance of the Breadth of Natural Theology for the Current Study

NT is a very broad designation, with no hard body of definitive methodological or theological commitments that are reified in each particular example. As a function of this some crucial points need to be borne in mind to facilitate a proper understanding of Torrance's version of NT.

First, it is possible to reject specific formulations of NT without rejecting NT *per se*. This is crucial to a correct understanding of Torrance's proposals for NT. Following Barth, Torrance rejected all autonomous formulations of NT that act as an idealized schema functioning as the interpretative basis of our interaction with revealed theology. However, Torrance also envisioned a positive future for NT. This does not mean that Torrance was inconsistent regarding NT, rather, it means that Torrance rejected some formulations of NT, leaving open the possibility for NT to be built again in a different way.

Second, NT should be broadly identified as the division of theology that uses the resources of nature in the knowledge of God. This fundamental premise is capable of a kaleidoscopic range of implementation. Torrance's idiosyncratic proposals for NT as they emerge in connection with his broader syntacto-semantic approach to knowledge should

⁹⁵ See below, 238-244.

not be set outside what NT can possibly entail. In his NT, Torrance proposed to use the resources of nature in the knowledge of God, through the construction of the rational structure of human theological concepts determined by the antecedent structure of God's self-revelation. Crucially (although Torrance did not make this connection explicit) this is consistent with the implications of the hypostatic union and the associated conception of God's twofold objectivity for the philosophy of theology: creaturely modes of objectivity are made appropriate, even necessary, to theology, but only in a position of absolute dependence on God's self-revelation.

Third, the conceptual breadth of NT means that there is no one normative formulation of NT. Consequently, Torrance's NT must not be analysed from an overly prescriptive idea of what anything bearing the title 'NT' must necessarily contain. Rather, every effort must be made to understand Torrance's proposal for NT on his own terms and from his own words. This factor makes it especially significant that Torrance's NT is understood in its own intellectual context, for in this way Torrance's thought (and not our own pre-conceptions of NT) will control the interpretation.

Despite having said that Torrance's proposals for NT fall outside the parameters of what many might expect NT to involve, there are aspects of Torrance's proposals for NT that reflect what might traditionally be identified as the classical loci of NT.

5.0. The Ontological Argument and the Cosmological Argument in Torrance

Torrance's vision for NT includes reconstituted versions of the ontological and cosmological arguments. These are discussed at greater length below.⁹⁶ Formally speaking, by these versions of the ontological and cosmological arguments, Torrance attempted to invert the relationship he found between rational structure and material

⁹⁶ See below, 280-287.

content in these classical loci of NT. It was Torrance's view that NT, when practiced as a *preambula fidei*, involved the rational structure of human understanding being established independent from revelation, acting as the basis of revealed theology. For Torrance this was both (i) scientifically illegitimate (as it established the way something was cognized independent from actual encounter) and (ii) distorted how revelation was cognized.⁹⁷

Even so, Torrance recognized the validity of a NT which proceeds by inference from basic premises in which not each stage of the deductive system has a direct correlate in God's actual self-revelation. For Torrance, however, this rational structure is joined to God's self-revelation at key points and is inconceivable aside from postulates known only by God's self-revelation. Accordingly, in his versions of the classical loci of NT, Torrance did not describe an antecedent rational foundation upon which revealed theology is established as a superstructure. Instead, Torrance re-sets these classical loci as expressions of NT where the rational structure is determined by God's self-revelation.

The openness of Torrance's NT as rational structure to revealed theology as material content is crucial. It is on this basis that Torrance established an intersection between NT and the proper relation of rational structure and material content at a significantly broader level. It is precisely this intersection between NT as rational structure and revealed theology as material content that constitutes theological science. In this aspect, Torrance addressed the very structure of theological knowing and the nature of the relationship between the rational structure as the subjective foundation through which we cognize revelation and revelation understood as the objective foundation of all knowledge of God. Here Torrance was concerned with accounting for the integrity of human involvement in developing knowledge of God through identifying the necessity that God's self-revelation is cognized by humanity through a rational structure of

⁹⁷ See below, 251-254.

creaturely conceptuality that is determined by the actual structure of God's self-revelation.

6.0. The Current State of the Literature on Torrance's Natural Theology: Critical Comments on Key Themes

Torrance's NT has excited a significant body of comment and critical analysis. There are, however, some common areas of weakness in the secondary literature. There is a tendency to interpret Torrance's proposals for NT from an overly prescriptive understanding of NT. This, in combination with weaknesses in Torrance's own discussion, has led to some obscuration of the core issues at stake in Torrance's NT. Another significant problem is that interpreters of Torrance's thought have not sought to understand his proposals for NT as they emerge from the internal context of Torrance's synthesis between the material content of knowledge and the rational structure of knowledge. This is a connection that Torrance actively encouraged through the proportional analogy he established between the relation of NT to revealed theology and the relation of practical geometry to physics, both of which reify the formal relation of material content shaping the rational structure of knowledge. Despite this, some interpreters have begun to identify that Torrance used NT as the rational intra-structure of theology determined by God's revelation in a way that pertains to its broader reference as the rational structure of theological science. However, examples of this interpretation are not common and are not well developed. As a consequence, the connection between Torrance's NT and the deep internal structures of his thought has largely passed unnoticed.

There are three broad themes which have featured in the critical discussion of Torrance's reconstruction of NT. Different scholars have emphasized different themes, and some have bypassed entire themes altogether.⁹⁸

- (i) A theology of nature,⁹⁹ which has implications for the interface between theology and the natural sciences.¹⁰⁰
- (ii) A return to autonomous human reason acting independently from God's self-revelation.¹⁰¹
- (iii) The rational structure of knowledge determined by the interior coherence of God's self-revelation.¹⁰²

In what follows, these three major themes are outlined through an exposition and critical analysis of their most significant exponents. Broadly speaking, (i) the first position is correct but limited and places exclusive focus on the subsidiary crater of Torrance's work

⁹⁸ For example, Habets ignores NT as the rational intra-structure of theology. M. Habets, *Theology in Transposition: A Constructive Appraisal of T.F. Torrance*, Minneapolis: Fortress Press, 2013, 85-86. A.J.D. Irving, 'Review, M. Habets, *Theology in Transposition*', *Trinity Journal* 37.2 (2016), 298-301.

⁹⁹ Habets, *Transposition*, 82-93; Gill, 'Revelation', 8-12, 23-24; McGrath, *The Order of Things*, 87-88; McGrath, *Scientific Theology*, 1. 294-304; Colyer, *How to Read*, 201.

¹⁰⁰ Habets, *Transposition*, 86, 2013; McMaken, 'Impossibility', 328-337; Munchin, *Is Theology a Science*, 50-54; T.C. Gill, 'The Doctrine of Revelation in the Theology of Thomas F. Torrance', PhD, The University of Leeds, 2007, 139, 158-163; A.E. McGrath, 'Thomas F. Torrance and the Search for a Viable Natural Theology: Some Personal Reflections', *Participatio: The Journal of the Thomas F. Torrance Theological Fellowship* 1 (2009), 66-81, 70-75; A.E. McGrath, *A Scientific Theology: Volume 2: Reality*, Edinburgh: T&T Clark, 2002, 257-268; Colyer, *How to Read*, 2001, 129-132, 192-199; F.D. Schubert, 'Thomas F. Torrance: The Case for Theological Science', *Encounter* 45.2 (1983), 123-137, 125-126; R. Spjuth, *Creation, Contingence and Divine Presence in the Theologies of Thomas F. Torrance and Eberhard Jüngel*, Lund: Lund University Press, 1995, 85-87.

¹⁰¹ R. Holder, 'Thomas F. Torrance: "Retreat to Commitment" or a New Place for Natural Theology?', *Theology and Science* 7.3 (2009), 275-296, 280-287; Molnar, *Theologian*, 93-99; P. Molnar 'Natural Theology Revisited: A Comparison of T.F. Torrance and Karl Barth', *Zeitschrift für Dialektische Theologie* 21.1 (2005), 53-83; Barr, *Biblical Faith and Natural Theology*, 13n18; K.P. Seng, 'The Epistemological Significance of the Ὁμολογίον in the Theology of Thomas F. Torrance', *Scottish Journal of Theology* 45.3 (1992), 341-366, 351-355; Henry, *God, Revelation and Authority, Volume 3: God who Speaks and Shows: Fifteen Thesis, Part Two*, Waco: Word Books, 1976, 216-218.

¹⁰² T. McMaken, 'The Impossibility of Natural Knowledge of God in T.F. Torrance's Reformulated Natural Theology', *International Journal of Systematic Theology* 12.3 (2010), 319-340, 322-323; S. Murtha-Smith, 'The Advancement of New Theology Using Science: The Three Key Concepts of Thomas Torrance', *The Journal of Faith and Science Exchange* 1 (1997), 65-71, 68-70; Spjuth, *Creation*, 86-87; C. Weightman, *Theology in a Polanyian Universe: The Theology of Thomas Torrance*, New York: Peter Lang, 1994, 163-166; W.H. Wong, 'An Appraisal of the Interpretation of Einsteinian Physics in T.F. Torrance's Scientific Theology', PhD, The University of Aberdeen, 1994, 63, 188-189; R. Newell, 'Participatory Knowledge: Theology as Art and Science in C.S. Lewis and T.F. Torrance', PhD, University of Aberdeen, 1983, 121-127.

on NT, ignoring its broader impact; (ii) the second position has estimated better that Torrance's NT functions as a human rational structure, but has misinterpreted what this means; and (iii) the third position identifies more closely the methodological issues at stake in Torrance's version of NT, but these discussions have not been fully developed or integrated with his broader epistemological convictions.

6.1. Theology of Nature and the Dialogue between Theology and the Natural Sciences

Most interpreters understand Torrance's NT as a theology of nature and understand its relevance to pertain to the interface between theology and the natural sciences. A theology of nature refers to an understanding of creation that is determined by revelation. This theme includes the view that Torrance rejected an autonomous NT in which some knowledge of God can be reached independent of revelation, via the data and the capacities of the created order alone. In place of an autonomous NT, exponents of this theme argue that Torrance placed his new NT as a derivative discipline to God's self-revelation, and, in so doing, developed an understanding of nature from that which is made known by revelation.

6.1.1. Elmer Colyer

Colyer's analysis of Torrance's NT is located as a division within his exposition of Torrance's doctrine of creation,¹⁰³ and follows immediately after his discussion of the complementarity between theological and natural science.¹⁰⁴ The location of Colyer's discussion of NT in Torrance's thought is significant. For Colyer, Torrance's 'reformulation' of NT is intimately bound to the doctrine of creation, and falls within the

¹⁰³ Colyer, *How to Read*, 156-207.

¹⁰⁴ Colyer, *How to Read*, 182-192.

complementarity that obtains between theology and the natural sciences. According to Colyer, there is a relationship between the design of the universe and its disclosure through the natural sciences, and God the Creator made known through revelation.¹⁰⁵ The point of Torrance's NT, according to Colyer, is to articulate the way creation refers beyond itself to God as creation's sufficient reason.¹⁰⁶

From revealed theology we derive an understanding of the created universe as contingent upon the creative will of God and endowed with its own intelligible order such that creation is not self-sufficient but is dependent upon the will of God for it.¹⁰⁷ Correspondingly, the natural sciences inquire into the internal rational order of the universe and it is found that the intelligibility of creation is not self-sufficient. Questions, therefore, are posed concerning the provenance of the ordered universe.¹⁰⁸ Significantly, however, questions of a sufficient reason for the universe are not answerable within the parameters of the natural sciences, but the 'referential character' of the universe is recognized,¹⁰⁹ and the natural level of knowledge suggests that there is an active agent who has structured and upholds the order of the universe.¹¹⁰

Colyer argues that the significance of the natural sciences to Torrance is that the natural sciences in the twentieth century are said to have undermined two dualisms: (i) between God and creation and (ii) between the subject and the object in which the subject regulates experience in accordance with a pre-determined rational schema. He contends that these obscure the internal order of created reality in its reference to its sufficient reason.¹¹¹ It is precisely these dualisms that are at work in the formulations of NT that

¹⁰⁵ Colyer, *How to Read*, 200.

¹⁰⁶ Colyer, *How to Read*, 200.

¹⁰⁷ Colyer, *How to Read*, 156-174.

¹⁰⁸ Colyer, *How to Read*, 201.

¹⁰⁹ Colyer, *How to Read*, 202.

¹¹⁰ Colyer, *How to Read*, 202.

¹¹¹ Colyer, *How to Read*, 203.

Torrance rejected for he argued that they led to a logical bridge between creation and God by regulating the experience of the natural world in accordance with a rational schema of humanity's design on account of the disjunction between God and creation.¹¹² According to Colyer, developments in the natural sciences have undermined these dualisms: the view of the universe as a closed, mechanical system shut off from God's interaction have been replaced with views of the universe's openness to higher forms of intelligibility. As such, the epistemological dualism between the subject and the object has been replaced by the subject as the rational agent uncovering the rational form inherent in the universe.¹¹³

In this the natural sciences are able to uncover the contingent intelligibility of the universe as it 'cries silently' for its sufficient reason.¹¹⁴ By this, Colyer understands Torrance to have referred to the relation between God and creation which is not one of logical necessity, but rather is an unformalizable relation contingent upon God's decision to create. Consequently, there is no necessary relation between God and creation, which is able to be formalized in a chain of inferential reasoning between creation and God as Creator, yet there is still a connection established by the will of God and in the dependence of creation.¹¹⁵

For this reason, the knowledge of God from creation alone is not sufficient but must always be held in relation to revealed theology.¹¹⁶ Therefore, the main differences that Colyer sees between Torrance's NT and the traditional NT which Torrance rejected is the overcoming of dualisms associated with a new approach to NT which does not attempt to establish a logical connection between God and creation aside from revelation.

¹¹² Colyer, *How to Read*, 194-196.

¹¹³ Colyer, *How to Read*, 204.

¹¹⁴ Colyer, *How to Read*, 204.

¹¹⁵ Colyer, *How to Read*, 204, 205n229.

¹¹⁶ Colyer, *How to Read*, 205-206.

For Colyer, then, Torrance's NT is more properly termed a theology of nature determined by revelation,¹¹⁷ answering the questions posed from the natural sciences concerning the provenance of the intelligibility of the universe.¹¹⁸

Colyer expressly recognizes that he has excluded significant aspects of Torrance's discussion.¹¹⁹ In so doing, he has focused on just the cosmological element of Torrance's NT, and prioritized it as though it were the single focus of Torrance's approach. As a function of this, Colyer does not factor the intellectual context of Torrance's NT into his considerations, and, therefore, has nothing to say on Torrance's proposal that NT be treated as the rational intra-structure of theology. While Colyer's analysis may be internally valid, it does not touch the hard methodological matters of theological science as the synthesis of NT as rational structure and God's self-revelation as material content.

6.1.2. Myk Habets

Habets describes Torrance's reconstructed NT as a complex and poorly delineated nexus of components, including natural revelation, NT, and a theology of nature. Habets attributes this lack of clarity to a level of ambiguity in Torrance's work.¹²⁰ Formally speaking, Habets is correct. Torrance's work on NT is not very clear owing to poor internal delineation of its core components. With respect to a frame of reference that is limited to Torrance's recasting of the cosmological argument, Habets is correct in isolating the elements he identifies as being poorly differentiated. However, Habets' frame of reference only pertains to Torrance's versions of the classical loci of NT. There is a more far-reaching failure in Torrance's argumentation: Torrance did not clearly

¹¹⁷ Colyer, *How to Read*, 194n187. See also C. Gunton, *A Brief Theology of Revelation: the 1993 Warfield Lectures*, Edinburgh: T&T Clark, 1995, 63; K.A. Miller, 'Participation in the Knowledge of God: An Engagement in the Trinitarian Epistemology of T.F. Torrance', PhD, The University of Durham, 2013, 81-85.

¹¹⁸ Colyer, *How to Read*, 207. See also, Gill, 'Revelation', 107-154, 198-213.

¹¹⁹ Colyer, *How to Read*, 201.

¹²⁰ Habets, *Transposition*, 91-92.

differentiate between the proper relation of rational structure and material content at work within the frame of reference of his re-working of the cosmological argument, and the proper relation of the same within a broader frame of reference regarding the composite structure of theological science. So, while Habets rightly recognizes that Torrance's approach to NT sets out to challenge the traditional understanding of NT as the demonstration or defence of the existence of God through references to reason or to the natural order that are acceptable to anyone aside from revelation,¹²¹ he is unable to rightly assess the significance of this in relation to the broader synthesis of rational structure and material content in Torrance's thought.

However, with respect to Torrance's attempt to establish the proper relation between NT and revealed theology within the frame of reference of the traditional argumentative posture of NT, Habets' analysis is sound. Habets notes that the distinctive element of the Reformed attitude to NT is that NT takes a 'subordinated role to divine revelation',¹²² and that this is the key element of Torrance's thought also.¹²³ In this way, Habets draws out the correlation between Torrance and Calvin in establishing NT within the parameters of revealed theology.¹²⁴ Habets notes that Torrance's NT is not a *preambula fidei*, but actually follows after revealed theology such that when our understanding of nature is illumined by God's self-revelation (a theology of nature) its reference to God can be comprehended (natural revelation),¹²⁵ which may be drawn out by an inquiry into the natural world, which may subsequently be used by the theologian to better understand the reference of creation to God (natural theology).

¹²¹ Habets, *Transposition*, 68.

¹²² Habets, *Transposition*, 72.

¹²³ Habets, *Transposition*, 73-74.

¹²⁴ Habets, *Transposition*, 79-82.

¹²⁵ Habets, *Transposition*, 80.

The interconnection of the discrete elements in Torrance's thought is demonstrated by Habets' description of Torrance's NT as a point of productive interface between theology and the natural sciences.¹²⁶ NT, Habets contends, should be germane both to theological science and to natural science, as both must do their work in the contingent intelligibility of this universe. The theologian takes a basic orientation towards the natural world from God's revelation, such as its intelligibility and its contingency (theology of nature), and the scientist acts as the 'priest of creation' uncovering creation's contingent rationality (natural revelation), while the theologian can draw upon the work of the natural scientist and use it to refer to the transcendent reference of creation to its Creator, taking the role of a 'further illumination of God after God's self-revelation through the incarnation' (natural theology).¹²⁷

In this way, Habets rightly sees that Torrance was attempting to do more than establish a theology of nature. While it is the case that revealed theology must precede NT, revealed theology allows the subsequent study of nature to disclose some reference to God by which some subsidiary knowledge of God is possible.¹²⁸ According to Habets, the only way in which this can make sense is if there is some apologetic value to Torrance's proposals for NT as the effort of furnishing revelation with proof.¹²⁹ In this connection, Habets argues that most of what Torrance calls his NT is in fact a theology of nature, but that this theology of nature may be held in relation to the work of the natural sciences to posit a limited natural theology 'to remove grounds for doubt'.¹³⁰

Habets' attribution of apologetic value to Torrance's NT is where the weakness in his interpretation is demonstrated. Habets attributes to Torrance a function of NT that is

¹²⁶ Habets, *Transposition*, 67.

¹²⁷ Habets, *Transposition*, 83, 92.

¹²⁸ Habets, *Transposition*, 88-90.

¹²⁹ Habets, *Transposition*, 90.

¹³⁰ Habets, *Transposition*, 92.

used to validate in some way revealed theology. Torrance's strongest criticism of NT of an autonomous sort was that it subjected revealed theology to an external rational framework through which it was interpreted. Habets' analysis ignores the broader sense in which Torrance sought to hold together revealed theology and NT. For example, he does not offer a full analysis of what it means for Torrance to establish the relationship of NT and revealed theology in an analogous relation to practical geometry and physics, completely missing Torrance's important comment that the synthesis of NT as rational structure and revealed theology as material content constitutes theological science.

6.1.3. Alister McGrath

McGrath considers Torrance's NT to belong to the interface between theology and the natural sciences. Importantly, McGrath is aware of the paradox contained within this interface, particularly in view of Torrance's strong affinities with Barth's prioritization of God's self-revelation: to concentrate on the natural sciences seems contrary to the sole focus on the knowledge of God through his self-revelation, and could even be the basis of a reduction of revelation to nature.¹³¹ In this connection, McGrath argues that Torrance has articulated a version of NT that is consistent with his Reformed and Barthian heritage, which is of considerable merit for dialogue between theology and natural science.¹³²

McGrath argues that Torrance's NT functions as the subordinate partner to the knowledge of God through his self-revelation in Jesus.¹³³ McGrath understands Torrance's reconstructed NT to be a theology of nature (a "seeing" of nature in a

¹³¹ McGrath, *Intellectual*, 175.

¹³² McGrath, *Intellectual*, 175-176.

¹³³ A.E. McGrath, *A Scientific Theology: Volume 1: Nature*, Edinburgh: T&T Clark, 2001, 283-6; 'Viable', 75.

specifically Christian manner'¹³⁴). From this basis, McGrath argues that 'Torrance insists that creation can only be held to "reveal" God from the standpoint of faith', with the meaning of the term 'reveal' identified as the potential to 'point to its creator'.¹³⁵ In this connection, McGrath identifies Torrance's notion of the contingency of creation as an important aspect of Torrance's work on NT.¹³⁶ As created from nothing, creation requires a sufficient reason beyond itself. However, this contingent order may be gainfully pursued and understood through the lens of the Christian doctrine of creation.¹³⁷ In this way, McGrath contends that Torrance has brought about the opportunity for profound engagement between theology and the natural sciences.¹³⁸ The natural scientist may inquire into creation, but it is only from the understanding of creation provided by revealed theology that creation's reference beyond itself to its sufficient reason in the creative will of God will be observed.¹³⁹

The crucial element of McGrath's reading is the concept of order common to both theology and the natural sciences.¹⁴⁰ To Torrance, the order of creation, upon which the reasoning of natural science depends, is contingent upon the creative activity of God.¹⁴¹ In this way, interface is established between theology and the natural sciences for they share the same 'ultimate foundations in the rationality of God the creator'.¹⁴² It is this common affinity to antecedent order which gives theology and the natural science an

¹³⁴ McGrath, 'Torrance and the Search for a Viable Natural Theology', 77; *Intellectual*, 188-189, 219.

¹³⁵ McGrath, *A Scientific Theology*, 1.283-284; *Intellectual*, 188.

¹³⁶ McGrath, *Intellectual*, 191-192.

¹³⁷ McGrath, *Intellectual*, 223. Achtner argues that modern science has discovered much about the order of reality, which can be usefully integrated with a Christologically determined doctrine of creation. W. Achtner, *Physik, Mystik und Christentum. Eine Darstellung und Diskussion der natürlichen Theologie bei T.F. Torrance*, Frankfurt: Lang, 1991. Cited from T. Luoma, *Incarnation and Physics: Natural Science in the Theology of Thomas F. Torrance*, Oxford: Oxford University Press, 2002, 35n45, 38n62.

¹³⁸ McGrath, 'Torrance and the Search for a Viable Natural Theology', 73; *Scientific Theology*, 1.284; *Scientific Theology*, 2.55-118; *Intellectual*, 192.

¹³⁹ McGrath, *Intellectual*, 192.

¹⁴⁰ McGrath, *Intellectual*, 220-228.

¹⁴¹ McGrath, *Scientific Theology*, 2.78-82; *Intellectual*, 220-228.

¹⁴² McGrath, *Intellectual*, 192.

affinity in the *a posteriori* nature of knowledge.¹⁴³ McGrath argues that, in this way, theology gives to the natural sciences a presupposition regarding the orderliness of the universe, upon which it depends, indicating a point of important confluence between theology and the natural sciences.¹⁴⁴

Pertaining to Torrance's position in relation to his Reformed heritage, McGrath argues that Torrance articulated a version of NT that is consistent with the position of John Calvin concerning the affirmation of knowledge of God through the natural world, but not in autonomy from God's revelation through Jesus Christ. However, McGrath also considers that Torrance's position absorbs Barth's critique of NT in a way that accommodates the fundamental problem of autonomy by subordinating NT to revealed theology, thereby incorporating NT as an 'integral part of the overall project of theology'.¹⁴⁵ However, McGrath does not finally identify the relation between the subordination of NT to revealed theology as something integral to the project of theology and Torrance's view that the synthesis of NT as rational structure and revealed theology as material content constitutes theological science. McGrath's attention falls on the potential of creation to point to its Creator from the preliminary standpoint of faith and special revelation,¹⁴⁶ and the implications of this for facilitating inter-disciplinary dialogue between theology and the natural sciences.

6.1.4. Travis McMaken

Unlike those interpreters considered so far, McMaken argues that Torrance's NT 'rejects with no exception' the possibility of natural knowledge of God.¹⁴⁷ In this connection,

¹⁴³ McGrath, *Intellectual*, 222, 224.

¹⁴⁴ McGrath, *Intellectual*, 222-223.

¹⁴⁵ McGrath, *Intellectual*, 187.

¹⁴⁶ McGrath, *Intellectual*, 192.

¹⁴⁷ McMaken, 'Impossibility', 319-320.

McMaken argues that Torrance's NT is to be differentiated sharply from traditional NT, and he explicates Torrance's NT from Torrance's epistemology. In many ways, McMaken's line of approach is deeply promising. Charting Torrance's basic *a posteriori* attitude to knowledge, McMaken emphasizes that, for Torrance, to know is to conform one's mind to the object known, which implies a repudiation of one universal method of knowing imposed upon different aspects of reality.¹⁴⁸ Theology, therefore, is identified as the special science in which our minds are conformed to the actuality of the knowledge of God in his self-revelation through Jesus Christ.¹⁴⁹ McMaken moves his analysis onto Torrance's attitude to the possibility of natural knowledge of God, having noted that for Torrance scientific adequacy in theology means to know God as he has given himself to be known through Jesus Christ. Therefore, on the grounds of scientific adequacy, McMaken demonstrates that Torrance unequivocally rejects NT and establishes the knowledge of God only on the basis of Jesus Christ.¹⁵⁰

From this basis, McMaken demonstrates how Torrance attempted to reformulate NT set on the foundation that there is no knowledge of God outside of his self-revelation.¹⁵¹ The new locus within which Torrance reformulated NT, McMaken argues, is in the overlap between theological and natural science. Noting the mutual counter-influence that Torrance contended theology and the natural sciences have had at different levels of interface (material, methodological and historical), McMaken isolates theology's 'unique function at the boundaries of natural science' through its assertion of the contingent intelligibility of the universe.¹⁵² Contingent intelligibility provides natural science with its fundamental presupposition in the basic intelligibility of the universe, and

¹⁴⁸ McMaken, 'Impossibility', 320-323

¹⁴⁹ McMaken, 'Impossibility', 324.

¹⁵⁰ McMaken, 'Impossibility', 326-328.

¹⁵¹ McMaken, 'Impossibility', 329-330.

¹⁵² McMaken, 'Impossibility', 333.

yet posits that this intelligible order is not finally self-sufficient but refers in a non-logical way to its sufficient reason.¹⁵³ As such, while the universe cannot give us knowledge of God aside from revelation, when the universe is understood in relation to God's self-revelation as Creator, the more that is known about the universe through advances in the natural sciences can bring about 'increased clarity in our knowledge of God'.¹⁵⁴

McMaken understands Torrance's NT to be a reformulation of NT as a theology of nature which provides the basis of valuable inter-disciplinary dialogue between theology and the natural sciences. McMaken describes this as a missionary activity to the natural sciences,¹⁵⁵ which is utterly plausible given Torrance's view of his work.¹⁵⁶ However, McMaken makes clear that this does not make Torrance's NT an autonomous foundation for a reduced natural knowledge of God, for 'knowing God on the basis of God's self-revelation predicates, but is in no way predicated upon, this reformulated natural theology'.¹⁵⁷

McMaken also considers the important question of Torrance's relation to Barth, and argues for the basic compatibility of Torrance's NT and Barth's position.¹⁵⁸ In this, McMaken touches upon the crucial issue of the status of the human knower which is implied by Torrance's NT, but does not develop it satisfactorily. McMaken rightly points to the emphasis Torrance's NT puts on the fact that it is we humans who are knowing God, and thus it has to do with 'entirely human knowledge of God'.¹⁵⁹ McMaken does not think that Torrance has achieved this in such a way that separates God as the

¹⁵³ McMaken, 'Impossibility', 333-334.

¹⁵⁴ McMaken, 'Impossibility', 335.

¹⁵⁵ McMaken, 'Impossibility', 335.

¹⁵⁶ Torrance, 'Thomas Torrance Responds', 304.

¹⁵⁷ McMaken, 'Impossibility', 338.

¹⁵⁸ McMaken, 'Impossibility', 337ff.

¹⁵⁹ McMaken, 'Impossibility', 339.

objective foundation of our knowledge and humanity as the subjective foundation,¹⁶⁰ for the primary human knowing of God is Jesus' knowledge of God in whom we participate by the work of the Holy Spirit.¹⁶¹ In this, McMaken sees complete correspondence between Barth and Torrance.¹⁶²

McMaken's analysis contains trajectories that are of considerable merit for future inquiries into Torrance's NT. However, McMaken does not fully capitalize on the very promising perspectives he has uncovered.

First, McMaken has clearly differentiated between Torrance's NT and all other formulations of NT, and he does so within a frame of reference limited to a theology of nature. However, McMaken has not established the fully distinctive character of Torrance's NT as the rational intra-structure of theological science. McMaken's analysis is limited to Torrance's theology of nature, and does not extend this to the far broader concern of the actual rational structure of our understanding shaped by God's self-revelation.

Second, McMaken is right to approach Torrance's NT from his epistemology, and he is right to identify that a key issue in Torrance's NT is the protection of the integrity of the place of humanity as the knowers of God. However, McMaken has not successfully united these key insights. In some ways this is not his fault, as Torrance did not satisfactorily unite them, either. However, McMaken's problems begin with his unnuanced assessment of *kata physin* knowledge. McMaken does not comment on the important element of the epistemic subject in Torrance's account of objectivity, and for

¹⁶⁰ See Molnar, 'Revisited', 82-83.

¹⁶¹ McMaken, 'Impossibility', 339.

¹⁶² T.F. Torrance, *The Trinitarian Faith: The Evangelical Theology of the Ancient Catholic Church*, Edinburgh: T&T Clark, 1988, 55; K. Barth, *Church Dogmatics: Volume II: The Doctrine of God. First Half-Volume*, eds. G.W. Bromiley and T.F. Torrance, trans. T.H.L. Parker, W.B. Johnston, H. Knight and J.L.M. Haire, Edinburgh: T&T Clark, 1957., 157-158.

this reason he is not able to establish this important point of connection to Torrance's notion of NT as the human rational intra-structure of theology. This connection is particularly pertinent considering the implications of Torrance's Christology for the necessity of maintaining the integrity of the human involvement in theology.

Third, McMaken is right to note that in identifying NT as truly human knowing of God, Torrance has not established humanity as partly responsible for the development of theological knowledge in a form of epistemological semi-Pelagianism. For Torrance, there is a primary focus on the actualisation of God's self-knowledge in our humanity by the incarnate Son, and our participation in that through the Spirit as the Spirit actualizes in our heart his own eternal bond to the Son. However, McMaken does not establish this insight on its foundational theological girders, leaving it somewhat vulnerable. The validity of creaturely objectivity in the knowledge of God must be established on God's twofold objectivity and the associated doctrine of the hypostatic union.

6.2. The Basis of Autonomous Natural Theology

Some question whether Torrance's NT is consistent with his broader theology and epistemology, arguing that it sets the basis for a renewal of an autonomous NT that is inconsistent with his broader dogmatic commitments.

6.2.1. Paul Molnar

Molnar considers Torrance's proposals for NT to be inherently ambiguous. On the one hand, Molnar argues, Torrance rejected NT's independence from revelation, and on the other hand, Torrance's work on NT includes an affirmation of some attenuated knowledge of God through the natural world evidenced by Torrance's concession that NT can be temporarily and artificially abstracted from revelation for purposes of

clarification.¹⁶³ So far as Molnar is concerned, Torrance cannot have it both ways; Torrance cannot insist upon the necessary integration of NT with revealed theology and also state that creation's contingent intelligibility points towards its Creator which can be bracketed off and some abstract notion of God derived from it.¹⁶⁴ The former, Molnar suggests, would not really be NT at all, but a theology of nature and the latter would be NT, but a formulation of NT that is inconsistent with Torrance's broader theological approach.¹⁶⁵

Crucially, Molnar suggests, the reason for Torrance's readiness to accommodate something approaching a cosmological approach to NT is his eagerness to develop the possibilities for positive interface between theology and the natural sciences.¹⁶⁶ It is for this reason that Molnar recommends that Torrance's NT be separated from his broader dogmatics and associated only with Torrance's attempt to set Christian theology in dialogue with the natural sciences.¹⁶⁷ In Molnar's opinion, Torrance's theology centres on the view that the knowledge of God is a function of God's self-revelation through the Son by the Spirit, which negates any approach to the knowledge of God that is aside from revelation. As such, Molnar argues that while Torrance's intention in his NT was to describe a theology of nature, his enthusiasm to establish points of contact between theology and the natural sciences (particularly on the use of a common conceptuality and a common ultimate source of intelligibility in the *Logos* of God¹⁶⁸) has led to residual elements of an autonomous NT taking root in Torrance's work on NT.¹⁶⁹ Molnar's solution is to quarantine Torrance's NT in the dialogue between theology and the natural sciences, so to not allow it to bleed through into Torrance's theological method.

¹⁶³ Molnar, 'Revisited', 76.

¹⁶⁴ Molnar, 'Revisited', 79.

¹⁶⁵ Molnar, 'Revisited', 79.

¹⁶⁶ Molnar, 'Revisited', 80.

¹⁶⁷ Molnar, *Theologian*, 93.

¹⁶⁸ Molnar, 'Revisited', 55-56, 59.

¹⁶⁹ Molnar, *Theologian*, 95, 329.

That is not to say that Molnar considered Torrance to have articulated a form of NT that functions by logical inference from the phenomena of creation to a doctrine of God. Molnar recognizes Torrance's repeated insistence that there is no logical bridge between God and creation on the grounds that God and creation are not in a necessary relation.¹⁷⁰ Moreover, Molnar recognizes that while Torrance's NT demonstrates openness to philosophical analysis, it is not an openness to philosophical analysis functioning as an independent logical structure upon which positive theology is built.¹⁷¹ In this connection, Molnar understands Torrance to cohere with Barth in a rejection of autonomous NT on the grounds of the actual self-revelation of God. Scientific adequacy demands that we allow the object to determine our way of knowing it, and therefore, the actuality of God's self-revelation requires purity of focus on that self-revelation.¹⁷² Moreover, Molnar notes that Torrance's interpretation of Barth on this point centres on the issue of autonomy; that it was not NT itself that Barth objected to, but its deployment in autonomy from God's self-revelation.¹⁷³

However, Molnar poses the question: if NT is the attempt to know God through reason aside from revelation, and Torrance has already confirmed his agreement with Barth that revelation negates such approaches to the knowledge of God (and that Torrance's transformed NT does not attempt to do so) then why call it NT at all? If Torrance sought only to develop an understanding of nature that is directed by revelation, then this would be more accurately termed a theology of nature.¹⁷⁴ The reason, Molnar suggests, is that Torrance attempted to offer an account of the relation between humanity and the grace of God in his self-revelation that does not obviate the place of the

¹⁷⁰ Molnar, 'Revisited', 58.

¹⁷¹ Molnar, 'Revisited', 57.

¹⁷² Molnar, 'Revisited', 60.

¹⁷³ Molnar, 'Revisited', 61; *Theologian*, 94-95.

¹⁷⁴ Molnar, 'Revisited', 71-72.

creature.¹⁷⁵ In this Molnar is correct. Torrance's NT is an attempt to protect the integrity of the human involvement in theological knowing. However, Molnar understands Torrance to have attempted this through validating a NT isolated from revelation. There are two elements of Torrance's argumentation that cause Molnar to think this way.

First, Molnar attributes to Torrance a view affirming the possibility of some attenuated knowledge of God aside from revelation. The natural knowledge of God in view is an abstract knowledge of God from the natural world that is the essential creaturely correlate to actual theology. One major indication of this, Molnar suggests, is Torrance's affirmation of the possibility that NT might terminate on some being of God in general (as opposed to positive knowledge of God as Trinity).¹⁷⁶

Second, Molnar is concerned by Torrance's suggestion that NT can be artificially and temporarily separated from revealed theology in its focus on the contingent intelligibility of creation which can actually achieve some limited and unsatisfactory knowledge of God which must be integrated with revealed theology.¹⁷⁷ So far as Molnar is concerned, this demonstrates Torrance to be inconsistent with his own method, establishing a limited knowledge of God by methodologically isolating NT apart from revelation, so to provide a context to explore the common ground between theology and the natural sciences.¹⁷⁸ The problem with this, Molnar continues, is that the idea that we can study our creaturely understanding of God in abstraction from the grace of God 'is an attempt to grasp and control God'.¹⁷⁹

These elements, Molnar argues, demonstrate Torrance's position to be inconsistent not only (i) with Barth's insistence that natural knowledge of God is an

¹⁷⁵ Molnar, 'Revisited', 72.

¹⁷⁶ Molnar, 'Revisited', 76; *Theologian*, 97.

¹⁷⁷ Molnar, 'Revisited', 76.

¹⁷⁸ Molnar, 'Revisited', 76.

¹⁷⁹ Molnar, 'Revisited', 77.

expression of autonomy and so the enemy of grace¹⁸⁰ (compromising theology wholly based on God's self-revelation¹⁸¹), but also (ii) with Torrance's own project of theological science in which Torrance insisted that theological knowing must be determined by its object and therefore unthinkable aside from union with Christ by the Spirit, for Jesus is the true human knower of God.¹⁸² Molnar argues that the reason Torrance has developed Barth's rejection of NT to this point of proposed discontinuity with Barth and to a fundamental inconsistency with guiding principles of his own theological approach is because of Torrance's desire to assert the fundamental complementarity between natural and supernatural modes of reasoning as both have a common source in the infinite rationality of God revealed in creaturely objectivity upon which Torrance established the interface between theology and the natural sciences.¹⁸³ It is for this reason that Molnar suggests that Torrance's NT has no correlation to Torrance's positive dogmatics, and should be separated from his broader theological approach as an aberration provoked by extra-theological pressure to account for the coordination between theology and the natural sciences.¹⁸⁴

Molnar's insightful, but flawed, analysis is tied to his understanding of Torrance's complex relation to Jesuit theologian Henri Bouillard, which Molnar believes dragged Torrance into disagreement with Barth on the issue of NT. Molnar's concern is that Bouillard has influenced Torrance in establishing NT as a necessary correlate to revealed theology, which Molnar believes compromises the purity of Barth's position that the only necessary condition for the knowledge of God is the self-revelation of God through the

¹⁸⁰ Molnar, 'Revisited', 77-78.

¹⁸¹ Molnar, 'Revisited', 79.

¹⁸² Molnar, 'Revisited', 76.

¹⁸³ Molnar, 'Revisited', 80.

¹⁸⁴ Molnar, *Theologian*, 93.

Son by the Spirit.¹⁸⁵ Moreover, Torrance's position, Molnar continues, does not recognize the applicability of the problem of sin to the task of NT, through which humanity are not partners in the knowledge of God by revelation, but the enemies of grace through whom NT will always be the attempt to control and coerce revelation.¹⁸⁶

Molnar has not properly appreciated the force of Torrance's rejection of autonomous NT on the basis of sin.¹⁸⁷ Also, Molnar does not appreciate the degree to which Torrance has adapted Bouillard's terminology in connection with Torrance's own distinct epistemological agenda in reversing the relation between rational structure and material content that is found in some forms of autonomous NT. When Torrance's use of Bouillard's terminology is understood in its intellectual context then the divergence between Torrance and Bouillard can be appreciated and Torrance's fundamental continuity with Barth's rejection of NT can be properly appreciated.¹⁸⁸

According to Molnar, Torrance has drawn on Bouillard to explain how NT is the necessary correlate to revealed theology so to preserve the place of the creaturely rationality in theology with the intent of establishing a point of interface between theology and the natural sciences. In my view, this view misses the vital intra-theological agenda that Torrance pursued. Torrance was attempting to account for the creaturely objectivity in our theological systems that are demanded by the nature of God's self-revelation through Jesus as God and human. Molnar has not reckoned with the significance of Christology for Torrance's account of logical formalization in theology. Specifically, Molnar has not appreciated the significance of *anhypostasia* and *enhyposstasia* through which, in parallel to the status of the human nature in the hypostatic

¹⁸⁵ Molnar, 'Revisited', 75.

¹⁸⁶ Molnar, 'Revisited', 77, 81-82.

¹⁸⁷ See below, 247-250.

¹⁸⁸ See below, 241-243, 297-301.

union, Torrance developed his account of the role of human reason in theology as both wholly dependent upon God's gracious revelation, but yet with complete integrity of its own *within* God's self-revelation.¹⁸⁹ When seen in this connection, Torrance was not recommending that NT be considered the correlate to revealed theology in the sense of an attenuated knowledge of God possible from the parameters of nature alone that served as the necessary correlate for revealed theology. Instead, Torrance argued that NT be considered the actual human rational structure of theological knowledge that is shaped by the actual structure of God's self-revelation in just the same way that the rational structure of knowledge is determined by the material content in the synthesis of the logic of systematic form and the logic of empirical form. For this reason, while Molnar has seen the crucial issue in Torrance's work on NT, he has misinterpreted it. Torrance's NT is certainly about maintaining the integrity of human involvement in theological knowledge, but not on the terms that Molnar has assumed. Instead, it is on terms that converge with the Christological foundations of Torrance's theology. As such, Molnar's attempt to separate Torrance's NT from the rest of Torrance's theology as an excess caused by the desire to establish points of contact between theology and the natural sciences cannot be substantiated.

6.2.2. Rodney Holder

Holder explores Torrance's NT in the context of Torrance's wider engagement with the natural sciences. In this, Holder argues that Torrance's work on NT provides some 'opportunities for a more conventional kind of natural theology', which 'would restore rationality to his theological enterprise'.¹⁹⁰ This introduces a tension into Torrance's thought: how can he find a valid place for NT without compromising the centrality of

¹⁸⁹ See below, 308-311.

¹⁹⁰ R. Holder, *The Heavens Declare: Natural Theology and the Legacy of Karl Barth*, West Conshohocken: Templeton Press, 2012, 141.

Jesus?¹⁹¹ In Holder's estimation, the solution that Torrance provides 'opportunities for natural theology (in the sense of *preambulum fidei*)' to be re-built.¹⁹² So, while Holder recognizes that Torrance's NT includes a rejection of NT when developed independent from revelation, he argues that Torrance's NT (when held in connection to his view of the common source of the rationality of creation and the rationality of the human mind in the divine Logos) provides the foundation for NT as a valid division prior to revealed theology.¹⁹³

In developing this view, Holder argues that Torrance's concession that natural theology may assist in removing grounds for belief in God is equivalent to positive evidence for theistic belief. More problematically, Holder errs in his understanding of the analogy by which Torrance explained his reconstruction of NT. Holder claims that Torrance's analogy between the relationship of practical geometry and physics in the light of Einsteinian relativity and the relationship of NT and revealed theology should be understood as pertaining to a theology of nature.¹⁹⁴ That is to say, Holder understands this analogy to pertain to the bringing of NT within revealed theology in the sense of the development of a theology of nature. In this view, the analogy pertains to an understanding of nature determined by revelation (specifically, the doctrines of incarnation and resurrection) which grants us a relational model for understanding of space and time. An understanding of space in an Einsteinian relational model (as opposed to the volumetric conceptions of Aristotle and Newton) provides a plausibility structure

¹⁹¹ Holder, *The Heavens Declare*, 147.

¹⁹² Holder, *The Heavens Declare*, 149; "Retreat to Commitment", 281.

¹⁹³ Holder, *The Heavens Declare*, 149-150.

¹⁹⁴ Holder, *The Heavens Declare*, 151-152.

upon which God's actual interaction with space and time can be rationally accepted, and so act as the substructure upon which revealed theology can be built.¹⁹⁵

Also, Holder argues that a charge of irrationality may be laid against Torrance's thought. Torrance's understanding of the scientific character of theology is that theology does not accept the methodologies of other sciences, but seeks to reason in accordance with its own object. Therefore, it does not conform to a standard criterion for rationality other than suitability to its own particular object, and so cannot be verified or falsified by any universally applicable regulatory scheme.¹⁹⁶ In Holder's view, Torrance's proposals for NT when interpreted as providing the context for a preliminary NT acting as the rational basis for revealed theology 'would restore rationality to theology and make the claim that theology is "scientific" rather more plausible'.¹⁹⁷ By this, Holder means that some correspondence will be established between the conceptualities of theology and those of the natural sciences, because God's self-revelation takes place within creaturely reality and so an understanding of the created universe is integral to theology 'for evaluating whether what is claimed to be revelation is indeed revelation'.¹⁹⁸

While Holder is justified in his opinion in as much as Torrance did actually think that operating with a relational understanding of space and time is demanded by Christian theology,¹⁹⁹ he has misunderstood Torrance's analogy. Torrance did not intend this analogy to mean that NT should come within the parameters of revealed theology as a theology of nature, and so could not have intended that his analogy be developed to provide a preliminary substructure upon which to build positive knowledge of God.²⁰⁰

¹⁹⁵ Holder, *The Heavens Declare*, 153.

¹⁹⁶ Holder, *The Heavens Declare*, 155.

¹⁹⁷ Holder, *The Heavens Declare*, 156.

¹⁹⁸ Holder, *The Heavens Declare*, 157.

¹⁹⁹ Torrance, *STI*, 4, 14, 50, 56, 58.

²⁰⁰ See also, M.K. Ho, *A Critical Study on T.F. Torrance's Theology of Incarnation*, Bern: Peter Lang, 2008, 32—40.

Such an understanding is antithetical to Torrance's foundational contention that NT must not function as a preamble to faith. Instead, Torrance's analogy is one of proportional relations: the *structure of the relationship* between practical geometry and physics is in proportional correspondence to the *structure of the relationship* between NT and the material content of God's self-revelation.²⁰¹ However, this can only be seen once the hard work of establishing the proper intellectual context of Torrance's NT has been done. Torrance's analogy is not an example of natural theology used as a rational foundation for belief in revelation; instead it is intended to demonstrate that the rational structure of thought must be determined by the positive content. Moreover, Holder's proposal that Torrance's NT be considered a point of interface between theology and the natural sciences upon which claims to revelation can be verified in a trans-discipline way is utterly inconsistent with Torrance's thought. For Torrance, as with Barth before him, the actuality of the knowledge of God is prior to the possibility.

6.3. The Rational Intra-structure of Theology

Torrance's reconstruction of NT has also been understood as the rational intra-structure of theology. This is the line of inquiry that this thesis substantiates and develops. In the secondary literature to date there are intimations toward this way of understanding Torrance's reconstructed NT. The absence of any attempt to examine Torrance's NT in the context of the Torrance's synthesis of rational structure and material content, however, has meant this aspect of Torrance's NT has not been well understood and that important connections in Torrance's thought have not yet been capitalized upon.

²⁰¹ See below, 258-260.

6.3.1. John Morrison

Morrison argues that Torrance's NT is the reconstruction of NT within a Christocentric theological approach.²⁰² In this, Morrison notes that Torrance's project of theological science is consistent with Barth's commitment to the priority of 'the realist, objective knowledge of God in Jesus Christ',²⁰³ and that his work on NT is consistent within this theological vision.

Morrison notes that Torrance interpreted Barth as having rejected autonomous NT owing to the priority of Christology and the grace of God, but not rejecting NT absolutely.²⁰⁴ Instead, Morrison suggests that Torrance understood Barth to have rejected NT for its independence from revealed theology.²⁰⁵ On this basis, Morrison argues that Torrance's NT is built upon the Christological reasons that Barth rejected NT in the first place.²⁰⁶ In this, Morrison does not understand Torrance to be departing from Barth, but rather advancing Barth's thought along lines that Barth could have taken, but did not.²⁰⁷ In this connection, Morrison makes the important point that this reformulation of NT is based on God's self-revelation in Jesus, for it is this actualizing of God's revelation in creaturely objectivity that demonstrates creaturely objectivity and modes of reasoning to be not extraneous to the knowledge of God.²⁰⁸ However, creaturely objectivity is not to be held as an independent path to the knowledge of God.²⁰⁹ However, this does not quite get to the root of the matter that it is creaturely objectivity that is being included in the circle of the knowledge of God. There are important connections between Torrance's NT and the implications of the hypostatic union, which Morrison does not touch upon. Yet,

²⁰² J.D. Morrison, 'Thomas Torrance's Reformulation of Karl Barth's Christological Rejection of Natural Theology', *Evangelical Quarterly* 73.1 (2001), 59-75, 60-61.

²⁰³ Morrison, 'Reformulation', 60.

²⁰⁴ Morrison, 'Reformulation', 66.

²⁰⁵ Morrison, 'Reformulation', 70.

²⁰⁶ Morrison, 'Reformulation', 66.

²⁰⁷ Morrison, 'Reformulation', 66.

²⁰⁸ Morrison, 'Reformulation', 68.

²⁰⁹ Morrison, 'Reformulation', 68-69.

Morrison's argument does suggest that Torrance was not seeking to protect the autonomy of human rational structures, but rather their appropriate employment determined by God's self-revelation.²¹⁰

However, one element of Morrison's analysis suggests that he saw more in Torrance's NT than this (even if he did not satisfactorily delineate between the different elements). In a discussion of Torrance's analogy between practical geometry and physics and NT and revealed theology, Morrison notes that Torrance identified NT as the rational substructure of theological science.²¹¹ By this Morrison understands Torrance to have identified NT as the structure of our theological cognition which is compelled by God's self-revelation.²¹² In relation to practical geometry and physics, what is in view is the transformation of the character of geometry and NT from an 'axiomatic, deductivist science which is detached from actual knowledge of physical reality' to a NT that is determined by its material content.²¹³

However, Morrison does not develop this point and he does not connect this satisfactorily to other elements of his analysis of Torrance. Morrison interprets Torrance's epistemology to be characterized by the rejection of an *a priori* method, asserting instead that concepts take their coherence from the side of reality and attempt to expose that antecedent intelligibility.²¹⁴ However, Morrison does not correlate Torrance's Christological reformulation of NT in which the material content of knowledge determines our thoughts concerning it with this broader epistemological approach.

²¹⁰ Morrison, 'Reformulation' 70. See also Ford, 'Review of *RST*', 273-274; Spjuth, *Creation*, 84ff.

²¹¹ Morrison, 'Reformulation', 69-70.

²¹² Morrison, 'Reformulation', 70.

²¹³ Morrison, 'Reformulation', 71.

²¹⁴ Morrison, *Self-Revealing* 24-34; 'Torrance's Critique', 139-155; K.W. Lee, *Living in Union with Christ: The Practical Theology of T.F. Torrance*, Oxford: Peter Lang, 2003, 24.

6.3.2. Susan Murtha-Smith

Murtha-Smith argues that Torrance's NT is not extrinsic to the knowledge of God, but rather is that which 'can articulate the material logic of the knowledge of God'.²¹⁵ As God's self-revelation takes place in space and time, it can only be discerned within these creaturely parameters, and so Murtha-Smith argues that Torrance developed his NT to account for the powerful element of creaturely objectivity in theology.²¹⁶ Describing Torrance's NT as a "theological geometry" that can articulate the material logic of the knowledge of God',²¹⁷ Murtha-Smith argues that the rational structure of NT is finally determined by the inner rationality of God's self-revelation. Murtha-Smith is correct to note that such a vision for NT involves the rejection of *a priori* conceptualisation in favour of the imposition of coherence upon our concepts from the side of reality.²¹⁸ However, while Murtha-Smith's analysis is apposite, it is also very short and she is not able to develop this insight in any substantial way. Accordingly, more must be done to integrate Torrance's proposals for NT with his broader approach to cognition and to explain how this relates to his guiding theological principles in his Christology and his doctrine of God.

6.3.3. Wing-Hong Wong

Wong describes Torrance's NT as a 'sub-structure of systematic theology'.²¹⁹ By this, Wong means that Torrance sought to advance through and beyond Barth and 'build a natural theology as an inner structure of Christian theology'.²²⁰ Wong argues that Torrance rejected autonomous formulations of NT on account of the fact that they operate

²¹⁵ Murtha-Smith, 'New Theology', 69.

²¹⁶ Murtha-Smith, 'New Theology', 68-69.

²¹⁷ Murtha-Smith, 'New Theology', 69.

²¹⁸ Murtha-Smith, 'New Theology', 70.

²¹⁹ Wong, 'Appraisal', 68.

²²⁰ Wong, 'Appraisal', 76.

as antecedent rational frameworks that distort the interpretation of the positive content of God's self-revelation.²²¹ Accordingly, Wong suggests that Torrance's NT is the relocation of NT within the body of positive dogmatics, where it functions as the substructure of revealed theology.²²²

The parameters of Wong's study are set by his goal to offer an appraisal of Torrance's appropriation of Einstein's thought. As such, Wong's analysis of Torrance's NT as the epistemological substructure does not extend beyond his analysis of Torrance's analogy between the relationship of NT and God's self-revelation and practical geometry and physics. From this analogy, Wong notes that Torrance argued that when NT is brought to integration with revealed theology, its character changes, and it is no longer an independent substructure for revealed theology, but rather it will fall under the determination of the subject-matter of theology.²²³ Wong's treatment of this analogy is considered in greater detail below.²²⁴

6.3.4. Colin Weightman

Weightman contends that Torrance's NT is tightly bound to the influence of Michael Polanyi.²²⁵ In Weightman's view, Polanyi was instrumental to Torrance learning a way of knowing in which human reason does not impose structure upon phenomena, but rather intuitively encounters patterns in reality, subsequently bringing them to explicit, formal articulation in our own rational structures.²²⁶ Applied to NT, Weightman states the case at hand very clearly.

²²¹ Wong, 'Appraisal', 63-68.

²²² Wong, 'Appraisal', 68-70.

²²³ Wong, 'Appraisal', 178ff.

²²⁴ See below, 267-271.

²²⁵ Weightman, *Polanyian*, 144-145; 163.

²²⁶ Weightman, *Polanyian*, 218-219.

Natural theology of this kind strives for an appropriate rational structure embedded within and bound up with the actual content of the knowledge of God. It is under the compulsion of God's self-disclosure in Jesus Christ that the rational structure of our knowledge of God arises in our understanding. Put another way, natural theology has an epistemological structure which develops under the compulsion of its direct object.²²⁷

Weightman emphasizes that the role of NT is determined by God's self-revelation and so the rational structure of our knowledge of God follows the antecedent structure in God's self-revelation. As such, NT is the intra-structure of theological knowledge that is determined by the ontological structure of God's self-revelation.

In coming to this understanding of Torrance's NT, Weightman contends that Torrance's position is formed by his understanding of Polanyi. Crucially, this influence is seen, Weightman suggests, in Torrance's view that the insight into the inherent patterns of reality through intuition must be brought to conceptual expression with a corresponding rational structure.²²⁸ This is important, because, by this mechanism, Torrance was able to identify a way in which cognizable form was not imposed upon the object of knowledge by humanity, but rather arose naturally from the internal intelligibility of reality. In other words, Weightman argues that Polanyi provided Torrance with a way of knowing in which the natural integration of form and being in reality could be complemented by the integration of the theoretical and empirical elements of our knowing.²²⁹ As such, in Weightman's view, Torrance's understanding of Polanyi gave to Torrance the way to correlate rational structure of our knowledge and material content.²³⁰ Weightman also contends that Torrance's new version of the cosmological argument bears the marks of the influence of Polanyi through the stratified understanding of reality and the notion of marginal control.²³¹

²²⁷ Weightman, *Polanyian*, 163-164.

²²⁸ Weightman, *Polanyian*, 215-218.

²²⁹ Weightman, *Polanyian*, 218-219.

²³⁰ Weightman, *Polanyian*, 218-221, 235.

²³¹ Weightman, *Polanyian*, 243-245.

However, Weightman's identification of Torrance's approach to NT as a Polanyian NT is problematic. In the first instance, it presents Torrance as developing NT from an external rational system, which would be quite illegitimate with respect to his insistence that the methodology of theology as science be determined by its subject matter. Moreover, Weightman's understanding of Torrance's NT is correlated so closely to Torrance's interpretation of Michael Polanyi that integration with Torrance's wider theological approach is ignored. Despite the fact that Weightman contends that Torrance has misread Polanyi and imposed his own theological realism upon him,²³² Weightman's position does not maintain the independence of Torrance's position.

While I accept aspects of Weightman's interpretation, my understanding of the provenance of these ideas is very different. This thesis proposes that the Torrance's NT is the rational structure of theology under the determination of theology's proper object and that this is deeply connected to Torrance's theological convictions, particularly regarding the doctrine of the Trinity and the implications of Christology for the place of creaturely objectivity in theology. As such, the parallel to Polanyi is understood to be a helpful means of amplifying principles that Torrance developed from theology itself.

6.3.5. Roger Newell

Newell emphasizes the close connection between Torrance's NT and the fundamental principle that the interior order of reality must determine human conceptual structures. Newell argues that NT should be understood as the intra-structure of theological knowledge that is determined from beyond itself by the coherence inherent to God's self-revelation.

²³² Weightman, *Polanyian*, 275.

Importantly, Newell locates his discussion on NT in the context of his discussion of theology's scientific effort to be under the determination of the interior logic of its object.²³³ As such, the logical forms of theology must be derived from the Word of God, such that the systematic nature of theology is in relation to the interior logic of God, and not in relation to some abstract and independent conceptual system. It is in this way, Newell argues, that Torrance's NT functions as the epistemological structure of theology. This feature is drawn out through Newell's treatment of the analogy to practical geometry and physics, through which Newell prioritizes the issue of an independent conceptual system which is transposed into the positive knowledge of its object where it becomes the structure of our knowledge of that object.²³⁴ Despite the brevity of Newell's tangential analysis of Torrance's NT, Newell is treated here as one who pointed in the correct direction, but did not develop the inquiry.

²³³ Newell, 'Participatory Knowledge', 126-127.

²³⁴ Newell, 'Participatory Knowledge', 127.

PART ONE:

THE INTELLECTUAL CONTEXT

OF TORRANCE'S NATURAL THEOLOGY

Chapter 1

Reality

Torrance's synthesis of the rational structure of knowledge and material content of knowledge is established upon Torrance's understanding of reality. This chapter introduces Torrance's conception of reality that undergirds the synthesis of rational structure and material content,¹ which is being examined as the intellectual context of Torrance's NT. In what follows, it is contended that Torrance understood reality to have an intrinsic intelligibility, which determines the behaviour of phenomena such that the way something appears is the manifestation of what that thing is in itself and not mere representation with existence only in correlation to affected sensibility, waiting to be clothed with intelligible form by the cognitive activity of the knower.

The conception of reality that undergirds Torrance's synthesis of rational structure of knowledge and material content is composed of a nexus of interlocking ideas: (i) the actual existence of reality aside from the knower; (ii) the ontological status of truth such that reality is that which it is in its own truth of being; and (iii) the intimate relation between reality in itself and reality as it appears to the observer, the mechanism of which is the determination of phenomena by the truth of what that thing is in itself.

Importantly, Torrance's understanding of reality was established on theological foundations governed by God's self-revelation in Jesus Christ: (i) God's self-revelation as Creator determines Torrance's comprehension of created reality; (ii) God's self-

¹ T. Carr, 'The Rationality of the Cosmos: a Study of the T.F. Torrance and Dumitru Stăniloae', *Participatio: The Journal of the Thomas F. Torrance Theological Fellowship* 4 (2013), 240-257.

revelation as triune determines Torrance's doctrine of God. However, without eliding created reality and divine reality, Torrance's approach describes both divine reality and created reality as characterized by a correspondence between reality as it is in itself, and how it appears to the observer.

1.0. *Kataphysical* Knowledge and Realism

Reacting against the application of a universal method of cognition in knowledge,² Torrance operated with an understanding of knowledge in which it is the nature of reality that must determine our conceptualisation of it.³ To Torrance, knowledge is only authentic if both the method of inquiry and the conceptual representations are determined by the nature of reality.

You know something only in accordance with its nature, and you develop your knowledge of it as you allow its nature to prescribe for you the mode of rationality appropriate to it.⁴

Torrance described this way of thinking as *kataphysical* knowledge. *Kataphysical* is a compound term derived from the Greek words *kata* and *physin*, which Torrance took to mean 'according to nature'.⁵ Applied as a modifier to knowledge, this describes knowledge that is formed in accordance with the actual nature of the reality which is the object of inquiry:⁶ 'true knowing of something is to know it *kata physin*, according to its nature or reality, in terms of what it actually and really is, [...] according to its truth'.⁷

² See below 114-123.

³ Colyer has called this the basic axiom of Torrance's thought. Colyer, *How to Read*, 323f.

⁴ Torrance, *GR*, 52, 114-116; *TS*, 25-26, 198.

⁵ Torrance, *TF*, 51.

⁶ Torrance, *Meaning*, 204-205; *TNS*, 6. McGrath, *Intellectual*, 211.

⁷ T.F. Torrance, *Incarnation: The Person and Life of Christ*, ed. R. Walker, Downers Grove: IVP Academic, 2008, 202.

Torrance's point is that in *kataphysical* knowledge human reason does not regulate its own knowledge,⁸ but rather the intelligibility inherent in the object imposes its own distinctive order upon the order of human thought.⁹

we bring the inherent rationality of things to light and expression as we let the realities we investigate disclose themselves under our questioning and we on our part submit our minds to their intrinsic connections and order'.¹⁰

So far as Torrance was concerned, true knowledge is not contained within that which is already known through some closed axiomatic procedure. Rather, human knowledge is regulated by an intelligible state of affairs in reality,¹¹ such that reality itself determines the rational structure of human knowledge.

1.1. Accompanying Suppositions Regarding Reality

Travis Stevick has argued that two suppositions must obtain in order for this approach to knowledge to be intelligible: (i) reality must exist independent of the knower, and (ii) we as knowers must have a justifiable epistemic access to this reality that exists independently from us.¹² While Torrance's object-orientated approach to knowledge certainly implies these conditions, Stevick's suppositions are too broad and leave unsaid important qualifications that must be made explicit.

First, Stevick's proposal that reality exists independent of the knower should be clarified by a statement of the actual intelligibility of reality. It is not sufficient to affirm that reality is independent of the knower because this on its own does not necessitate that

⁸ Torrance, *TS*, viii.

⁹ Torrance, *TS*, 10.

¹⁰ Torrance, *TS*, xi.

¹¹ T.F. Torrance, *Juridical Law and Physical Law: Toward a Realist Foundation for Human Law*, Edinburgh: Scottish Academic Press, 1982, 2.

¹² Stevick, 'Kata Physin: A Critical Exploration of the Epistemology of T.F. Torrance as it Relates to the Philosophy of Theological and Natural Science', PhD, University of Saint Andrews, 2015, xi, 6-9. See A. Moore and M. Scott, 'Introduction', in eds., A. Moore and M. Scott, *Realism and Religion*, Farnham: Ashgate, 2007, 1-9, 1-9.

the inherent order of reality must determine how we are to think of it.¹³ This basic ontological realism must be supplemented by a more nuanced assertion that reality has an inherent intelligibility which exercises determinative influence over phenomena. If human reason is to be determined by an ‘inherent rationality’ in reality itself it follows that there must be an ontic order that can so determine it, which is independent aside from correlation to the mental activity of the knower. Aside from this clarification, Torrance’s conception of reality would not be adequate to impede the imposition of rational form from the side of humanity as phenomena are cognized.¹⁴

Second, Stevick’s supposition that humanity must have justifiable epistemic access to reality needs to be clarified by a clear statement of Torrance’s transcendental realism: the correspondence between the intrinsic intelligibility of reality and the way it appears to the observer, such that reality is known as it is in itself. For Torrance, phenomena and reality in itself are intimately connected: the intrinsic intelligibility of reality determines the way in which reality appears to the observer.¹⁵ Stevick’s notion of epistemic access, therefore, must be developed to include Torrance’s important emphasis that access to reality takes place via the phenomena which are themselves determined by the ontic order of reality. If this clarification is not made, the notion of epistemic access could be mistaken for a variant of positivism in which thought is controlled only by the way things appear considered independently from any connection to reality’s internal

¹³ Torrance, *TCFK*, 38-422; *RET*, 39-41.

¹⁴ Torrance, *TS*, xi; *TCFK*, 88-92; *GR*, 6-11; *TNS*, 56; *GG*, 113, 131.

¹⁵ The intimate relation of phenomena and reality in Torrance’s thought might be taken as ambiguous. For example, in his discussion of Einstein’s aphorism ‘God does not wear his heart on his sleeve’, Torrance wrote, ‘the real secrets of nature cannot be read off the patterns of the phenomenal surface. That is to say we cannot deduce from appearances the deep structures of reality’. Torrance, *GG*, 119. However, Torrance was not arguing for a fundamental disconnect between material appearance and intelligible character. Instead, Torrance rejected any movement from appearance to intelligible order through logical deduction. Torrance’s concern was that by the application of logical deduction, an alien rationality may be imposed upon phenomena obscuring the ontic rationality that has determined it. T.F. Torrance, *Reality and Scientific Theology*, Edinburgh: Scottish Academic Press, 1985, 83-84; *TCFK*, 76, 78, 81-82, 114, 119; *TNS*, 30.

intelligibility,¹⁶ ‘bracketing off from its purview [...] any concept of being or substance as refractory to its analytical method’.¹⁷

Stevick’s two suppositions should be expanded to four with the two extra suppositions providing greater clarity, identifying more precisely the salient points of Torrance’s realism.

1.2. Torrance and Realism

Broadly speaking, Torrance was a realist in that he held knowledge to be determined by the actual state of affairs that are real aside from being known by the observer.¹⁸ However, Torrance’s realism is characterized by elements of nuance.

First, Torrance maintained a careful distinction between language and reality and this distinction was fundamental to their appropriate connection. So far as Torrance is concerned, it is fundamental to a realist orientation of the mind to distinguish between reality and conceptual representations.¹⁹ As such, Torrance distinguished his position from what he called an ‘ultra-realist position’, which he described as the orientation of thought in which ‘sign and thing signified perfectly coincide or a statement is absolutely adequate to its object’.²⁰ The conceptual representations that are determined by reality are incomplete in their correspondence to reality. Accordingly, conceptual representations cannot be mistaken for reality. Torrance’s realism, therefore, should not be mistaken for a simplistic correspondence theory of truth or a substitute ontology in which sign is mistaken for significate.²¹ It is precisely this differentiation between reality and our

¹⁶ Torrance, *TCFK*, 73.

¹⁷ Torrance, *TCFK*, 63.

¹⁸ McGrath, *Intellectual*, 211.

¹⁹ Torrance, ‘Theological Realism’, 169-171.

²⁰ Torrance, ‘Theological Realism’, 171.

²¹ Torrance, ‘Theological Realism’, 172.

concepts concerning it that allows Torrance to treat language as a sign that points to the reality that determined it and serves that reality as its ‘transparent medium’.²²

Second, Torrance defined realism in a way that prioritized a unitary conception of reality and a corresponding unitary conception of knowledge.

[realism is] the orientation in thought that obtains in science, philosophy or theology on the basis of a non-dualist or unitary relation between the empirical and theoretical ingredients in the structure of the real world and in our knowledge of it.²³

At the core of Torrance’s conception of realism is a non-dualist understanding of reality and a corresponding understanding of the structure of human knowledge. Pertaining to the nature of reality, Torrance held that the empirical elements of reality are integrated with the non-empirical in a unitary relation. A unitary understanding of reality is one in which reality is not considered to be divided into two incompatible realms, such as the Platonic distinction between the intelligible and sensible realms, but rather constitute one integrated manifold. It is this unitary understanding of reality that is the subject of the rest of this chapter. Torrance’s conception of knowledge corresponds to this unitary conception of reality in that the empirical and the theoretical components of knowledge are to be held in one synthetic structure.²⁴

Torrance’s ‘realism’ should be understood as a complex of five closely connected factors. These factors are stated simply now in abstract form and substantiated in the following discussion.

First, Torrance held to the existence of reality independent from any correlation to the human knower.²⁵

²² Torrance, ‘Theological Realism’, 169; *Reconstruction*, 33, 36; *RST*, 70ff.

²³ Torrance, ‘Theological Realism’, 173.

²⁴ Torrance, *JLPL*, 1-5, 23-26.

²⁵ A. Moore, *Realism and Christian Faith: God, Grammar and Meaning*, Cambridge: Cambridge University Press, 2003, 1; H. Sankey, *Scientific Realism and the Rationality of Science*, Farnham: Ashgate,

Second, Torrance affirmed the intrinsic intelligibility of reality and considered true knowledge to involve knowing reality in its inherent connections. Accordingly the rational structure of knowledge is not the free creation of the human mind, but is rather achieved by the integration of the rationality of reality into our conceptual systems.²⁶ However, this important aspect of Torrance's realism must be complemented by a re-affirmation of the point that these conceptual systems do not perfectly correspond to reality but retain a proper detachment on the basis that the intelligibility inherent in reality always exceeds the capacity to be expressed in our conceptual models.

Third, Torrance developed a mode of rationality in which the rational structure of our conceptual systems is determined by the rational structure of reality such that reality is known as it is in itself. Morrison lays considerable emphasis on the intelligible order of reality which determines our conceptual representations, demonstrating that this aspect of Torrance's thought is lodged deep in important intellectual influences from the Alexandrian scientist John Philoponus through Anselm and John Major to the modern period with James Clerk Maxwell, Albert Einstein and Karl Barth.²⁷ What is in view is a mode of rationality established upon the intelligibility inherent in things,²⁸ through which the rational structure of knowledge is in accordance with the rational structure of reality.²⁹

Fourth, Torrance's realism includes a strong focus on the connection between the intelligible order of reality and how it appears to the observer, such that reality compels thought through experience. In this way, Torrance held that reality must be known as it is

2008, 14-16; B. Ellis, *The Metaphysics of Scientific Realism*, Durham: Acumen, 2009, 33-47; D. Trook, 'The Unified Christocentric Field: Toward a Time-Eternity Relativity Model for the Theological Hermeneutics in the Onto-Relational Theology of Thomas F. Torrance', PhD, Drew University, 1986, 3-6.

²⁶ Colyer, *How to Read*, 323-325.

²⁷ Morrison, *Self-Revealing*, 13-28, 77-90.

²⁸ T.F Torrance, *Christian Theology and Scientific Culture*, New York: Oxford University Press, 1980, 67-68; *TCFK*, 204-212. Morrison, *Self-Revealing*, 65-71.

²⁹ Morrison, *Self-Revealing*, 117-123.

in itself through appearances.³⁰ Luoma took the distinctive approach of understanding Torrance's realism from the *homoousion*. From this perspective, Luoma has provided a powerful interpretation of Torrance's realism as the unity of nature between appearances and reality.³¹ From this basis, Torrance's realism is said to be characterized by the *compulsion* of our thought from reality through phenomena.³²

Fifth, Torrance did not understand human language to have truth in itself but only in its reference beyond itself to the reality that determined it.³³ This is not only the case for statements that (i) semantically refer to reality but it is also the case for (ii) complex conceptual systems which include statements that syntactically refer to other statements. The reference of complex conceptual structures beyond themselves to reality requires the combination of these two forms of reference.³⁴ Accordingly, Torrance did not have a coherence understanding of truth, in which the truth of a statement is determined by some internal characteristic of epistemic adequacy.³⁵ Instead, as is developed in Chapter Three, Torrance held that the coherence of human statements may be part of the disclosure of the antecedent and objective coherence in reality itself.³⁶ Stevick has demonstrated that Torrance's understanding of truth requires the cooperation of semantic and syntactic forms of truth.³⁷ However, Stevick has also argued that the syntactic reference of language is not dependent upon reality, and is the result of human deductive reason

³⁰ Moore, *Realism*, 1.

³¹ Luoma, *Incarnation*, 65.

³² Luoma, *Incarnation*, 65-66.

³³ Torrance, *GG*, 32-37; *GR*, 34-38.

³⁴ T.F. Torrance, *Reality and Evangelical Theology*, Philadelphia: Westminster Press, 1982, 127-135; *RST*, 141-147.

³⁵ H. Putnam, *Reason, Truth and History*, Cambridge: Cambridge University Press, 1981, 49-50, cited from Sankey, *Scientific Realism*, 114-115.

³⁶ For a recent example of this see the discussion of geometric semantics where the geometric structure of our conceptual model approximates the actual structure in the world. A. Chakravartty, *Metaphysics for Scientific Realism: Knowing the Unobservable*, Cambridge: Cambridge University Press, 2007, 205-211.

³⁷ T.M. Stevick, 'Truth and Language in the Theology of Thomas F. Torrance', *Participatio: The Journal of the Thomas F. Torrance Theological Fellowship Supplementary Volume 2* (2013), 67-101, 71-75.

alone.³⁸ This is a misunderstanding. For Torrance, the valid inference between propositions is derived from the objective and coherent connections in reality itself. Stevick's helpful discussion of the synthesis of semantic reference and syntactic reference must, therefore, be complemented by the studies of Spjuth³⁹ and Munchin⁴⁰ who rightly recognize that the validity of our syntactic systems of logical deduction are themselves determined by the objective coherence in reality itself.

Such are the contours of Torrance's attitude to reality and how conceptual representations relate to it. In what follows, these broad descriptions of Torrance's attitude to reality are demonstrated first through Torrance on created reality and then through an analysis of Torrance's doctrine of God.

2.0. Torrance on Created Reality

Torrance's conception of created reality is governed by God's self-revelation as Creator.⁴¹

2.1. The Theological Basis: The Doctrine of Creation

The doctrine of creation in Torrance's thought is Christocentric.⁴² A Christocentric understanding of creation is a conception of creation that is regulated by God's self-revelation in Jesus Christ. Accordingly, Torrance's account of the doctrine of creation takes its determinative point of reference from the relationship of the Son and Father:⁴³ 'it

³⁸ Stevick, 'Truth and Language', 79-83; Luoma, *Incarnation*, 116-118.

³⁹ Spjuth, *Creation*, 96-97.

⁴⁰ D. Munchin, *Is Theology a Science?: The Nature of the Scientific Enterprise in the Scientific Theology of Thomas F. Torrance and the Anarchic Epistemology of Paul Feyerabend*, Leiden: Brill Academic Publishers, 2011, 205-220.

⁴¹ S. Patterson, *Realist Christian Theology in a Postmodern Age*, Cambridge: Cambridge University Press, 1999, 13.

⁴² Torrance, *TF*, 84. Spjuth, *Creation*, 13f.

⁴³ Torrance, *TF*, 78; *CDG*, 31. Molnar, *Theologian*, 31-36, 72-79; Colyer, *How to Read*, 156-162.

is as the Father almighty that God is Almighty Creator', meaning that what it means for God to be Creator is only comprehensible in the light of the Father-Son relation.⁴⁴

The significance of this Christocentric approach is the scope it afforded Torrance to develop an understanding of creation shaped by the contrast between the eternal generation of the Son out from the being of the Father, and the making of creation in accordance with the will of the Father.⁴⁵ While the Son is internal to the being of God and stands in necessary relation to the Father, creation is external to the being of God and dependent instead upon the volition of God.⁴⁶ As made freely in accordance with the will of God, creation is differentiated from God and so it is identifiable as that which is not God.

This provided Torrance with the basis from which to derive three important principles, all of which are important with respect to his understanding of created reality.

First, as made in accordance with the will of God, creation is (i) free from determinism, and (ii) distinct from God. Pertaining to freedom from determinism, creation exists in the will of God and so there is no inner deterministic principle (fate) that proceeds through a necessary causal chain of events.⁴⁷ Pertaining to freedom from God, creation is given its own discrete existence distinct from God, which is wholly

⁴⁴ Torrance, *TF*, 78; T.F. Torrance, *The Christian Doctrine of God: One Being Three Persons*, Edinburgh: T&T Clark, 1996, 209-212. Torrance was influenced by Georges Florovsky. Torrance, *TF*, 79n16, 85n37, 86n43. See G. Florovsky, 'Creation and Creaturehood', in *Creation and Redemption: Volume Three in the Collected Works of Georges Florovsky Emeritus Professor of Eastern Church History*, Belmont: Nordland, 1976, 43-78, 34-78; G. Florovsky, 'The Concept of Creation in Saint Athanasius' *Aspects of Church History: Volume Four in the Collected Works of Georges Florovsky*, Belmont: Nordland, 1975, 39-62, 39-62. A.J.D. Irving, 'Fr. Georges Florovsky and T.F. Torrance on the Doctrine of Creation', *St Vladimir's Theological Quarterly*. Forthcoming, 2017.

⁴⁵ Torrance, *TF*, 79ff; *CDG*, 208ff.

⁴⁶ Torrance, *TF*, 93.

⁴⁷ Torrance, *GG*, 57-60; *GR*, 96.

dependent upon God.⁴⁸ This is the basis for Torrance's commitment to the actual existence of created reality.

Second, the rational unity of the universe is derived from the doctrine of one God, who is 'the Creator of the rational forms [...] as well as the matter of things'.⁴⁹ So far as Torrance is concerned, this one idea is enough to 'produce the concept of one harmonious system of things characterized by one pervasive, if multi-variable, unity in the universe',⁵⁰ which sweeps away the Ptolemaic cosmology with its distinction between the celestial and the terrestrial worlds.⁵¹ This view is compromised by the coexistence of a Judeo-Christian doctrine of creation and Ptolemaic cosmology for much of Christian history.

Third, created reality has an intelligibility that is not necessary but rather is contingent upon being created by God. That is to say, the order of the universe is not eternal but is rather created by God from nothing,⁵² endowed upon it by the creative act of God through the *Logos*.⁵³ This is complemented by the creation of the human mind from nothing and the endowment of humanity with rational faculty, and so establishing humanity as 'intelligent counterpart to the rational order immanent in creation'.⁵⁴ The order that is inherent in reality is not finally self-sufficient or closed upon itself, for it requires a sufficient reason beyond itself.⁵⁵ This is in radical discontinuity to the prevailing intellectual context of Greek thought which Torrance argued held to the

⁴⁸ Torrance, *TF*, 105-109.

⁴⁹ Torrance, *GG*, 52; *TF*, 95-97.

⁵⁰ Torrance, *GG*, 52.

⁵¹ Torrance, *GG*, 53.

⁵² Torrance, *GG*, 53.

⁵³ Torrance, *TF*, 102f.

⁵⁴ Torrance, *GG*, 55.

⁵⁵ Torrance, *TNS*, 6, 37, 114-116; T.F. Torrance, *Divine and Contingent Order*, Oxford: Oxford University Press, 1981, 27-28.

‘identity of rationality and necessity’,⁵⁶ while that which is contingent was considered to be unintelligible,⁵⁷ particularly evident in Aristotle’s exclusion of that which is contingent from genuine knowledge.⁵⁸ In this regard, Torrance considered John Philoponus’ *De aeternitate mundi contra Aristotelem* to be a particularly significant text, refuting the eternity of creation and maintaining its intelligibility.⁵⁹ Torrance considered this conviction to lay the ‘foundation of all empirical and theoretical science’,⁶⁰ marking, in Torrance’s view, one of the most important aspects of the interface between theology and the natural sciences.⁶¹ It is because reality has its own inherent rationality that it can be known: ‘in every science we presuppose that what we know is accessible to rational inquiry, that it is somehow inherently intelligible or rational. If it were not, there could be no knowledge, let alone any science’.⁶² Moreover, as the rational order of the universe is not self-sufficient but open beyond itself, there is no inner necessity for creation to be or to be the way that it is. Correspondingly, theories concerning reality are not to be characterized by inner necessity but must be open to determination and re-determination from the side of reality the intelligibility of which exceeds our comprehension.⁶³

2.2. Three Loci for Created Reality

Torrance’s understanding of created reality may be helpfully formalized through positing three loci upon which Torrance’s ‘ontology’ intersects with his mode of rationality: (i) intrinsic intelligibility; (ii) the stratified understanding of reality and (iii) the truth of being.

⁵⁶ Torrance, *DCO*, 31.

⁵⁷ Torrance, *DCO*, 29-30; *TF*, 100; *Meaning*, 316-326.

⁵⁸ Torrance, *TNS*, 63.

⁵⁹ Torrance, *TNS*, 37.

⁶⁰ Torrance, *GG*, 56. Carr, ‘Rationality’, 249; Achtemeier, ‘Natural Science and the Christian Faith’, 275-278.

⁶¹ Torrance, *Reconstruction*, 62-75.

⁶² Torrance, *GR*, 93-94; *CTSC*, 113; *TNS*, 62-63.

⁶³ Torrance, *DCO*, 73-74.

2.2.1. Intrinsic Intelligibility

Intrinsic intelligibility (along with the terms which Torrance appears to have used synonymously⁶⁴) is the term through which Torrance expressed his conviction that the quality of being intelligible is not imposed upon reality from the knowing subject, but rather is intrinsic to reality on account of its being endowed with a rational order by the creative will of God.

Elaborating on this theme, Torrance posited a distinction between the ‘classical mind’ and the ‘modern mind.’⁶⁵ This distinction is set on the issue of the provenance of the intelligible coherence of reality.⁶⁶

But the great question still confronts us. Granted that the universe as we know it constitutes an intelligible whole, and granted that the universe exists, as we say, not only *in intellectu* but also *in re*, is the universe comprehensible to us because somehow it is *intrinsically* intelligible, because it is endowed with an immanent rationality quite independent of us which is the ground of its comprehensibility to us, or is the intelligibility with which the universe is clothed in our knowledge of it something *extrinsic* to it, which we construct out of our own mental operations and impose upon the being of the universe.⁶⁷

Torrance’s taxonomy posits a fundamental division in the history of western thought. The classical mind is said to consider the intelligibility of the universe to be inherent to the universe while the modern mind is said to consider that in our knowledge of it, ‘the intelligibility of the universe does not originally belong to it but derives from the structuring operations of the mind’s consciousness’.⁶⁸ The modern mind assumes that intelligibility is imposed upon reality through the cognitive operations of humanity.

⁶⁴ These synonymous terms include: ‘inherent intelligibility’ (Torrance, *RST*, 7); ‘inner rationality’ (Torrance, *GR*, 94); ‘inherent rationality’ (Torrance, *GR*, 94); ‘immanent rationality’ (Torrance, *GG*, 51); and ‘interior logic’. (*TS*, 205, 212). There is no substantive difference in the way Torrance uses these phrases. Torrance explicitly used the phrase ‘inner logic’ as a synonym of ‘inner rationality’ (Torrance, *GR*, 94). Stevick, ‘Openness and Formal Logic in Natural and Theological Science According to T.F. Torrance’, *Participatio: The Journal of the Thomas F. Torrance Theological Fellowship Supplementary Volume 2* (2013), 37-66, 47.

⁶⁵ Torrance, *RST*, 1-31.

⁶⁶ Carr, ‘Rationality of the Cosmos’, 242-247.

⁶⁷ Torrance, *RST*, 3.

⁶⁸ Torrance, *RST*, 3.

In casting such a neat dichotomy Torrance has inevitably over-generalized, and not accounted for the complex nuances within different systems of thought, and the vast differences between systems of thought that he groups together in this binary opposition. Taking one pertinent example, Torrance presented Kant as the archetype of the modern mind, suggesting that for Kant the provenance of intelligibility is entirely from the knowing subject, clothing representations divorced from any ontological moorings with cognizable form.⁶⁹

“given” and “objective” do not refer to any character of the things in themselves but to the synthetic and necessary form which appearances take in our cognition of them. [Kant’s] emphasis fell not on any objects given independently, but on what he called “the objective unity of self-consciousness”, which he held to constitute “an objective condition of all knowledge”.⁷⁰

Torrance’s point is that Kant separated the way things appear from the inner intelligibility of reality and impressed cognizable form upon representations.⁷¹ In Torrance’s reading of Kant, there is an *ontic* distinction between things in themselves and the way they appear to the observer, leading to a phenomenalist understanding of appearances as representations in necessary correlation to the mind. Accordingly, Torrance argued that in his “Copernican Revolution”, Kant accomplished a ‘transfer of intelligibility to the human pole of the knowing relation’,⁷² meaning that the active human subject clothed phenomena with logical coherence, bracketing off from the purview of objectivity the nature of reality as it is in itself.

As is expanded upon in the next chapter, Torrance established Kant as the foil for his own epistemological programme. In some ways, Torrance’s synthesis of rational structure and material content could be understood as a reversal of Kant’s transcendental

⁶⁹ Luoma, *Incarnation*, 115. J. Brown, *Subject and Object in Modern Theology*, London: SCM Press, 1955, 23-24.

⁷⁰ Torrance, *TCFK*, 38.

⁷¹ Torrance, *TCFK*, 37.

⁷² Torrance, *TCFK*, 38.

idealism, through identifying the provenance of cognizable form is reality itself, and not our cognitive operations. However, Torrance could also be understood as caricaturing Kant's actual thought so to provide a contrasting position against which to better establish his own. Certainly, scholarship on Kant suggests a far more complex situation than is reflected in Torrance's analysis.

Pertaining to the objective existence of spatio-temporal objects, dispute continues over whether Kant can truly be understood as conceiving of objects in space and time as logical constructions (as representations that exist only in connection to the perceiver).⁷³ Certainly, there is textual evidence to suggest that Kant considered appearances to be 'representations of our sensibility',⁷⁴ and 'representations, which, as represented, as extended beings or series of alterations, have outside our thoughts no existence grounded in itself'.⁷⁵ However, Kant also stated that objects did have spatio-temporal existence outside of their representation in the human mind,⁷⁶ as his refutation of Descartes' idealism indicates: 'the mere but empirically determined, consciousness of my own existence proves the existence of objects in space outside me'.⁷⁷

Pertaining to the actual existence of space and time themselves, Luoma has criticized Torrance for his one-sided treatment of Kant's notion of space and time, noting that while Torrance responded to Kant's consideration of space and time as modes of intuition, Torrance was silent on the elements of Kant's thought which may be taken to

⁷³ A. Collins, *Possible Experience: Understanding Kant's Critique of Pure Reason*, Berkeley: University of California Press, 1999, 2.

⁷⁴ Kant, *CPR*, B45.

⁷⁵ Kant, *CPR*, B518-19.

⁷⁶ Kant, *CPR*, A373. Cited from L. Allais, *Manifest Reality: Kant's Idealism and his Realism*, Oxford: Oxford University Press, 2015, 22-23.

⁷⁷ Kant, *CPR*, B275. Cited from J.F. Rosenberg, *Accessing Kant: A Relaxed Introduction to the Critique of Pure Reason*, Oxford: Clarendon Press, 2005, 241.

suggest a metaphysical understanding of space and time.⁷⁸ For example, Rosenberg has argued that Kant did not hold to Leibniz' relational theory of space, but a more complex arrangement in which outer things are represented in space, where space does not cause representations, but is the condition of representations. In this interpretation, space is not simply the relationships of the objects that are in it, but equally is still correlative to its contents.⁷⁹

Moreover, there is disagreement over whether Kant's distinction between things in themselves and things as they appear to us is a metaphysical or an epistemological distinction. Interpretations which favour a metaphysical distinction suggest Kant was an idealist for whom things in themselves are unknowable leading to a phenomenalist limitation of appearances to representations.⁸⁰ Historically, this has been a powerful interpretative position,⁸¹ and is well represented in contemporary scholarship.⁸² Broadly speaking, Torrance's interpretation should be located within this group. It is important to note that Torrance wrote at a time in which this interpretation was particularly powerful with influential advocates such as P.F. Strawson. Indeed, Torrance's interpretation has much in common with Strawson's analysis, particularly in positing a connection between Kant's phenomena-noumena distinction and Galileo's distinction between primary and

⁷⁸ Luoma, *Incarnation*, 115. See also the discussion of the complexities surrounding Kant's understanding of space and time. J.S. Earman, *World Enough and Space-Time: Absolute versus Relational Theories of Space and Time*, London: MIT Press, 1989, 137; P.F. Strawson, *The Bounds of Sense: An Essay on Kant's Critique of Pure Reason*, London: Methuen, 1966, 23f; Inwood, 'Kant and Hegel on Space and Time' in *Hegel's Critique of Kant*, ed. S. Priest, Oxford: Clarendon Press, 1987, 49-64, 53.

⁷⁹ Rosenberg, *Accessing Kant*, 64-69.

⁸⁰ Strawson, *The Bounds of Sense*, 150-151, 159f.

⁸¹ H. Allison, *Kant's Transcendental Idealism: An Interpretation and Defense*, New Haven: Yale University Press. Revised Edition, 2004, 5n4.

⁸² D. Hogan, 'Three Kinds of Rationalism and the Non-Spatiality of Things in Themselves', *Journal of the History of Philosophy*, 47.3 (2009), 355-382, 355-382; D. Hogan, 'How to Know Unknowable Things in Themselves', *Noûs* 43.1 (2009), 49-63, 49-63; C. Marshall, 'Kant's Appearances and Things in Themselves as Qua-Objects', *Philosophical Quarterly* 63 (2013), 520-545.

secondary qualities and the equation of the spatiotemporal framework to the forms of intuition.⁸³

On the other hand, interpreters who stress that the distinction between things in themselves and appearances is epistemological contend that Kant envisaged no ontological division between reality and appearances but that the division between things in themselves and appearances is a methodological distinction in Kant's transcendental deduction (two ways of understanding one reality). This view has received significant support in recent scholarship.⁸⁴

However, it is not simply that Torrance's position uncritically appropriates one particular stream of the historical interpretation of Kant and ignores others and also ignores conflicting textual evidence in Kant's work itself. Torrance's interpretation has the further problem that a mediating position has recently been proposed that accepts a metaphysical distinction between appearances and things in themselves and so, therefore, accepts that appearances are representations (a core component of Torrance's criticism of Kant) but does not extend this to the extreme idealist position that Torrance took it. Lucy Allais has recently argued for a moderate metaphysical interpretation of Kant's transcendental idealism in which Kant attempted to 'incorporate and mediate between competing philosophical pressures'.⁸⁵ Allais argues that while Kant did treat appearances as representations (and so did hold, to some extent, that appearances are dependent upon minds) that this is not sufficient to identify Kant as a phenomenalist. Allais argues that Kant did not reduce reality to representations but held to the mind-dependence of

⁸³ Strawson, *Bounds of Sense*, 38-42. See below, 118-120.

⁸⁴ G. Bird, *Kant's Theory of Knowledge: an Outline of One Central Argument in the Critique of Pure Reason*, London: Routledge & Kegan Paul, 1962; C. Posy, 'The Language of Appearances and Things in Themselves', *Synthese* 47.2 (1981), 313-352; Allison, *Kant's Transcendental Idealism*, 16ff, 50-72.

⁸⁵ Allais, *Manifest Reality*, 9.

representations in a substantial sense. As such, Allais argues that Kant affirmed the existence of objects outside the human mind in conscious differentiation from Berkeley.⁸⁶

while some of Kant's central concerns are epistemological, his transcendental idealism must be understood as containing substantial metaphysical commitments: to the mind-dependence of things as they appear to us, and to the existence of an aspect of reality that grounds appearances and things, and which we cannot cognize.⁸⁷

Allais' point is that Kant considered that reality does exist aside from its relation to the observer and that appearances are caused by reality as it is in itself,⁸⁸ but yet still representations are dependent upon the human knower. As such, Allais' argument accepts that appearances are representations, but she does not draw the inference that appearances are devoid of ontological basis such that they must be clothed with intelligibility by the knower. On this reading, it is not necessarily a valid inference from the equation of appearance and representations to wholesale phenomenism and idealism, such as Torrance's reading implies.

While Torrance's critique of Kant lacks nuance, the goal of this inquiry is not to provide a source-critical assessment of Torrance's treatment of Kant. Instead, the focus falls on the mode of rationality Torrance developed in reversal of the mode of rationality that he associated with thinkers such as Kant.

Returning to Torrance's dichotomy of the classical/modern mind, Torrance did not (as one might expect) trace the classical mind to Platonic tendencies in mathematics and logic. Rather Torrance pointedly traced it to the Christian theologians of Alexandria and the articulation of the doctrine of creation and incarnation. So far as Torrance is concerned it was Athanasius, Origen and John Philoponus as they brought Judeo-Christian theology to bear on the philosophy and science of the day that provided the basis of the conviction that reality has its own inherent order, and the corresponding view

⁸⁶ Allais, *Manifest Reality*, 37-58.

⁸⁷ Allais, *Manifest Reality*, 7.

⁸⁸ Allais, *Manifest Reality*, 3ff, 59-76.

that to know is to ‘penetrate into the inner connections and reasons of things in virtue of which they are what they are’.⁸⁹

Conversely, Torrance traced the beginnings of the modern bent of mind to the middle ages and an increasing emphasis upon the agent intellect through the Aristotelian notion of abstraction from sense-experience through which the object of knowledge was transferred from that which is external to the observer, to a form of representative perception in which the object of the mind abstracted from sensory appearances is treated as the primary object of knowledge.⁹⁰ However, the full expression of the modern bent of mind is associated with the dichotomy between experience and reason attendant upon problems of subjectivity and the conditioning of experience through an absolute regulatory structure in Newtonian cosmology, transferred to the relation of intuition and understanding in Kant’s regulation of phenomena.⁹¹ This, Torrance argued, accomplished the ‘transfer of intelligibility to the human pole of the knowing relation’,⁹² arguing that Kant’s phrase ‘the understanding does not derive its laws (*a priori*) from, but writes them into nature’,⁹³ is indicative of a movement of thought in which humanity impose ‘our formal patterns of thought upon nature’.⁹⁴

A basic difference between the classical mind and the modern mind, such as Torrance presented them, is that the modern mind is established upon an ontological dualism. In part, it is for this reason that Torrance was hesitant to trace the classical mind to Plato, owing to the Platonic distinction between the realm of being and the realm of

⁸⁹ Torrance, *RST*, 7.

⁹⁰ Torrance, *RST*, 9.

⁹¹ Torrance, *RST*, 15-16. See below, 118.

⁹² Torrance, *RST*, 16-17.

⁹³ Kant, *Prolegomena to any Future Metaphysics*, 36, cited from Torrance, *RST*, 17.

⁹⁴ Torrance, *RST*, 17.

becoming.⁹⁵ Torrance argued that the Platonic distinction between that which always is and has not becoming and that which is always becoming and never is constitutes a cleavage in the way reality is understood with the intelligible reality on one side and the transitory phenomena on the other, leading to a disjunctive epistemological approach in which appearances are penetrated beyond and jettisoned. For this reason, Torrance traced the classical mind to Alexandrian theology with its emphasis on the rational unity of the universe and the endowment of intelligible order by the *Logos* of God.

Luoma has provided a helpful overview of the breadth and complexity of the notion of dualism, and located Torrance within this wider field.⁹⁶ The salient points of Luoma's analysis are that dualism pertains to the nature of the relationship between two principles in a wide variety of potential fields of study,⁹⁷ and this relationship can be harmonious or it can be antithetical.⁹⁸ So far as Torrance was concerned, a dualistic relationship was one in which two principles are in an 'incompatible' relationship.⁹⁹ This incompatible relationship could arise in a variety of fields of study, although Torrance is most frequently concerned with ontological and epistemic dualisms.¹⁰⁰

Torrance's understanding of ontological dualism is a version of the antithetical relationship between two principles. However, Torrance was no monist. He recognized distinctions and relation to be (quite literally) *essential*. Instead, Torrance held a dualistic

⁹⁵ Torrance, *Meaning*, 18, 22-25, 160-162; *TCFK*, 63; T.F. Torrance, 'Scientific Hermeneutics according to St Thomas Aquinas', *Journal of Theological Studies* 13 (1962), 259-289, 259.

⁹⁶ Luoma, *Incarnation*, 83-85.

⁹⁷ R.M. McNerny, 'Dualism', in *New Catholic Encyclopaedia*, New York: McGraw-Hill, 1967, 1073-75, 1072-1075; E. Simons, 'Dualism', in *Encyclopaedia of Theology: A Concise Sacramentum Mundi*, ed. K. Rahner, London: Burns and Oates, 1975, 370-374, 370-371.

⁹⁸ G. Lanckzkowski, 'Dualismus' in *Theologische Realenzyklopädie*, vol. 8, Berlin: de Gruyter, 1982, 199-202. Cited from Luoma, *Incarnation*, 83-85.

⁹⁹ T. McMaken, 'Actualism, Dualism, and Onto-Relations: Interrogating Torrance's Criticism of Barth's Doctrine of Baptism', *Participatio: The Journal of the Thomas F. Torrance Theological Fellowship*, 6 (2016), 6-7.

¹⁰⁰ T.F. Torrance, 'Notes and Comments', in *Belief in Science and in Christian Life: The Relevance of Michael Polanyi's Thought for Christian Faith and Life*, ed. T.F. Torrance, Edinburgh: The Handsel Press, 1980, 133-147, 136; T.F. Torrance, *The Mediation of Christ*, Exeter: Paternoster Press, 1983, 47. See also, Lee, *Living in Union*, 14.

ontology to be the positing of an incompatible relationship between the intelligible and the sensible. For example, Torrance understood Newton's distinction between absolute time and space and relative time and space to constitute an attempt to account for the regularity of the universe through regulating the relativities of appearance by the imposition of an absolute order. Torrance's criticism is effectively that Newton's absolute time and space served as an extrinsic regulatory framework, through which the problem of the subjective relativity of phenomena is harmonized in accordance with an absolute schema.¹⁰¹ Torrance traced this mode of thought to Aristotle, arguing that the Aristotelian conception of space was an immobile and volumetric receptacle of physical reality that functions as an absolute structure, imposing intelligible form upon its physical contents.¹⁰²

With ontological dualism as its counterpoint, intrinsic intelligibility should be understood as the integrated relation between the intelligible and the sensible.¹⁰³ This is not to collapse the intelligible into the sensible (or *vice versa*) but to recognize their actual integration. For example, Torrance understood the relativistic theories of Einstein to overcome the absolute-relative distinction of Newtonian mechanics through identifying space and time in reciprocal relation with matter.¹⁰⁴ Torrance understood General Relativity (1916) and Special Relativity (1905) as describing how form and matter are bracketed together in an integrated space-time continuum, meaning that reality is

¹⁰¹ Torrance, *TCFK*, 12-36; 61-105; 263-283; *GR*, 3, 9, 101ff; *DCO*, 8ff, 75; *GG*, 21-25; 68-71; *CTSC*, 17-23; T.F. Torrance, *The Christian Frame of Mind*, Edinburgh: The Handsell Press, 1985, 25, 36. See also, Achtemeier, 'Natural Science and Christian Faith in the Thought of T.F. Torrance', in *The Promise of Trinitarian Theology: Theologians in Dialogue with T.F. Torrance*, ed. E.M. Colyer, Lanham: Rowman and Littlefield Publishers, 2001, 269-302, 282-286; Murtha-Smith, 'New Theology', 66; Wong, 'Appraisal', 124-128; L. Qu, 'Newton, Einstein and Barth on Time and Eternity', *Scottish Journal of Theology* 67.4 (2014), 436-438; M. Jammer, *Concepts of Space: The History of Theories of Space in Physics*, 2nd Edition, Cambridge: Harvard University Press, 1969, 101, 112-115.

¹⁰² Torrance, *Meaning*, 300-309; T.F. Torrance, *Space, Time and Incarnation*, London: Oxford University Press, 1969, 8-11. Other interpretations argue that Aristotle's space is a means of making concrete the relations between things, and is thus a manifestation of the objective relations in the actual world. See Akhundov, *Conceptions of Space and Time*, 84-85.

¹⁰³ Newell, 'Participatory Knowledge', 32-35, 56; Wong, 'Appraisal', 140-142.

¹⁰⁴ Torrance, *DCO*, 77; *CFM*, 36-37; *TCFK*, 247.

composed of its own inner logic that exceeds the bounds of human comprehension.¹⁰⁵ So far as Torrance was concerned, this identified the universe as ‘so inherently orderly that it is accessible to our rational investigation in its inner constitutive relations’.¹⁰⁶ Intrinsic intelligibility means that reality is inherently coherent and amenable to rational understanding (i.e. it is intelligible) and its coordination to phenomena means that phenomena do not need to be regulated through an extrinsic rational structure.

2.2.2. Stratification of Reality

Torrance conceptualized reality as a stratified structure.¹⁰⁷ Through this structure, the concept of intrinsic intelligibility is developed to demonstrate how intrinsic intelligibility exercises determinative influence over phenomena. Accordingly, phenomena are considered to be composed of an implicit pattern, determined by the cognizable structure of reality. This is what may be called Torrance’s transcendental realism.

Torrance’s stratified structure functions through three strata which are integrated in a hierarchy. The lowest stratum is the stratum of phenomena and the higher strata are

¹⁰⁵ Torrance, *TCFK*, 266, 273. See also, C.B. Kaiser, ‘Humanity in an Intelligible Cosmos: Non-Duality in Albert Einstein and Thomas Torrance’ in *The Promise of Trinitarian Theology: Theologians in Dialogue with T.F. Torrance*, ed. E.M. Colyer, Lanham: Rowman and Littlefield Publishers, 2001, 239-268, 247-248; Murtha-Smith, ‘Advancement’, 67-68. Torrance affirmed Kaiser’s interpretation with its emphasis on the integration of the intelligible and the sensible in Einstein. Torrance, ‘Torrance Responds’, 332-335. Torrance’s interpretation of Einstein has been criticized. Wong, ‘Appraisal’. Any effort to defend Torrance’s interpretation of Einstein must overturn Wong’s weighty critique. See also, Luoma, *Incarnation*, 116-117; Weightman, *Polanyian*, 191-193; Munchin, *Is Theology a Science*, 58-59, 61-67; I.G. Barbour, *Issues in Science and Religion*. Study Edition, London: SCM Press, 1972, 272 n27; Polkinghorn, ‘Review of *Reality and Scientific Theology*’, 681; L. Sansom, ‘Scientific Theology: An Examination of the Methodology of Thomas Forsyth Torrance’, PhD, Southwestern Baptist Theological Seminary, 1981, 187, 199; Stevick, ‘*Kata Physin*’, 36ff. Contrary readings of Einstein are common: Fine, *The Shaky Game*, 86-111; J. Polkinghorn, *Reason and Reality: The Relationship Between Science and Theology*, London: SPCK, 1991, 85; Hesse, ‘Retrospect’, 283; A. Grünbaum, ‘The Philosophical Retention of Absolute Space in Einstein’s General Theory of Relativity’, *Philosophical Review* 66.4 (1957), 525-534.

¹⁰⁶ Torrance, *TCFK*, 251.

¹⁰⁷ Behind Torrance’s stratified model for reality is his understanding of Einstein’s multi-dimensional reality in which reality is understood as having its own inherent order such that phenomena cannot be taken in the ‘flat’ of sensory appearance, but rather in the ‘depths’ of the internal structures which determine phenomena. See, T.F. Torrance, ‘We Have Broken Free from a Closed Universe’ – Interview with B. Cooper, *The British Weekly & Christian World* (21 September, 1979), 7; *TCFK*, 72-75, 248; *CTSC*, 24.

the strata of reality's intelligible relations. The higher strata determine the behaviour of the phenomena at the lowest stratum. By taking a cross section of just two strata, the mechanisms that drive this hierarchical model can be understood.

The immediately higher stratum exercises control over the behaviour of the stratum immediately below it. In this way, the qualities of the higher level impose themselves upon the lower stratum.

[The] ontological stratification in the universe comprising a sequence of logical levels, each higher one controlling the boundaries of the one below it and embodying thereby the joint meaning of the particulars situated on the lower level, which implied in Michael Polanyi's words, "that all meaning lies in the higher levels of reality that are not reducible to the laws by which the ultimate particulars of the universe are controlled". Together all this tells us that the universe in its immanent structure comprises a hierarchy of levels of reality which are open upward but not reducible downward, for no one level provides the sufficient reason for its own contingent order which may be formalized only through reference to another level or to other levels beyond it.¹⁰⁸

Several very important points can be made from this citation.

First, Torrance recognized a hierarchy within created reality. Torrance was no monist, recognizing a distinction between the different components of reality and held them in an integrated, or unitary (i.e. non-dualist) relationship within one stratified conception of reality.

Second, in this stratified vision of reality, phenomena are determined by the higher, intelligible levels of reality. In the stratified structure of reality, the levels of reality that are 'higher' control the 'boundaries' of the lower level. Torrance's meaning is bound to his interpretation of Polanyi's notion of different logical levels.¹⁰⁹ Two Polanyian mechanisms of the stratified reality are very important precedents through which Torrance expressed his thought: (i) by the mechanism of 'marginal control', the

¹⁰⁸ Torrance, *DCO*, 20; *RST*, ix.

¹⁰⁹ For a discussion of Polanyi's hierarchical conception of reality in connection to Torrance's, see R.K. Martin, *The Incarnate Ground of the Christian Faith: Toward a Christian Theological Epistemology for the Educational Ministry of the Church*, Lanhan: University Press of America, 1998, 229-234. See also, Torrance, *TCFK*, 136-147; *STR*, 191; *DCO*, 20.

coherence and relations within one stratum determine the behaviour of the stratum immediately beneath it;¹¹⁰ (ii) ‘boundary conditions’ refer to the determination of the lower stratum by the coherences of the stratum immediately above it. Through these notions, Torrance held that the lower level of phenomenal reality is controlled by the higher level of intelligible reality. In this way, the stratified, hierarchical universe is intended to demonstrate that patterns are intrinsic to reality itself and transcend the human mind to which the scientific mind maintains an open flexibility.¹¹¹

Third, these different logical levels are ‘open upward but not reducible downward’. By this Torrance meant that the higher stratum influences the lower stratum, but there is no corresponding counter-influence of the lower upon the higher. The behavior of the lower stratum is determined by the stratum immediately above it, but the higher stratum is not affected by the lower. Specifically, phenomena are characterized by an implicit pattern that is the result of being determined by the intrinsic rational order of reality.

Fourth, Torrance argued that phenomena are to be explained from the higher, intelligible strata. In other words, the stratum of phenomena derives its implicit pattern and coherence from the intelligible strata of reality. This has important epistemological implications. The appropriate mode of rationality for such a state of affairs cannot include the imposition of an alien structure of coherence from the side of the epistemic subject. The rational form by which phenomena are cognized is inherent to reality, manifested through phenomena. The coherence of phenomena is from the actual intelligible structure within reality.¹¹² Therefore, phenomena must not be abstracted from the natural network

¹¹⁰ Torrance, *TCFK*, 136. See also Weightman, *Polanyian*, 235-237; Spjuth, *Creation*, 55-57.

¹¹¹ Torrance, *TCFK*, 160.

¹¹² Torrance, *CFM*, 60.

of relations in which they stand and interpreted in accordance with an alien organizing principle.¹¹³

Torrance substantiated his conviction regarding the internal, intelligible order of reality through the concept of onto-relations. Onto-relations are being-constituting relations.¹¹⁴ Torrance used this concept to express the view that aspects of reality exist in necessary relations, and that these relations constitute their being.¹¹⁵ For example, the concept of a person as it has arisen from Christian theology is a ‘primary instance of an onto-relational reality’,¹¹⁶ as the persons are differentiated by their respective relations.¹¹⁷ In this way, onto-relationality pertains to Torrance’s understanding of the inter-relationality of reality.¹¹⁸ Tightly connected to onto-relationality in Torrance’s thought is the notion of order. That relations constitute reality, Torrance argued, gives to reality a ‘dynamic ontological structure [...] in which form, motion and being are inextricably intertwined’.¹¹⁹ Torrance’s point is that reality has a dynamic and complex order constituted by a network of relations.

2.2.3. The Truth of Being

In Torrance’s thought, truth is primarily ontological, and he expressed this conviction through the notion of the truth of being. The truth of being has a double orientation in Torrance’s thought. First, the truth of being is what a thing actually is. It follows that, for Torrance, truth is not primarily identified as the appropriate relation between conceptual

¹¹³ Morrison, *Self-Revealing*, 110-114.

¹¹⁴ Torrance, *Mediation*, 47-50; *RET*, 43-45.

¹¹⁵ E.M. Colyer, ‘A Scientific Theological Method’ in *The Promise of Trinitarian Theology: Theologians in Dialogue with T.F. Torrance*, ed. E.M. Colyer, Lanham: Rowman and Littlefield Publishers, 2001, 205-238., 211.

¹¹⁶ Torrance, *RET*, 43.

¹¹⁷ Torrance, *CDG*, 157.

¹¹⁸ M.M. Davis, ‘An Explanatory Account and Examination of the Doctrine of the Mediation of Jesus Christ in the Scientific Theology of T.F. Torrance’, PhD, Northwest University, 2012, 2; McMaken, ‘Actualism’, 9-10.

¹¹⁹ Torrance, *RET*, 44. See also, Colyer, ‘A Scientific Method’, 11.

representation and reality, but rather is something that belongs to reality itself.¹²⁰ Second, the truth of being involves the close correlation between what a thing is in itself and how it manifests itself in its self-disclosure.

Torrance provided a definition of his understanding of the truth of being in the first of his ten theses on truth.¹²¹

The truth is that which is what it is and that which discloses what it is as it is. The concept of truth enshrines at once the reality of things and the revelation of things as they are in reality. Truth comes to view in its own majesty, freedom and authority, compelling us by the power of what it is to assent to it and acknowledge it for what it is in itself.¹²²

The double orientation of the truth of being is clearly stated in this passage.

First, Torrance identified that the truth is independent of correlation to the consciousness of an observer: a thing is that which it is, and this is its truth.¹²³ Torrance's realist understanding of truth owes much to Anselm of Canterbury,¹²⁴ particularly as Anselm was interpreted by Karl Barth. While there are strong traces of what has been identified as ontological realism in Anselm's *Monologion*,¹²⁵ the ontological basis of knowledge is strongly emphasized in Barth's treatment of Anselm's *Proslogion*.¹²⁶ Particularly important is Barth's assertion that 'the *ratio* is the rationality of the object in so far as it makes it intelligible to a being who can understand',¹²⁷ and as such 'ontic rationality precedes noetic'.¹²⁸ This means that the way something is in its own coherence determines how it is to be thought of. By merit of this, accurate knowledge is that which

¹²⁰ For Torrance's stratified approach to truth and his debt to Anselm on this, see Torrance, *RST*, 140-146. See Stevick, 'Truth and Language', 75-79.

¹²¹ Torrance, *TCFK*, 303-304, 310-316; *TS*, 141-142.

¹²² Torrance, *TCFK*, 303.

¹²³ See also, Stevick, 'Truth and Language', 71-75 & 83-85.

¹²⁴ Torrance, *RST*, 88-89, 141-147; T.F. Torrance, 'The Ethical Implications of Anselm's *De Veritate*', *Theologische Zeitschrift* 24 (1968), 309-319, 309-319.

¹²⁵ See C. Erismann, 'Immanent Realism: A Reconstruction of an Early Modern Solution to the Problem of Universals', *Documenti E Studi Sulla Tradizione Filosofica Medievale* 18 (2007), 211-229, 216-217.

¹²⁶ T.F. Torrance, *Karl Barth: An Introduction to His Early Theology, 1910-1931*, London: SCM Press, 1962, 182-183.

¹²⁷ K. Barth, *Anselm: Fides Quaerens Intellectum: Anselm's Proof of the Existence of God in the Context of his Theological Scheme*, trans. I. Robertson, London: SCM Press, 1960, 50.

¹²⁸ Barth, *Anselm*, 50.

is in accordance with the object's ontic *ratio*.¹²⁹ Barth argued that the ontic *ratio* takes priority over the noetic *ratio*.¹³⁰

In Torrance's assessment, Barth's study of Anselm was the 'decisive turning point in [Barth's] thinking',¹³¹ for, applied to theology, it identified that that which God is in his own truth is determinative of all theological thought.¹³² This point is emphasized in Torrance's analysis of Barth's early theology concerning the priority of ontic *ratio* as that to which noetic *ratio* must correspond.¹³³ Torrance found in Barth the conviction that the noetic *ratio* is 'determined by its proper object',¹³⁴ meaning that the 'inner rationality' of reality should determine human thought.¹³⁵ Human reason does not operate according to its own laws, but rather in accordance with the laws of that into which it inquires.¹³⁶ McCormack has provided an important analysis of the significance of Barth's interpretation of Anselm, which bears points of continuity and points of discontinuity with Torrance's analysis. McCormack has argued that Torrance is incorrect to prioritize Barth's reflections on Anselm as a pivotal turning point in Barth's method, on the grounds that the kernel of this commitment to the priority of the ontic order of reality can be found in Barth's earlier work.¹³⁷ However, McCormack does recognize that in Barth's analysis of Anselm there is an emphasis on human reason being brought into accordance

¹²⁹ S. Wigley, 'Karl Barth on St. Anselm: The Influence of Anselm's "Theological Scheme" on T.F. Torrance and Eberhard Jüngel', *Scottish Journal of Theology* 46.1 (1993), 79-97, 82-83; G. Watson, 'Karl Barth and St Anselm's Theological Programme', *Scottish Journal of Theology* 30.1 (1977), 31-45, 32.

¹³⁰ Barth, *Anselm*, 44-59.

¹³¹ Torrance, *KBIET*, 182.

¹³² Torrance, *KBIET*, 150-152; Torrance, 'The Problem of Natural Theology in the Thought of Karl Barth', *Religious Studies* 6.2 (1970), 121-135. Subsequently Republished with minor alterations in T.F. Torrance, *Karl Barth: Biblical and Evangelical Theologian*, Edinburgh: T&T Clark, 1990, 136-159. References throughout are taken from *KBBET*.

¹³³ Torrance, *KBIET*, 186-189; T.F. Torrance, 'Review of *The Shadow of Scotus: Philosophy and Faith in Pre-Reformation Scotland*', *Scottish Journal of Theology* 49.3 (1996), 370-373, 371.

¹³⁴ Torrance, *KBIET*, 187.

¹³⁵ Torrance, *KBIET*, 186-189.

¹³⁶ Torrance, *KBIET*, 191-192.

¹³⁷ B.L. McCormack, *Karl Barth's Critically Realistic Dialectical Theology: its Genesis and Development, 1909-1936*, Oxford: Clarendon Press, 1995, 421-441.

with the inherent rationality of reality through the priority of the ontic *ratio* over the noetic.¹³⁸

In this connection, Wigley has demonstrated that Torrance's understanding of the priority of ontic rationality has roots in Barth's treatment of Anselm.¹³⁹ Wigley's analysis is corroborated by Torrance's analysis of truth in Anselm's *De Veritate* which parallels the themes raised in Barth's analysis of *Proslogion*.

the truths of statement and signification presuppose the *truth of being*, or what Anselm calls "the truth of the essence (or existence) of things" (*veritas essentiae rerum*). The truth of a thing or of a being is its reality, what it actually is.¹⁴⁰

Torrance understood Anselm to have functioned with a conviction in the ontological status of truth, on account of which he posited a hierarchical structure, through which the truth of being has priority over the truth of statement,¹⁴¹ just as ontic ratio had precedence over the noetic ratio.

Second, Torrance claimed that truth discloses itself as that which it is. Torrance's conception of 'truth' carries within it both the ontic identity of a thing, and its disclosure of that which it is. The truth of being is what a thing is in itself and what it is disclosed to be.¹⁴² Torrance's insistence upon the complementarity between truth (*alētheia*) and nature (*physis*) in patristic thought is particularly pertinent in this connection. Referring in particular to Athanasius' employment of *physis*, Torrance argued that *physis* has a double significance. First, *physis* refers to the nature of what a thing is in itself. In this sense, *physis* should be understood as overlapping with the meaning of *ousia*. Torrance takes

¹³⁸ McCormack, *Critically Realistic*, 429-431 and 438. See also, H.U. von Balthasar, *The Theology of Karl Barth: Exposition and Interpretation*, trans. E.T. Oakes, San Francisco: Communio Books, 1992, 158-160; E. Jüngel, *Karl Barth: a Theological Legacy*, Philadelphia: Westminster Press, 1986, 42.

¹³⁹ Wigley, 'Karl Barth on Anselm', 82-85. See also, Morrison, *Self-Revealing*, 15-17.

¹⁴⁰ Torrance, *RST*, 145. Barth, *Anselm*, 50-51.

¹⁴¹ Torrance, *RST*, 140-146; 'The Ethical Implications of Anselm's *De Veritate*', 309-310, 312, 318.

¹⁴² Torrance, *GG*, 96-97; *RST*, 46-47; *TCFK*, 312, 317, 319; T.F. Torrance, 'Review of Martin Heidegger, *Being and Time*', *Journal of Theological Studies* 15 (1964), 471-486, 479, 484-485.

ousia to refer to more than the existence of God, but actually to refer to that which God is.¹⁴³ Second, *physis* refers to the concrete presence of that reality as it gives itself to be known.¹⁴⁴ As such, Torrance claimed that *physis* is used by Athanasius to denote a reality that confronts the observer as it is in itself.¹⁴⁵ Thus *physis*, in Torrance's understanding, refers to a thing that gives itself to be known in accordance with that which it is in itself through its outward relations to an observer.¹⁴⁶ This double orientation of *physis* as (i) the truth of what something is in itself and (ii) its manifestation of itself as it is in itself ensures that *physis* is inseparable from Torrance's understanding of *alētheia*. Torrance understood *alētheia* to refer to unconcealment.¹⁴⁷ Accordingly, truth, for Torrance, is the reality of what something is in itself coming out of concealment and being known in its own openness of being.¹⁴⁸

Now truth, *alētheia*, is the manifestation of the hidden, that which is what it is in the event of its disclosure. Thus in that sense *physis* and *alētheia* are more or less equivalents, for truth is the truth of being coming out of its hiddenness into manifestation, the revealing of *physis*. Truth means that the *physis* of something stands out before us and manifests itself before us in accordance with what it is in its own being, reality or *physis*.¹⁴⁹

Both *physis* and *alētheia* pertain to the manifestation of reality as it is in itself.¹⁵⁰ For this reason, Morrison's comment is apposite: 'The truth of being is basically synonymous with objective reality as it is dis-closed to be known'.¹⁵¹ In this sense, Torrance did not consider appearances to be representations, only existing in correlation to the affected sensibility of the knower, but to be the manifestation of an independently existing reality.

¹⁴³ T.F. Torrance, *Theology in Reconciliation: Essays towards Evangelical and Catholic Unity in the East and West*, London: Geoffrey Chapman, 1975, 244. See also, G.L. Prestige, *God in Patristic Thought*, London: Heinemann, 1936, 195.

¹⁴⁴ Torrance, *Incarnation*, 202-203.

¹⁴⁵ Torrance, *Reconciliation*, 247-248.

¹⁴⁶ Torrance, *Reconciliation*, 248. See also, Morrison, *Self-Revealing*, 86.

¹⁴⁷ Torrance understood *alētheia* as a negation of *lēthē* (forgetting) thus referring to coming out from *forgottenness*. Torrance, *Incarnation*, 203n29. For the influence of Heidegger, see Torrance, *RST*, 47; *TS*, 224n1. See J.D. Morrison, 'Heidegger, Correspondence Truth and the Realist Theology of Thomas Forsyth Torrance', *Evangelical Quarterly* 69.2 (1997), 139-155.

¹⁴⁸ Torrance, *Incarnation*, 203.

¹⁴⁹ Torrance, *Incarnation*, 203.

¹⁵⁰ Torrance, *Reconciliation*, 247-248.

¹⁵¹ Morrison, 'Heidegger, Correspondence Truth', 152.

In this connection, Luoma has argued that the close correspondence between reality in itself and its manifestation is to be attributed to the force of the *homoousion* in Torrance's thought. Luoma traces the significance of the *homoousion* to an identity of nature between reality in itself and reality as it appears to the observer, on account of which the thought of the observer is compelled by reality.¹⁵² Luoma's approach recognizes that the thrust of Torrance's ontology is the deep integration of sensibility and intelligibility. However, aside from one illustrative reference in which Einstein's theory of Relativity is described as the *homoousion* of physics owing to the integration of form and matter,¹⁵³ Torrance did not tend to extend the significance of the *homoousion* this way. It is more appropriate to prioritize Torrance's stratified conception of reality in order to demonstrate how the intelligible and supra-sensible elements of reality are integrated with the sensible, as described above.

3.0. The Doctrine of God

Torrance's doctrine of God is characterized by the correspondence between God's internal relations and God's external relations. Fundamentally, Torrance's theology focusses on the actuality of God as God gives himself to be known through his external relations to creation.

Christian theology arises out of the actual knowledge of God given in and with concrete happening in space and time. It is knowledge of the God who actively meets us and gives Himself to be known in Jesus Christ – In Israel, in history, on earth. It is essentially positive knowledge, with articulated content, mediated in concrete experience. It is concerned with the fact, the fact of God's self-revelation¹⁵⁴

In this sense, the possibility of theological knowledge is grounded in its actuality as God reveals himself through Jesus Christ.¹⁵⁵ On its own, this could be construed as an overly-

¹⁵² Luoma, *Incarnation*, 65ff.

¹⁵³ Torrance, *GG*, 162.

¹⁵⁴ Torrance, *TS*, 26.

¹⁵⁵ Torrance, *TS*, 45-46.

immanent basis for theological knowledge that implies a limitation of God to that which God is toward humanity. For this reason, it is integral to Torrance's theology that God's external relations take their distinctive structure (that is the trinitarian pattern) from the internal relations of God's triune being. Importantly, this is not logically reversible. The internal relations of God are not dependent upon or shaped by his economic activity. Accordingly, Torrance's doctrine of God is characterized by the correlation, but not the logically reversible equivalence, of the ontological Trinity and the economic Trinity. Epistemologically, the significance of this is that human thought may be determined by the 'internal relations [of God] as they become disclosed to us through the incarnation',¹⁵⁶ without collapsing God into his relations to creation.

3.1. The Truth of God

Torrance's notion of the 'truth of God' introduces the basic premise of Torrance's Christology: the identity of God and his self-revelation. As with the truth of being above, the truth of God includes a double orientation between (i) that which God is in Godself and (ii) God's self-revelation.

The truth of God is that he is who he is and that he reveals who he is as he is. The truth of God is the self-subsistent being of God in which he is open to himself in his being he who he is, and in which he reveals himself to us as he is in his own reality. In himself God is only light. There is no darkness or deception in him. What God is towards men he is eternally in himself, and what he is in himself he is faithfully towards men.¹⁵⁷

The truth of God primarily concerns that which God is.¹⁵⁸ Beyond this, Torrance posited an identity between that which God is and that which God is toward humanity in his self-revelation. The truth of God is therefore that which God is in his own reality, given to be

¹⁵⁶ Torrance, *GG*, 151. See Molnar, *Theologian*, 31-36; P. Molnar, 'The Centrality of the Trinity in the Theology of Thomas F. Torrance', *Participatio: The Journal of the Thomas F. Torrance Theological Fellowship* 1 (2009), 82-94.

¹⁵⁷ Torrance, *TCFK*, 303.

¹⁵⁸ Torrance, *RET*, 122-124.

known through God's self-revelation. The identity of God with God's self-revelation must be understood in connection with Torrance's understanding of the *homoousion*.

3.2. *Homoousion*

The Nicene attribution of the *homoousion* to the Son describes the identity of the nature of God the Father and God the Son. Torrance understood this credal affirmation to assert that God's revelation through Jesus Christ is identical with God's self. For Torrance, that the Son is God as the Father is God means that God reveals himself through himself,¹⁵⁹ and so God's revelation is a self-revelation.¹⁶⁰

Torrance argued that to describe Jesus Christ as *homoousion* with the Father meant that God's revelation through Jesus is grounded in the being of God.

What the [*homoousion*] did was to give decisive expression to the truth that God's revelation of himself as Father, Son and Holy Spirit in the incarnate economy of salvation was grounded in and derived from God as he is in his own eternal Being and Nature.¹⁶¹

On the grounds of the identity of nature between the Father and the Son, Torrance argued that God's self-revelation is positively grounded in the eternal being of God. In this way, Torrance held God's act of self-revelation through the Son is identical with his being. This is supplemented by Torrance's discussion of the twin expressions he took from Athanasius: *enousios logos* and *enousios energeia*.¹⁶² Together these terms identify that God's speech and act are not empty but are the very expressions of the being of God because they are inherent to the being of God. The *homoousion* identifies that the *Logos* of God inheres in the being of God, and therefore 'when God makes himself known to us in and through Christ we are given to know God in his own inner being and intelligibility

¹⁵⁹ Torrance, *Reconciliation*, 222, 224-226; *TF*, 72; *GG*, 151.

¹⁶⁰ T.F. Torrance, *Trinitarian Perspectives: Toward Doctrinal Agreement*, Edinburgh: T&T Clark, 1994, 24.

¹⁶¹ Torrance, *CDG*, 80.

¹⁶² Torrance, *TF*, 131.

or *Logos*'.¹⁶³ In the same way, the act of God in the incarnate Son is shown to be integral to the being of God such that what God does in his outward relations to humanity is identical with that which God is.¹⁶⁴

Torrance attributed great epistemological significance to the *homoousion*, arguing that it is on account of the *homoousion* that human knowledge of God can be positively and ontologically controlled by that which God is. Torrance's estimation of the epistemological significance of the *homoousion* is well demonstrated by Torrance's assessment of the implications of Arian Christology. Torrance argued that Arius' Christology engendered a theological approach in which knowledge of God was not finally established upon that which God is in God's self.¹⁶⁵ To differentiate between Jesus and the Father pertaining to nature would mean that 'theology in the proper sense is impossible, and there can only be mythology',¹⁶⁶ with mythology understood to be the projection out from the self-understanding of humanity onto the divine.

If we try to reach knowledge of God from some point outside of God, we cannot operate with any point *in God* by reference to which we can test or control our conceptions of him, but are inevitably flung back upon ourselves. Even if we relate God negatively to what we are in ourselves, we are nevertheless quite unable to escape using ourselves as some sort of measure for what we think and say of him.¹⁶⁷

So far as Torrance was concerned, with his insistence on the priority of the actuality of the knowledge of God through Jesus Christ, a Christology that separates Christ from God leads to theological statements without any ontic correlate.¹⁶⁸ The inevitable result of this, according to Torrance, is to bring about the transfer of the power of intelligibility away from the reality and to the inquirer, such that the significance of theological statements is

¹⁶³ Torrance, 'Theological Realism', 187.

¹⁶⁴ Torrance, *TF*, 73; *Reconciliation*, 225, 231-239.

¹⁶⁵ Torrance, *Reconciliation*, 236.

¹⁶⁶ Torrance, *Reconciliation*, 240; *Meaning*, 289; *TF*, 47f, 69ff. Luoma, *Incarnation*, 32-33.

¹⁶⁷ Torrance, *TF*, 51.

¹⁶⁸ Torrance, *Reconstruction*, 39, 48, 261.

not derived from the object of inquiry, but rather from humanity.¹⁶⁹ Conversely, the *homoousion* means that what God is toward humanity in Jesus Christ, so God is in himself.¹⁷⁰ Epistemologically, in Torrance's estimation, the *homoousion* provides a basis upon which theological knowledge is ontologically determined by the internal reality of God.¹⁷¹

Torrance's account of the *homoousion* has problems. First, it has been heavily criticized as a Barthian interpolation. Muller argues that Torrance has relied too heavily on Barth's analysis of the *homoousion* and by so doing has placed inappropriate emphasis upon the epistemological implications of the *homoousion*. The *homoousion*, Muller argues, is primarily orientated to soteriology and not to epistemology.¹⁷² As such, Muller contends that Torrance's claim that the *homoousion* means our knowledge is ontologically controlled by God is overdrawn. However, against Muller, Torrance did not stress the epistemological significance of the *homoousion* in the place of its soteriological importance, maintaining instead an emphasis on the salvific potency of the doctrine.¹⁷³ Moreover, Muller's view that the *homoousion* is primarily soteriological does not enjoy universal agreement in patristic scholarship. For example, Khaled Anatolios recognizes the epistemological significance of the *homoousion*.¹⁷⁴ Finally, Muller makes the mistake of evaluating Torrance's treatment of the *homoousion* on historical grounds. Radcliff has demonstrated that Torrance was not a patrologist, but rather a Reformed and evangelical

¹⁶⁹ Torrance, *Reconstruction*, 35.

¹⁷⁰ Torrance, *TF*, 145.

¹⁷¹ Torrance, 'Theological Realism', 190.

¹⁷² R.A. Muller, 'The Barth Legacy: New Athanasius or Origen Redivivus?', *The Thomist* 54.4 (1990), 673-704, 673-704. See also, J.D. Ernest, *The Bible in Athanasius of Alexandria*, Leiden: Brill, 2004, 13-18; D. Sarisky, "'T.F. Torrance on Biblical Interpretation', *International Journal of Systematic Theology* 11.2 (2009), 333-346, 343-344. See, K. Barth, *God in Action: Theological Addresses*, Eugene: Wipf and Stock, 2005, 13.

¹⁷³ Torrance, *TF*, 138f; *CDG*, 5. Seng, 'Epistemological Significance', 343; Colyer, *How to Read*, 78.

¹⁷⁴ K. Anatolios, *Athanasius: the Coherence of his Thought*, London: Routledge, 2006, 96-100, 116-125, 205-207.

theologian working creatively with the patristic material. By so doing, Radcliff argues that Torrance provided a perspective on patristic theology that draws out its implicit elements.¹⁷⁵

Second, it could be objected that the *homoousion* cannot account for the epistemological significance which Torrance attributes to it. Torrance argued that the identity of nature between God and his self-revelation means that our knowledge of God is controlled by that which God is in himself, and is therefore insulated from our mythological projections upon God, which are characteristic of theological methodologies that do not have such a direct ontological referent. However, the *homoousion* does not explicitly identify how the human subject receives God's self-revelation and so does not explain how humanity's rational response to God is determined by God's self-revelation. The objective actuality of God's self-revelation which is the major element of Torrance's understanding of the *homoousion* needs to be complemented by an account of how the conceptuality of humanity is determined by God's self-revelation. So, the positive connection between God and God's self-revelation needs to be held in coordination with other elements of Torrance's thought: the vicarious humanity of Jesus Christ through which God's self-revelation is subjectively received in our humanity and the epistemological relevance of the Spirit through whom humanity is united to the Son.¹⁷⁶

This notwithstanding, the *homoousion* is crucial for Torrance because Torrance applied the identity between God and his self-revelation in such a way that the outward

¹⁷⁵ Radcliff, *Torrance and the Church Fathers*, 54-57; J.R. 'T.F. Torrance in the Light of Stephen Holmes' Critique of Contemporary Trinitarian Thought', *Evangelical Quarterly* 86.1 (2013), 21-38, 23-24; T.F. Torrance, 'Thomas F. Torrance's Conception of the *Consensus Patrum* on the Doctrine of Pneumatology', *Studia Patristica* 17 (2013), 417-433, 433. See my discussion of this, A.J.D. Irving, 'Review, J. Radcliff, *Thomas F. Torrance and the Church Fathers: A Reformed and Evangelical Reconstruction of the Church Fathers*', *St Vladimir's Theological Quarterly*. Forthcoming, 2017.

¹⁷⁶ See below, 320 and 330-331.

relations of God are held in positive correlation to God's internal relations.¹⁷⁷ It is from this basis that theological thought is 'controlled from a centre in God and his inner triune relations as Father, Son and Holy Spirit'.¹⁷⁸

3.3. Ontological Trinity and Economic Trinity

The identity of nature between God and his self-revelation is complemented by Torrance's affirmation of the complementarity between the ontological Trinity and the economic Trinity:¹⁷⁹ God's internal relations as Father, Son and Spirit (the ontological Trinity) are the ground of the trinitarian structure of God's external relations to creation in the economy of salvation (the economic Trinity). Through this complementarity, Torrance sought to express the conviction that what God is outwardly toward humanity, so he is 'eternally in himself'.¹⁸⁰ It is on this basis that Torrance claimed that while knowledge of God began in the revealing acts of God in the incarnation of the Son, it is ultimately established in the 'ultimate ground in the eternal relations and distinctions within the one οὐσία of the Godhead'.¹⁸¹

Torrance's doctrine of God pivots on the co-ordination between the trinitarian structure of the economy of salvation and the ontological relations of God's triune being.¹⁸² Torrance appealed to the precedent for establishing this correlation in Clement and Athanasius of Alexandria and their affirmation that the act of God is rooted in his

¹⁷⁷ Torrance, *CDG*, 80. See also, Colyer, *How to Read*, 73-75, 360; Radcliff, 'Consensus Patrum', 418-419; Seng, 'Epistemological Significance', 345.

¹⁷⁸ Torrance, 'Theological Realism', 191.

¹⁷⁹ Torrance, *CDG*, 83-84, 90-91; *Meaning*, 213; *GG*, 158, 168.

¹⁸⁰ T.F. Torrance, 'Calvin's Doctrine of the Trinity', *Calvin Theological Journal* 25 (1990), 165-193, 193. P. Molnar, *Divine Freedom and the Doctrine of the Immanent Trinity: In Dialogue with Karl Barth and Contemporary Theology*, London: T&T Clark, 2002; Deddo, 'Onto-Relational', 124-125.

¹⁸¹ Torrance, *TF*, 305. G. Deddo, 'T.F. Torrance: The Onto-Relational Frame of His Theology', *The Princeton Theological Review* 14.2 (2008), 35-47, 37-40.

¹⁸² Torrance, *TF*, 38-39n69; *Reconciliation*, 252; 'Memoranda on Reformed Orthodox Relations', 11-14. See also D. Wendebourg, 'From the Cappadocian Fathers to Gregory Palamas: The Defeat of Trinitarian Theology', *Studia Patristica* 17.1 (1982), 194-199.

being.¹⁸³ On the other hand, Torrance was critical of what he perceived to be Gregory of Palamas' sharp distinction between God's essence and energies, which he considered to posit a damaging distinction between God's being and his act. However, Torrance's reading has since been challenged, with the suggestion that he has misunderstood the relation between God's being and act in the essence-energies distinction.¹⁸⁴

The force of the correlation between the ontological Trinity and the economic Trinity in Torrance's theology is intended to show that God's self-revelation is ontologically moored in that which God is in himself.¹⁸⁵

It is distinctive of Christian theology that it treats of God in his relation to the world and of God in his relation to himself, not of one without the other. If it did not include the former, we who belong to the world could have no part in it, and if it did not include the latter, it could be concerned only with a "knowledge of God" dragged down and trapped within the world and our relations with it.¹⁸⁶

God's relation to creation cannot be isolated from God's relation to himself, or else God's outward relations would be understood within a creaturely frame of reference alone. It is integral to Torrance's position, that God's revelation is a self-revelation through Jesus Christ. It is on this basis that God's outward relations are determined by God's internal relations.¹⁸⁷

However, Torrance did not conceive of the relation of the ontological Trinity and the economic Trinity as a reversible relationship. Through this nuance, Torrance sought to stress that God's self-revelation within creaturely reality does not entail the 'imprisoning of his eternal trinitarian relations within the space-time processes of our

¹⁸³ T.F. Torrance, 'The Implications of Oikonomia for Knowledge of God and Speech of God in Early Christian Theology' in *Oikonomia: Heilgeschichte als Thema der Theologie: Oscar Cullmann zum 65 Geburtstag gewidmet*, ed., Felix Christ, Hamburg: Herbert Reich, 1967, 223-238, 238.

¹⁸⁴ E. Timiadis, 'God's Immutability and Communicability', in *Theological Dialogue Between Orthodox and Reformed Churches: Volume One*, ed. T.F. Torrance, Edinburgh: Scottish Academic Press, 1985, 21-49; S. Tanev, 'The Concept of Energy in T.F. Torrance and in Orthodox Theology', *Participatio: The Journal of the Thomas F. Torrance Theological Fellowship* 4 (2013), 190-212.

¹⁸⁵ Torrance, *CDG*, 1, 28-30, 115.

¹⁸⁶ Torrance, *RET*, 21.

¹⁸⁷ Torrance, *RET*, 22-23.

creaturely world',¹⁸⁸ for neither creation nor the incarnation are necessary to the being of God.

we cannot think of the ontological Trinity as if it were constituted by or dependent on the economic Trinity, but must rather think of the economic Trinity as the freely predetermined manifestation in the history of salvation of the eternal Trinity which God himself was before the foundation of the world, and eternally is.¹⁸⁹

Torrance's nuanced assessment of Rahner's identity between the economic Trinity and the ontological Trinity is indicative of this. While Torrance welcomed Rahner's stress that God's revelation is a self-revelation, he was reticent with regard to Rahner's statement that the economic is the ontological Trinity and *vice versa*. In Torrance's view, the correspondence between the economic and ontological Trinity 'may not be construed in a logically necessary or reversible way',¹⁹⁰ for to do so would be to compromise the freedom of God from his self-revelation, blurring the distinction between human understanding of God and God himself.¹⁹¹ Torrance's point is that if the economic Trinity shares the same relation to the ontological Trinity as the ontological Trinity does to the economic Trinity then God's freedom from creation is compromised for God's outward relations are found to be constitutive of his internal relations. To correct this, Torrance focused not on the identity of the economic Trinity and the ontological Trinity, but on the determination of the former by the latter. In this way, the distinction between them is retained alongside their correspondence.

under the creative impact of his self-revelation the trinitarian pattern of his internal relations becomes imprinted upon the series of saving events proclaimed to us in the Gospel, and upon our knowing and speaking of him under the constraint of his three-fold manifestation in those events as Father, Son and Holy Spirit.¹⁹²

The threefold structure of the economy of salvation cannot be divorced from its ontological moorings and interpreted solely at the level of the relationship between God

¹⁸⁸ Torrance, *CDG*, 108.

¹⁸⁹ Torrance, *CDG*, 109.

¹⁹⁰ Torrance, *CDG*, 200.

¹⁹¹ Torrance, *TP*, 79-88, 100-102.

¹⁹² Torrance, *CDG*, 82.

and creation.¹⁹³ In taking this position, Torrance affirmed that the doctrine of the Trinity is not the Neo-Protestant ‘interpretation of subjective states’,¹⁹⁴ which Torrance found in Schleiermacher’s positing of God as the co-determinant of our feeling of absolute dependence, reducing theological statements to ‘accounts of “religious affections set forth in speech”’.¹⁹⁵ Torrance’s point is that the trinitarian structure of God’s self-revelation is not arbitrary or imposed upon revelation from the human subject, but rather is determined by God’s internal relations.¹⁹⁶

By stressing the correspondence between the economic Trinity and the ontological Trinity instead of their equivalence, Torrance sought to protect the determination of the trinitarian structure of revelation from the actual being of God, without collapsing the distinction between them. From this basis, Torrance established some foundational girders of his theological epistemology.

It is, then, in the activity of the economic Trinity alone that we may learn something of the ontological Trinity, for we believe that the pattern of coactivity between the Father, Son and the Holy Spirit in the economic Trinity is through the Communion of the Spirit a real reflection of the pattern of the coactivity of the Father, the Son and the Holy Spirit in the ontological Trinity. It is indeed more than a reflection of it, for it is grounded in it, is altogether inseparable from it, and actually flows from it.¹⁹⁷

The economic activity of God is a ‘reflection of the pattern’ of the triune relations in the ontological Trinity, and therefore, it is through the economic Trinity that we may know God as he is in his internal relations. Several points of importance should be noted.

First, even though the economic activity of God is grounded ultimately on God’s internal relations, the economic activity of God cannot be jettisoned in the attempt to know God as he is in himself. Torrance did not have in view a Platonic model of

¹⁹³ Torrance, *RST*, 67.

¹⁹⁴ Torrance, *TS*, 31.

¹⁹⁵ Torrance, *GR*, 106. Citing F. Schleiermacher, *The Christian Faith*, Edinburgh: T&T Clark, 1928, 17f.

¹⁹⁶ Torrance’s understanding of the divine persons and the being of God are both connected to Torrance’s conception of onto-relations. Each person is constituted by their relations, such that the divine persons are what they are in being for one another. See Torrance, *CDG* 124, 155-157, 166.

¹⁹⁷ Torrance, *CDG*, 198.

penetrating beyond the mundane to the intelligible. Instead, the basic experience of God's revealing and saving activity within the Church contains within it an 'incipient theology', that is an un-formalized knowledge of God which extends beyond what could ever be expounded.¹⁹⁸ Torrance was clear that this experiential level was not to be graduated beyond, but rather analysed to expose its inner connections and regularities.¹⁹⁹

Second, the correspondence between the economic and the ontological Trinity is established through the mechanism of a reciprocal 'pattern'. God's outward act is determined by God's internal relations, which is the ultimate structure from which God's economic activity takes its discernible trinitarian pattern.²⁰⁰ The internal relations of the Godhead are the inherent pattern that determines the character of God's self-revelation.²⁰¹ Accordingly, God's economic activity is characterized by a trinitarian pattern on account of the archetype of God's triune being. Thus the economic order of salvation from the Father through the Son and by the Spirit is correlated to the inherent order of the trinitarian relations.²⁰²

It should be recognized that Torrance's attempt to establish correspondence without equivalence through the mechanism of proportional structure via the determination of God's outward relations by God's internal relations is not without significant problems. Primarily Torrance's account of the internal divine processions does not correspond to the economic order of the divine persons. Torrance held the appellation 'Father' to be equivocal even with reference to God alone. 'Father' could refer to the *hypostasis* of God the Father, or to the being of God.²⁰³ From this basis, Torrance argued that the Nicene parenthesis that the Son is out from the being of the Father (τοῦτέστιν ἐκ

¹⁹⁸ Torrance, *CDG*, 89-90.

¹⁹⁹ Torrance, *CDG*, 90-91.

²⁰⁰ Torrance, *CDG*, 57-58.

²⁰¹ Torrance, *Reconciliation*, 251.

²⁰² Torrance, *CGD*, 42.

²⁰³ Torrance, *CDG*, 140.

τῆς οὐσίας τοῦ Πατρὸς) does not mean Father as person, but rather Father as being (i.e. that the Son is generate from the very Godhead).²⁰⁴ As Dean notes, for Torrance, the ‘original source and primary location of God’s Being is not confined to the Father’s Person. Indeed, Monarchy is located in the Being of God that is at once One and Three’.²⁰⁵ In so doing, Torrance’s point is (i) to not import ontological gradation between the Son and the Father for the supreme source of unity and differentiation is not the person of the Father, but the triune being of God itself,²⁰⁶ and (ii) to describe the being of God itself as a ‘fellowship-creating or communion-constituting Being’,²⁰⁷ which carries significant implications for the doctrine of creation.

For this, Torrance has come under sustained criticism. Some argue that Torrance has not responded to the actual Cappadocian doctrine of *Monarchia*, but rather its reformulation through Fr. John Zizioulas.²⁰⁸ Others suggest Torrance has obscured the basis on which actual differentiation between the persons can meaningfully be maintained.²⁰⁹ However, in my view, the most pressing problem is that Torrance’s approach risks inserting a dualism between the taxis of the intra-divine relations and the taxis of the extra-divine relations. In the economy, the Son is sent out from the Father. If the Son is held to be generate from the being of God then the correspondence is interrupted, and the pattern of the internal triune life is not the pattern of God’s economic

²⁰⁴ Torrance, *CDG*, 141; *TF*, 78-79; 218; ‘Trinitarian Foundation’, 86-91; ‘Calvin’s Doctrine of the Trinity’, 181-186; *TP*, 29-32 112-113, 125-126, 137-139.

²⁰⁵ B. Dean, ‘Person and Being: Conversation with Thomas F. Torrance about the Monarchy of God’, *International Journal of Systematic Theology* 15.1 (2013), 58-77, 61.

²⁰⁶ Torrance, *CDG*, 181.

²⁰⁷ Torrance, *CDG*, 124.

²⁰⁸ N. Asproulis, ‘T.F. Torrance and John Zizioulas on the Divine *Monarchia*: The Cappadocian Background and the Neo-Cappadocian Solution’, *Participatio: The Journal of the Thomas F. Torrance Theological Fellowship* 4 (2013), 162-189, 162-189; Dean, ‘Person and Being’, 58-77; M. Baker, ‘Interview: Protopresbyter George Dion. Dragas Regarding T.F. Torrance’, *Participatio: Journal of the Thomas F. Torrance Theological Fellowship* 4 (2013), 30-46.

²⁰⁹ C. Gunton, ‘Being and Person: T.F. Torrance’s Doctrine of God’ in *The Promise of Trinitarian Theology: Theologians in Dialogue with T.F. Torrance*, ed. E.M. Colyer, Lanham: Rowman and Littlefield Publishers, 2001, 115-138, 120-122 130-131; Dean, ‘Person and Being’, 72-74.

activity with deleterious implications for theological knowledge as Torrance envisioned it.

Third, the economic activity of God is ‘inseparable’ from the ontological Trinity, and ‘actually flows from it’.²¹⁰ For Torrance, the economy of God’s self-revelation is determined by the triune being of God. Torrance asserted that the ‘historical manifestations’ of God in his outward activity upon creation must be understood as intending beyond themselves to their ontic pattern, because they are derived from the ontological base of God’s internal relations.

Torrance’s point is that the inherent pattern of God’s internal relations is the basic and irreducible foundation and source of God’s self-revelation. It is in this sense that Torrance’s notion of God’s triune relations as the ‘ground and grammar of theology’ should be understood.

3.4. The ‘Ground and Grammar’ of Theology

Torrance asserted that the internal relations of God are the ‘ground and grammar’ of theology.²¹¹ This means that the trinitarian structure of theology is ultimately determined by the ontological Trinity disclosed through the economic Trinity.

I myself like to think of the doctrine of the Trinity as the *ultimate ground* of theological knowledge of God, the *basic grammar* of theology, for it is there that we find our knowledge of God reposing upon the final Reality of God himself, grounded in the ultimate relations intrinsic to God’s own Being, which govern and control all true knowledge of him from beginning to end.²¹²

This raises three issues of importance.

²¹⁰ Torrance, *Reconciliation*, 251.

²¹¹ Miller, ‘Participation’, 70-76, 125-143

²¹² Torrance, *GG*, 158-159. See also, Morrison, *Self-Revealing*, 214-221; Miller, ‘Participation’, 111-125.

First, Torrance, described the doctrine of the Trinity as the ‘ultimate ground’ of theological knowledge. By the notion of ‘ground’, Torrance appears to appeal to a foundational basis upon which concepts can be established. In modifying it through the adjective ‘ultimate’, Torrance asserted that the doctrine of the Trinity is the final foundation of theological thought.

Second, Torrance described the doctrine of the Trinity as the ‘basic grammar’ of theology. By grammar, Torrance draws upon the notion of the rules and structure of language which govern the meaning of any communication. In this way, Torrance identified the triune being of God as containing the irreducible laws that govern the meaning and structure of all derivative theological thought and speech.

Third, the reason that the doctrine of the Trinity takes these two functions is that in the doctrine of the Trinity human knowledge of God is determined by the reality of God as he is in himself. As such, the doctrine of the Trinity is grounded in God’s internal relations, which constitute the grammar which ‘govern and control’ our knowledge of God.

The governance of human theology by the triune being of God is a point Torrance made very clearly in his essay toward a joint statement on the doctrine of the Trinity between the Orthodox and Reformed Churches.²¹³ In this essay, Torrance aimed to establish ecumenical discussions upon the precedent of the theological method of Athanasius and Cyril of Alexandria. These theologians, Torrance argued, allowed the structure of their thought to be governed by the trinitarian structure of God’s self-

²¹³ Torrance, ‘Trinitarian Foundation’, 79-120.

disclosure. Accordingly, ecumenical theology requires the 'knowledge of God [to be] grounded and controlled by what God is in himself as Father, Son and Holy Spirit'.²¹⁴

[The Trinity] constitutes the foundation of the Church's faith and provides it with its inherent controlling structure. The unity and community of being and operation within the Holy Trinity and in all the economic acts of the Holy Trinity toward us and for our sake in revelation and salvation, which gave rise to the Church as the communion of people in the world conconcorporate with Christ, means that all the doctrines of the Church's faith are basically Trinitarian in their character and pattern they take their essential truth and form from the consubstantial communion of Father, Son and Holy Spirit in the one indivisible Trinity. That is the framework within which we must seek to elucidate the intrinsic structure of the faith and the nature of authority in the Church.²¹⁵

The triune being of God determines the trinitarian structure of the economic activity of God and second of human theology through God's economic activity.

First, the internal relations of God constitute the fundamental pattern which is the basis for the trinitarian structure of God's economic activity. The order of the ontological Trinity is the ontological basis of God's economic relations.²¹⁶ For example, Torrance argued that Athanasius developed a theological method which probes into the intrinsic logic of the subject-matter of theology, as opposed to abstracting God's activity away from God's inner relations.

Second, the structure of human theology is determined through the economic activity of God which derives its trinitarian structure from the internal relations of God.²¹⁷ As such, the trinitarian structure of Christian theology is determined by the triunity of God's being through the trinitarian structure of God's self-revelation. It follows, therefore, that the triune being of God is the 'inherent controlling structure' of theological knowledge.

²¹⁴ T.F. Torrance, *Theological Dialogue between Orthodox and Reformed Churches: Volume One*, Edinburgh: Scottish Academic Press, 1985, 80; GR, 112-134.

²¹⁵ Torrance, *Dialogue*, 1.81-82.

²¹⁶ Torrance, *Reconciliation*, 255-256, 260-261, 264-265; RST, 86-88. B. Myers, 'The Stratification of Knowledge in the Thought of T. F. Torrance', *Scottish Journal of Theology* 61.1 (2008), 1-15', 11-12.

²¹⁷ See also, Molnar, *Theologian*, 31-36, 72-79; Habets, *Transposition*, 148-152; Dean, 'Person and Being', 64-65; A.J. Torrance, 'Assessing T. F. Torrance in Dialogue with Paul Molnar', *A Journal for the Theology of Culture* 8.2 (2012), 77-79, 77-78.

On account of this, the knowledge of God is not characterized by the imposition of intelligible form from the side of the organizing structure of the human mind, but rather the integration of the trinitarian structure of God's self-revelation determined by God's triune being into the logical connections of our conceptual structures. In this way, the rational structure of theology falls under the determination of the inner structure of the triune being of God.²¹⁸ The doctrine of the Trinity is a human conceptual construct derived from intuitive apprehension of God in his threefold self-revelation, which takes its own threefold structure from the interior relations of God's triunity.²¹⁹

3.5. Stratification and the Doctrine of the Trinity

The notion that the triune being of God is the ground and grammar of theology is best understood in connection to Torrance's stratified account of theological knowledge. Through presenting his theological approach in terms of stratified structure, Torrance demonstrated that the logical connections between theological statements that constitute the rational structure of theological systems are determined by the actual connections in God's self-revelation and triune being.

The lowest stratum is the level of humanity's encounter with God's self-revelation. This stratum is under the marginal control of God's economic activity. As such, the first stratum contains within it a pattern that reflects the pattern of the Economic Trinity. Likewise, the second level (the economic Trinity) is under the marginal control of the stratum immediately above it (the ontological Trinity). The trinitarian structure of the Economic Trinity, therefore, is traced to the inner relations of God. In this fashion the

²¹⁸ Torrance, *CDG*, 76.

²¹⁹ Torrance, *RST*, 161; *GG*, 147-148. See also, Miller, 'Participation', 70-76, 111-132; Habets, *Transposition*, 29-39; McGrath, *Intellectual*, 169ff; D.O. Eugenio, *Communion with the Triune God: The Trinitarian Soteriology of Thomas F. Torrance*, Eugene: Pickwick Publications, 2014, 1-30; Myers, 'The Stratification of Knowledge', 1-15, esp. 11; Molnar, *Theologian*, 31-36; Colyer, *How to Read*, 361-362.

experience of the believer is ultimately governed by the ontological Trinity through the economy, and so theological formalisation in the doctrine of the Trinity is finally determined by the triune being of God.

The first stratum is the doxological and evangelical level.²²⁰ This is the level of the believer's intuitive encounter with God's self-revelation (the every-day experience of the Christian in reading Scripture, prayer and worship within the fellowship of the Church). At this first stratum, the triune nature of God is known in an implicit way. This is a pre-logical awareness of a threefold structure of God's activity towards humanity as Father, Son and Spirit.²²¹ Torrance identified this as 'incipient theology'.²²² At this stratum an inchoate knowledge of the Trinity is developed.²²³ This anticipatory insight is the basis of all subsequent inquiry as the believer seeks to form explicit and conceptual knowledge of God in his self-revelation. The first stratum is the necessary source of all theoretical conceptualizations at the higher levels of theological knowledge.²²⁴ Torrance insisted that the development of theological concepts is no more than the extension of the knowledge attained at the moment of tacit encounter,²²⁵ and therefore immediate experience remains of fundamental importance for Torrance as the preliminary insight into the internal order of the divine reality.

The second stratum is the theological level.²²⁶ At this stratum, the implicit threefold structure encountered at the first stratum is understood to be determined by God's trinitarian self-revelation, and brought to conceptual representation in the doctrine

²²⁰ Torrance, *GG*, 156-7; *CDG*, 88-91.

²²¹ Torrance, *CDG*, 82. See also, Myers, 'The Stratification of Knowledge', 6.

²²² Torrance, *CDG*, 89.

²²³ Torrance, *CDG*, 89.

²²⁴ Torrance, *TCFK*, 93.

²²⁵ Torrance, *RST*, 85.

²²⁶ Torrance, *GG*, 157; *CDG*, 91-98.

of the economic Trinity.²²⁷ At the second level, the pre-logical insight of the first level is not jettisoned but rather the subsidiary awareness of the threefold structure of revelation begins to be clarified,²²⁸ meaning that the trinitarian pattern which exercises marginal control over the threefold structure of human experience determines the rational structure of our concepts.²²⁹

The third stratum is the higher theological level.²³⁰ At this level, theological concepts have to do with the controlling set of relations of God's triune being. Just as the threefold structure of the first level was found to be established upon the trinitarian structure of God's self-revelation at the second level so also the trinitarian structure of God's self-revelation at the second level is established upon the triune relations immanent within God himself.²³¹ As such, at this stratum, the concern is with the 'deepest epistemological and ontological structure of our knowledge of God', which constitutes the 'basic grammar of all theological thought'.²³² The movement is from the economic Trinity to the ontological Trinity.²³³ As such, the economic Trinity is established ontologically upon that which God is in his own internal relations.²³⁴ God's internal relations constitute the controlling and determinative grammar of God's outward relations and so also of human experience and then human conceptualisation concerning God.

The main burden of this chapter has been to demonstrate the ontological basis of Torrance's synthetic mode of rationality. Crucially, the way in which something appears to the observer is determined by what reality is in itself, such that intelligible structure is inherent in phenomena. It is upon his conception of reality that Torrance established his

²²⁷ Torrance, *GG*, 157.

²²⁸ Torrance, *TCFK*, 93.

²²⁹ Habets, *Transposition*, 29-39.

²³⁰ Torrance, *GG*, 157-159; *CDG*, 98-107.

²³¹ Torrance, *GG*, 158.

²³² Myers, 'The Stratification of Knowledge', 9.

²³³ Torrance, *GG*, 158; *CDG*, 98.

²³⁴ Torrance, *CDG*, 94-95, 99; *GG*, 161.

unitary mode of rationality in which the theoretical activity of the human mind does not *impose* intelligible structure upon that which is experienced, but rather it *exposes* an intelligible structure that is inchoate to phenomena.

Chapter 2

Objectivity

Torrance's version of objectivity is positively correlated to his conception of reality. For Torrance, the determination of the rational structure of our conceptual representations by the intrinsic intelligibility of the object through phenomena is at the heart of objectivity. The way Torrance sought to achieve this was the natural synthesis of the empirical and theoretical elements of knowledge (an empirico-theoretical objectivity). In this proper co-operation, our mental representations (the theoretical component) come under the determination of the intrinsic intelligibility of reality through experience (the empirical component). It is through this proper co-operation that the intrinsic intelligibility of reality determines the rational structure of human thought, such that the actual structure of reality determines the rational structure of our concepts concerning it.

The first section of this chapter introduces 'object-making' thought, identifying this as antithetical to Torrance's proposed objectivity. The dominant characteristic of object-making thought is a twofold dualism: (i) a dualism between the subject and the object which provoked (ii) a dualism (in terms of an artificial relation) between the empirical and the theoretical components of knowledge. In Torrance's view, this artificial relation between the empirical and theoretical elements arose from a self-defeating attempt to diminish the subjective elements of knowledge through the imposition of a rigid and absolute rational schema upon phenomena so to provide uniform concepts that overcame the variability of subjective experience. The result was the abstraction of

experience from its natural structure and the imposition of an alien intelligibility upon experience from the side of the knowing subject, the archetypal example of which is found in Kant.

The second section of this chapter explores the synthesis of the empirical and theoretical elements of thought in Torrance's version of objectivity. It is argued that Torrance's empirico-theoretical objectivity has two perspectives.

The first perspective is the determination of the rational structure of our theoretical representations by the actual structure of reality through experience. This first perspective means that the rational structure of our theoretical representations is governed by the actual structure of reality, known through experience. This perspective is the principle subject-matter of the correlation established between Torrance's synthesis of rational structure and material content and his proposal for NT. A detailed analysis of the mechanics of exactly how Torrance understood our conceptual logical connections to be determined by the actual connections in reality, however, is the subject of the next chapter.

The second perspective is the formulation of 'ultimate beliefs' about reality, which are objectively determined by reality and normative for subsequent inquiry into reality. This second perspective means that the empirical elements of knowledge are interfused with theoretical elements from the very beginning. This perspective is not the principle subject-matter of this thesis, but is important to the way in which Torrance sought to justify his epistemic approach.

These two perspectives constitute Torrance's unitary approach to objectivity. This approach is unitary in that it holds together the empirical and theoretical elements of knowledge, whereby a thing is known out of its own internal structure through the way it

appears to the observer. With regard to the first perspective, Torrance's proposal means that through experience conceptual representations can be developed which are constituted by a series of mental connections that are determined by the ontic structure of reality. For Torrance, it is experience, and not absolute, *a priori* axioms, that gives the postulates for deductive reason, whereby the rational structure of our theoretical representations is determined by the actual connections in reality.

With regard to the second perspective, our interaction with experience is shaped from the beginning by the ontologically determined framework of thought. In this connection, an important feature of Torrance's empirico-theoretical synthesis is the collaborative account of the subject-object relation. In stark contrast to the object-making mode of thought of which Torrance is so critical, Torrance did not posit a dichotomy between the subject and object through which the subjective elements of knowledge are diminished through the application of a universal and absolute structure of thought. Instead, Torrance attempted to give a positive account of the subjective element of knowledge as vital to true objectivity.

1.0. 'Object-Making' Thought: The Imposition of Intelligibility

In Torrance's thought, object-making thought is antithetical to true objectivity. Object-making thought is Torrance's term to describe ways of knowing that are characterized by the active imposition of intelligibility upon phenomena in cognition. The dichotomy between the subject and object underlies object-making thought. On account of this dichotomy, the structure of conceptual representations is not formed under the determination of the intelligible coherence of the object, but rather a cognizable structure with its provenance in the organizing and regulating power of the human mind is impressed upon sensible data. So, in contrast to Torrance's unitary vision for objectivity,

object-making thought is dualistic in that (i) it posits a dichotomy between the epistemic subject and object, and (ii) it operates with a disjointed and artificial relationship between the empirical and theoretical elements of knowledge.¹

Torrance described what he meant by object-making thought in the essay ‘Theological Rationality’ (1971).²

Objective thinking lays itself open to the nature and reality of the object in order to take its shape from the structure of the object and not to impose upon it a structure of its own prescription. Objectifying or object-making thought, however, is the antithesis of this, for in it ‘we make and mould’ our object of knowledge out of the stuff of our consciousness. It is the activity in which a thing is ‘known’ only as it is coercively grasped and projected as an ‘object’ through an inflexible conceptual structure which, whether in its Newtonian or Kantian form, is regarded as conditioning the thing and establishing it as a knowable reality. Since the structure is not a determination of experience but is independent of it, it is beyond the possibility of criticism or modification by experience. Through it, therefore, objectifying thought imports a powerful element of subjectivity into the object and thereby necessarily limits the possibilities of knowledge in an arbitrary way. This means that no advance to radically new knowledge can take place without a profound change in the structure of the scientific consciousness, a change in which frame of thought basically correlated with the subject is turned inside out and correlated instead with the object, i.e. when objectifying thinking gives way to objective thinking.³

Four points should be noted from this description. The second point is the heart of Torrance’s criticism of the artificial synthesis between rational structure and material content in object-making thought, and so there are further elaborative comments on this point.

First, object-making thought is antithetical to that which Torrance proposed is truly objective thought. For Torrance, objective thinking is that which seeks to take its rational structure from the actual intelligibility of the object. In true objectivity the logical structure of human knowledge is governed by the coherence that is internal to the object. By contrast, object-making thought is that which governs the object of knowledge by the mental faculties of the knower such that the object is determined in accordance with a pre-determined schema of thought.

¹ Torrance, ‘Notes and Comments’, 136.

² Torrance, *GR*, 3-25.

³ Torrance, *GR*, 9-10, 92, 116, 188.

Second, object-making thought functions through an inert and pre-determined rational structure that is imposed distortingly upon experience,⁴ such that phenomena are abstracted from their natural coherence and organized in accordance with this extrinsic rational structure.⁵ Torrance identified this rational structure as ‘inflexible’, meaning that it is absolute. This means that the rational structures exercises influence upon phenomena with no counter-influence being exerted upon it. Elsewhere, Torrance referred to this form of objectivity as ‘methodological objectivity’.⁶ This is when an absolute regulatory schema is established as the ‘rigid support and scaffolding for all scientific concepts’,⁷ through which an artificial harmony is achieved from the plethora of subject-dependent perspectives. Methodological objectivity, therefore, is the means through which the variability of experience is normalized into universal and stable knowledge, through the imposition of an absolute rational structure.

In this connection, Torrance understood object-making thought to have arisen from a dualism between the subject and the object predicated upon a deep-lying dualism between appearance and reality in the physical sciences of the early Enlightenment. Owing to the absence of a correspondence between appearance and reality, the subjective was associated with the private and variable and the objective was associated with the universal and constant. Torrance traced this to Galileo’s distinction between the primary qualities of reality that are the constant characteristics of reality in itself and the secondary qualities that are variable because they are grounded in the fluctuating

⁴ Torrance, *TS*, 93.

⁵ See Achtemeier, ‘The Truth of Tradition: Critical Realism in the Thought of Alasdair MacIntyre and T.F. Torrance’, *Scottish Journal of Theology* 47.3 (1994), 355-374, 363-364, 371.

⁶ Torrance, *TCFK*, 74.

⁷ Torrance, *TCFK*, 74.

perceptions of different observers,⁸ in which secondary qualities needed to be held in correlation to the primary so to attain regularity and stability in knowledge.

Following this technique of the physical sciences, Torrance claimed that trans-subjective uniformity was achieved in knowledge by the imposition of a universal and absolute framework that regulated the variable appearances in accordance with an inert structure giving the impression of robust and uniform knowledge. Such an approach, Torrance argued, requires a detached subject who could distinguish between their own perception and the actual knowledge attained by analysing experience through the absolute, regulatory schema.⁹ A powerful example of this is Torrance's analysis of Newton's distinction between absolute time and space and relative time and space.¹⁰ For knowledge to be objective, it was held that knowledge must be universally applicable across different observers,¹¹ but relative time and space refers to the appearance of reality that is relative to the subject. Accordingly, absolute time and space were posited so to 'constitute one universal inertial system which conditions all things',¹² by which subjective elements in knowledge could be overcome and 'universally valid' conceptions of reality could be reached.¹³ In other words, Torrance understood Newton's distinction between absolute and relative time and space to constitute an attempt to harmonize phenomena by erasing the subjectivity of how things appear by imposing a cognizable order upon phenomena through the application of an absolute theoretical structure so to provide knowledge that is irrespective of observers.¹⁴

⁸ Torrance, *TCFK*, 8.

⁹ Stevick, 'Kata Physin', 75.

¹⁰ Torrance, *TCFK*, 13.

¹¹ Torrance, *TCFK*, 75.

¹² Torrance, *TCFK*, 21.

¹³ Torrance, *TCFK*, 21, 20.

¹⁴ Torrance, *TCFK*, 20.

Epistemologically, Torrance's major concern with Newton's proposal is that it built into modern thought the concept of inertia, where absolute constants are employed as static parameters in accordance with which rational form can be cognized.¹⁵ Instead of understanding reality from its own internal coherence through the way it appears to the subject, experience is schematized according to an antecedent and absolute conceptual system.

So far as Torrance was concerned, Kant is the paradigmatic example of this. While Torrance was cognisant of the impact of Humean scepticism on Kant's thought, he argued that Kant's attempt to defend the possibility of trans-subjective knowledge was constructed along similar lines to Newton's absolute-relative distinction.¹⁶

Kant retained the "absolute" or independent character of Newton's mathematical time and space, its character as an inertial system for the scientific determination of the atomic structure of nature, but he transferred it to the human understanding [...], to constitute the basic "forms of sensibility" which are independent of experience but regulative of our spatio-temporal apprehensions.¹⁷

Torrance's contention is that Kant attempted to assert the objective validity of sensory apprehension, not on account of the order inherent to reality, or even from a cognizable structure impressed on reality by external, *real*, inert parameters, but rather on account of the *a priori* elements of the formal structures of human understanding,¹⁸ through which regularity and laws were imposed upon phenomena.¹⁹ Torrance's position is similar to Strawson's influential criticisms, claiming that Kant transferred the absolute schema that organizes phenomena into the human mind itself.²⁰ In this connection, Torrance

¹⁵ Torrance, *CFM*, 25; *TCFK*, 27, 69; *TNS*, 66; *CTSC*, 23.

¹⁶ Torrance, *TCFK*, 37; *GG*, 26; *RST*, 16; *CTSC*, 19. See also, Colyer, 'A Scientific Method', 212.

¹⁷ Torrance, *TCFK*, 37.

¹⁸ Torrance, *TCFK*, 271.

¹⁹ Torrance, *RST*, 74; Torrance, *GG*, 25; *TCFK*, 271; Torrance, *GG*, 25.

²⁰ Strawson, *Bounds of Sense*, 38-42. Torrance, *GG*, 26; *RST*, 26; *TCFK*, 271.

understood Kant's categories of understanding to take the function of an absolute regulatory schema imposing cognizable form upon phenomena.²¹

Here we have a systematization of the notion that there is nothing in the mind but what is first in the senses, and a restriction of scientific knowledge to what can be demonstrated from observation or can be deduced from observational data through logical operations. This implied that concepts and relations of ideas with which scientific inquiry and formulation must operate do not derive from an intelligibility inherent in empirical reality, independent of our knowing of it, but from the built-in structures of our intuition and understanding.²²

In effect, Torrance's understanding was that Kant accomplished the transfer of intelligibility away from the object and to the subject in which the way things appear are clothed with coherence via the transcendental deduction.²³

In parallel with this is Torrance's criticism of closed deductive systems established on foundational axioms.²⁴ As is developed in the next chapter, Torrance resisted logical forms that isolated valid inference as the sole criterion of adequate thought. In this connection, Torrance was hostile to reasoning from *a priori* axioms. Axioms are fundamental truths that operate as the foundation for analysis (postulates) from which subsequent premises are inferred. *A priori* axioms are when these axioms are not empirically derived, and so give rise to deductive chains closed off from reality. Torrance's concern with this is that such conceptual analysis results in a system of mental connections that are wholly independent from the actual structure of reality, and can actually begin to exert extrinsic influence upon how reality is understood.

Torrance's critique of axiomatic thinking, particularly when held in relation to his critique of Kant, bears some correspondence to what Friedman calls the 'standard modern

²¹ Torrance, *TCFK*, 37, 38, 40; *CTSC*, 20. J.H. Gill, 'Dizzying Circularity: Review of *Theological Science*', in *The Christian Century*: 1969, July-Dec (October 29, 1969), 1386-1387.

²² Torrance, *RET*, 39-40.

²³ Torrance, *TCFK*, 38. See Munchin, *Is Theology a Science?*, 93.

²⁴ Torrance, *RST*, 92-93.

complaint' that Kant failed to distinguish between pure and applied geometry.²⁵ In this view, pure geometry is the study of logical connections between propositions within an axiomatic system involving no appeal to experience. For example, Majer has argued that for Kant geometry 'is in essence an *axiomatic* science, which means that it proceeds from *general statements* or principles instead of concrete immediately certain judgements'.²⁶ On the other hand, applied geometry concerns the soundness of axioms under an interpretation of experience. A rational structure constituted by a conceptual analysis of *a priori* axioms is antithetical to Torrance's empirico-theoretical objectivity. Torrance considered such an approach to constitute the prioritization of abstract, mental connections of our own creation over the actual structure of reality. For Torrance, to set *a priori* axioms as the foundational premises for an inferential chain is an arbitrary selection of a preferred rational schema to which reality is subsequently forced to conform.²⁷ This, Torrance argued, leads to the imposition of an artificial rational schema upon phenomena, leading to the distortion of our knowledge of the real world.²⁸ For Torrance, inferential reasoning must not be isolated from its material content of knowledge. This point will be returned to in the following chapter.

However, Friedman has questioned the validity of this entire line of criticism. Friedman has argued that the distinction between wholly formal logical systems and positive systems from empirical investigation was alien to Kant. Consequently, Friedman argues that to analyse Kant with a strong delineation between pure and applied geometry is reductive.²⁹ More problematically for Torrance's position, Friedman argues that such

²⁵ M. Friedman, 'Kant's Theory of Geometry', *The Philosophical Review* 94.4 (1985), 433-506, 455-456.

²⁶ U. Majer, 'Geometry, Intuition and Experience from Kant to Husserl', *Erkenntnis* 42 (199), 261-285, 272.

²⁷ Stevick, 'Kata Physin', 70. See also, T. Chung, *Thomas F. Torrance's Mediations and Revelation*, Farnham: Ashgate, 2009, 54.

²⁸ Torrance, *TCFK*, 76-77.

²⁹ Friedman, 'Kant's Theory of Geometry', 456-457.

an interpretation does not do justice to Kant's notion that geometrical reasoning is not purely by discursive reasoning, but is more complex, being constructed in pure intuition. As Freidman notes, this is demonstrated in the contrast Kant drew between the philosophical and the mathematical reasoning.

Philosophy confines itself to general concepts: mathematics can achieve nothing by concepts alone but hastens at once to intuition, in which it considers the concept *in concreto*, although still not empirically, but only in an intuition which it presents *a priori*, that is, which it has constructed, and in which whatever follows from the general conditions of the constructions must hold, in general, for the object of the concept thus constructed.³⁰

Kant's point is that the proof of the proposition (that the sum of the angles of a triangle = 180°) cannot be demonstrated by discursive reason alone. Instead, a construction must be made in pure intuition, extending the concept of the triangle in conceptual space through which an adjacent angle may be intuited so as to constitute the proof of the proposition. In other words, the proof of the proposition is through 'a chain of inferences guided by intuition',³¹ even if it is pure intuition and so *a priori*. While a full analysis of Torrance's interpretation of Kant is the work of a different thesis, the very least that must be said is that there are levels of complexity and nuance in Kant's system that are not reflected in Torrance's terse analysis. Still, it should be noted that Kant does appear to propose that the task of philosophy should be approached discursively, within the parameters of conceptual analysis, suggesting that, within a limited frame of reference, Torrance's critique retains some of its force.

Torrance's treatment of Kant in relation to his critical reflections on 'object-making thought' creates a strong association between Kant and a powerful form of subjectivity, in which empirical knowledge is constituted by a synthesis between intuition and understanding in which cognizable form is impressed upon phenomena. It has been

³⁰ Kant, *CPR*, B743-745. Cited from Friedman, 'Kant's Theory of Geometry', 458.

³¹ Kant, *CPR*, B 475.

noted that Torrance does not demonstrate awareness of contrary interpretations of Kant or contrary data in Kant's own work. There is every indication that Torrance appropriated a particular interpretation of Kant, and has conducted his own analysis within these parameters. Significantly, Torrance's reading bears parallels with that of Karl Barth:

Empirical knowledge is constituted by intuition (*Anschauung* – immediate perception) and the Understanding, the two forms of knowledge peculiar to human reason. Their object cannot be the 'thing-in-itself', that is a thing manifest to us in its essential nature; but is the thing as it is given and comprehended by these two forms of knowledge. Their object is *given* to us under the forms of space and time, so that its existence and characteristics become to us intuitively evident. We *comprehend* however its existence and characteristics by means of the Categories or forms of *Understanding* which correspond to the forms of intuition (the forms of space and time). By means of the Categories of the Understanding we attempt to think what we have intuited.³²

The themes in Barth's analysis correspond to those in Torrance's analysis of Kant: the (metaphysical) distinction between representation to our sensibility and comprehension through the categories, with the implication that there is no knowledge of the thing in itself, but only the thing as it is refracted and conferred with intelligible form by understanding. While Torrance did not attribute his reading of Kant to the influence of Barth, the evidence suggests that Torrance's understanding of Kant takes its place in an interpretative tradition which recent scholarship has called into question. This raises the concern that Torrance has adopted a particular understanding of Kant, against which he has established his own synthesis of rational structure and material content as an alternative to Kant. However, this is not a source-critical assessment of Torrance's reading of Kant. Consequently, Torrance's critique of Kant will be taken as a useful basis against which to understand Torrance's synthesis of rational structure and material content involving the reversal of the provenance of rational form in our conceptual representations.

³² K. Barth, *Protestant Thought in the Nineteenth Century: Its Background and History*, trans. B. Cozens and J. Bowden, London: SCM Press, 1972, 274.

Third, Torrance argues that in trying to overcome the variability of subjective experience, object-making thought has only succeeded in imposing absolute subjectivity upon reality by the prioritizing of an independent rational schema as the normalizing coordinate system from which to understand all experience. As the pre-determined rational structure exerts its influence upon phenomena (imposing intelligible form from without) without phenomena exerting any counter-influence upon the rational structure, Torrance understood object-making thought to take a profoundly subjective character, meaning that the subject manipulates the empirical data to render it cognizable.

Fourth, Torrance held that object-making thought establishes limitations around the possibilities of human knowledge. According to Torrance, to think by a pre-determined and absolute rational structure is to impose intelligible structure upon phenomena such that human thought is not contingent upon and open to the inner coherence of reality. Genuinely new knowledge of a type that was not cognizable within the established rational structure is impossible because in object-making thought all knowledge is determined in accordance to the antecedent rational structure, and not by open possibility to the nature of reality. Therefore no actual knowledge is possible in object-making thought. The intelligible order is not provided from the side of the object, but rather has its provenance from the side of the subject. According to Torrance, this means that a radical transition is required in how genuine knowledge is conceived.

In this description, Torrance has identified object-making thought as the imposition of intelligible structure from the side of the subject. Rather than the open possibility of knowledge formed under the determination of the internal intelligibility of reality, object-making thought is limited by the application of a rigid rational system.³³

³³ T.F. Torrance, *Preaching Christ Today: The Gospel and Scientific Thinking*, Grand Rapids: Eerdmans, 1994, 6.

However, Torrance did not advocate abandoning objectivity, but rather to reformulate what is meant by it.

2.0. Objectivity

At the core of Torrance's version of objectivity is the synthesis of the empirical and theoretical elements of knowledge. In Torrance's version of this synthesis, the rational structure of knowledge is governed by the intrinsic intelligibility of reality through phenomena. This constitutes Torrance's reversal of the mechanism of cognition in object-making thought, which he associated with Kant.³⁴

Torrance's understanding of objectivity is connected to his account of the transition from classical to relativistic physics and the way in which this has transformed approaches to cognition.³⁵ Paramount among Torrance's concerns is what he conceived to be the Maxwellian-Einsteinian recognition of reality as intrinsically intelligible such that empirical facts have to be interpreted in their own network of meaning, and from which the structure of our knowledge is derived.³⁶ In this way, Torrance understood the insight that space and time are integrated with matter in one four-dimensional continuum to provide the basis of a new form of objectivity in which the observational and conceptual elements of our knowledge are held together.³⁷ Similar themes are found in Torrance's treatment of the concept of objectivity.

Torrance defined objectivity as 'knowledge devoted to and bound up with its object'.³⁸ Torrance also described objective thinking as that which takes its 'shape from

³⁴ D.F. Kelly, 'The Realist Epistemology of Thomas F. Torrance' in *An Introduction to Torrance Theology: Discovering the Incarnate Saviour*, ed. G.S., Dawson, London: T&T Clark, 2007, 75-103.

³⁵ Torrance, *TCFK*, 265. Stevick, 'Kata Physin', 71-72.

³⁶ Torrance, *TCFK*, 42, 72-73, 216-217, 227-228, 247, 251; *TNS*, 39, 41; *RST*, 79; *DCO*, 12; *CFM*, 24.

³⁷ Torrance, *TCFK*, 73-75; *RET*, 40.

³⁸ Torrance, *TS*, 34.

the structure of the object', instead of imposing its own structure upon experience.³⁹ This is closely related to Torrance's view of rational thought as 'our ability to relate our thought [...] appropriately to objective realities. Reason is our ability to recognize and assent to what is beyond it'.⁴⁰ In Torrance's terminology, rational thought involves the capacity to think in accordance with the nature of reality and differentiate between our mental representations and the reality that so determined them.

From these brief comments, it is apparent that an important theme in Torrance's objectivity is the contrast between a rational structure imposed upon the object by the subject, and a rational structure imposed on the subject by the object. For Torrance, objectivity is thought that is determined by the object, and this takes place as the rational structure of our knowledge is determined by the actual structure of reality.⁴¹ This is a 'unitary' mode of thought in which, through experience, the noetic structure of our theoretical representations 'is conditioned and backed up by an ontic structure or intelligible basis in the object of knowledge'.⁴²

The priority of the ontic structure of reality over the rational structure of our knowledge in Torrance's objectivity has been described by Colyer who focusses on the integration of the intelligible form inherent in reality into human theoretical structures. The basic principle that Colyer exposes in Torrance's thought is that ontology takes precedence over epistemology.⁴³ For Torrance, appropriate concepts are developed under the determination of the intelligibility of reality.⁴⁴ In this connection, Colyer helpfully draws out that Torrance is concerned with integrating the form inherent in reality with

³⁹ Torrance, *GR*, 9.

⁴⁰ Torrance, *TS*, 11; *GR*, 52-53.

⁴¹ Torrance, *TCFK*, 88.

⁴² Torrance, *JLPL*, 25. See also, Lee, *Living in Union*, 17-20; Newell, 'Participatory Knowledge', 28.

⁴³ Colyer, *How to Read*, 322-323

⁴⁴ Colyer, *How to Read*, 323; T.F. Torrance, *The Nature of Doctrine in T.F. Torrance's Theology*, Eugene: Wipf and Stock Publishers, 2001, 18.

human thought. Pertaining to theology, Colyer demonstrates that theological doctrines in Torrance's method are developed under the determination of the intrinsic connections in God's self-revelation.⁴⁵ However, Colyer does not demonstrate how Torrance conceived of this taking place through the proper relation of intuitive and discursive reason,⁴⁶ and as such Colyer does not engage in any substantial way with the question of the subject-object relation. Consequently, Colyer's analysis leaves unexplained exactly *how* the rational form inherent in reality shapes the rational structure of conceptual representations.

More penetrative analyses than Colyer's introductory discussion of how Torrance conceived of the inherent structure of reality to determine the rational structure of our theoretical representations have been attempted. Some have elaborated on the ontological foundation of intrinsic intelligibility through which the inherent coherence of the object imposes itself upon the human mind.⁴⁷ Particularly insightful is the analysis of Miller, who has demonstrated that Torrance's objectivity involves the structure of human rationality being determined by the ontological order of reality itself, wherein the task of objective thought is to bring to light the inherent order in that which is experienced.⁴⁸ The point in focus in all such analyses is that the actual connections in reality determine the rational structure of our knowledge. However, the actual mechanism by which the implicit order of reality determines the rational structure of our knowledge is not addressed in these discussions.

Developing this theme, Newell has given an important analysis of the role of logic in Torrance's thought, where valid inference clarifies and gives formal articulation to that

⁴⁵ Colyer, *How to Read*, 362; *The Nature of Doctrine*, 18-19, 40.

⁴⁶ Colyer, *How to Read*, 323-340.

⁴⁷ Morrison, *Self-Revealing*, 77-98, 104-106, 123-132; McGrath, *Intellectual*, 220-228; Habets, *Transposition*, 29-39; 42-51.

⁴⁸ Miller, 'Participation', 61-67; 86-87.

which is intuitively known.⁴⁹ Newell has provided the basic trajectory subsequent studies should follow in demonstrating how Torrance attempted to unite the theoretical and empirical elements of knowledge. Newell has suggested that Torrance developed an *a posteriori* rational structure of cognition.⁵⁰ However, Newell has not made explicit that what is in view is the patterning of our logical connections to the actual connections in reality. Newell has broken the ground, and it is upon the trajectory set by his analysis that any development in our understanding of how Torrance sought to determine rational structure by the actual structure of reality (rather than simply repeating that this is so) will be achieved.

In the light of these discussions and the quotations from Torrance given above, it is possible to say that objectivity, as Torrance conceived of it, is the determination of the structure of our mental representations by the actual structure of reality. At first glance, this may be suspected as not accounting for the recognition of critical philosophy that the subject is an active agent in the knowing relationship. However, Torrance's formulation of objectivity pivots on two factors.

First, Torrance sought to hold together the priority of the actual connections in reality with the necessity for the logical connections which constitute the rational structure of human thought. For Torrance, on account of (i) the intrinsic intelligibility of reality and (ii) the close correspondence between reality as it is in itself and what it is to the observer, the ontic structure of reality imposes itself upon the rational structure of our concepts through experience.⁵¹ It is on this basis that the theoretical representations developed by humanity do not have a rational structure with a provenance in the human mind. Instead, the rational structure of knowledge is derived from the ontic structure

⁴⁹ Newell, 'Participatory', 47-52.

⁵⁰ Newell, 'Participatory', 10-14. See also, Spjuth, *Creation*, 105ff.

⁵¹ Torrance, *CFM*, 30-31.

actually in reality.⁵² In this sense, to prioritize the actual connections in reality does not imply the redundancy of our mental connections, and *vice versa*. Instead, our mental connections are drawn in coordination with the actual connections of reality.⁵³

Second, Torrance's formulation of objectivity relies on the capacity to justify the relationship between (i) the actual connections in reality and (ii) our mental connections in which the former determines the latter. Torrance's suggestion that objective thought takes its shape from the structure of the object does not mean the obviation of the subjective element, but rather implies (and exhibits) a careful distinction between the possible subject-matter of deductive reason. Torrance's proposal only makes sense if experience is the source of the coherence of our conceptual representations. The rational structure of thought is determined by the structure of reality when the logical connections of valid inference are shaped by the actual connections in reality known through experience.⁵⁴ The alternative would be for the rational structure of thought to be determined from *a priori*, foundational axioms.⁵⁵

Torrance described his version of objectivity in obscure terms, explaining that the theoretical component of our knowledge is formulated through empirical encounter with the object, such that it is the actual structure of reality that is the normative factor in accordance with which our theoretical frameworks are formulated.

The theoretical components of knowledge are not derived by abstractions from observations, but arise in our minds under the impress of objective relations in the field which we are investigating.⁵⁶

Torrance's point is that the theoretical element of knowledge is not constituted by an inferential chain from the conceptual analysis of foundational axioms. Instead, the

⁵² Torrance, *TCFK*, 88; *GR*, 94.

⁵³ Torrance, *TCFK*, 79.

⁵⁴ Torrance, *GR*, 93.

⁵⁵ Torrance, *CFM*, 29.

⁵⁶ Torrance, *TCFK*, 88.

theoretical elements of knowledge are in intimate connection with the empirical, and the theoretical element of our knowledge emerges organically out from an encounter with an intrinsically intelligible reality. This confluence of theoretical representations with experience constitutes Torrance's 'empirico-theoretical' approach to objectivity. Through this integration, our conceptual representations are determined by the intrinsic intelligibility of reality through experience. In this way, the rational form in reality imposes itself upon the rational form of our theoretical constructions.⁵⁷

There are two important perspectives to the synthesis of the empirical and theoretical elements of knowledge.

- (i) The determination of the rational structure of our theoretical representation of reality by the antecedent coherent structure of reality through phenomena.
- (ii) The objective determination of 'ultimate beliefs' by the impress of the ontological order of reality. These form our tacit theoretical commitments, which are the normative basis for subsequent inquiry.

The first is the perspective that is to be developed most fully in subsequent chapters and held in correlation to Torrance's proposals for natural theology. However, this first perspective is dependent on the second, and so some comments on the second are necessary. In both what is in view is the confluence of the theoretical and the empirical elements of our knowledge to the end that our knowledge of reality takes its structure from the actual structure of reality.

Together, these perspectives give some account to the role of the epistemic subject, which is a powerful element in Torrance's version of objectivity. The first perspective refers to the active role of the subject in forming logical connections under the determination of the actual structure of reality to facilitate the knowledge of reality

⁵⁷ Torrance, *CFM*, 30; *TCFK*, 74; *GR*, 89.

and also the continued disclosure of reality. The second perspective identifies that the empirical elements of our knowledge are never interpreted aside from preliminary ‘theoretical’ elements. The subject always approaches an object from within a framework of thought that determines how they interact with that object. In this, Torrance did not attempt to obviate the subjective element by generating an artificial rational structure through which experience could be harmonized. Instead, Torrance attempted to establish that the framework of thought is itself objectively determined.

In the remainder of this chapter, Torrance’s empirico-theoretical approach to objectivity is explored in greater detail through these two perspectives. First, the determination of the rational structure of our theoretical representations by the actual structure of reality through experience is considered through the equivalence in which Torrance held scientific and objective thought. Second, the intertwining of the empirical and theoretical elements of our knowledge in the subjective relation to reality is discussed through Torrance’s critical realism.

2.1. Scientific Objectivity: The Determination of the Rational Structure of Knowledge by the Actual Structure of Reality

Torrance posited that objectivity and ‘scientific’ thought are identical: ‘in all the sciences we refer our thought to what is external to ourselves and are devoted to objectivity: scientific knowledge and objective knowledge are one and the same thing’.⁵⁸ Torrance did not understand science in the reduced sense of the natural sciences.⁵⁹ Instead, Torrance considered science to be a disciplined knowledge orientated to knowing

⁵⁸ Torrance, *TS*, 295. See also, Torrance, *SF*, xxiv.

⁵⁹ Torrance, *GR*, 91.

‘something strictly in accordance with its own nature’.⁶⁰ For Torrance, ‘objective knowledge’ and ‘scientific knowledge’ are interchangeable.

2.1.1. The Priority of Actual Connections

An important aspect of Torrance’s conception of scientific thought is the priority of the actual connections in reality over our understanding of reality. Torrance claimed that reality is constituted by a network of relations, and these actual connections in reality exercise determinative influence over the knower. In this context, what it means for thought to be determined by the object is that the ‘pattern’ and ‘inner logic’ of reality exercises authority over our thought.⁶¹

Scientific knowledge is that in which we bring the inherent rationality of things to light and expression as we let the realities we investigate disclose themselves to us under our questioning and we on our part submit our minds to their intrinsic connections and order.⁶²

According to Torrance, to know scientifically is to allow the rational structure of our concepts to be determined by the ontic structure of reality. As reality has an intrinsic order, the formulation of scientific concepts cannot be understood as the imposition of order upon reality.⁶³ The laws of nature are not read into nature, rather they are discovered in it.⁶⁴

The notion of onto-relations is significant in this connection. On account of the fact that reality takes a distinctive structure shaped by its being-constituting relations, Torrance argued that reality cannot be known by artificially separating appearances from the ontic structures that underlie them.

⁶⁰ Torrance, *TS*, 116; ‘Science, Theology and Unity’, 150.

⁶¹ Torrance, *GR*, 92.

⁶² Torrance, *TS*, xi.

⁶³ Torrance, *CFM*, 30.

⁶⁴ Torrance, *CTSC*, 113.

By its nature [the complex order of onto-relations] is not the kind of order that can be grasped and expressed through abstracting its form, for that would disembody and destroy it, or through analytical breakdown of its dynamic structure, for that would transpose it into something quite different. It is not subject therefore to logical determination of formalization, for it must be apprehended in its own intelligible wholeness and its own interior power of organization.⁶⁵

In other words, the object-making mode of thought that regulates phenomena in accordance with an external schema is unsuitable for the type of reality that Torrance insisted we must deal with. In this sense, part of Torrance's solution to the problem of the subject-object dichotomy of object-making thought is to attribute the cognizable structure (in relation to which phenomena are understood) to reality itself.

Scientific inquiry engages with object/object relations in which our subject/object relations are controlled from beyond themselves by reference to the ontological structures of the realities being investigated.⁶⁶

Torrance's intention is for the subject-object dichotomy to be resolved through correlating the subject-object relation to the object-object relation. In this way, the centre of gravity in the provenance of intelligibility is said to shift from the subjective to the objective pole. Rather than something only being known at the level of its relation to an observer, and invested with meaning by the observer, the internal relations of the object are the source of intelligibility.⁶⁷

However, Torrance has not fully addressed the problem that he has set. The dichotomy of the subject and object sprang from a distinction between the primary and secondary qualities of reality, which holds that reality in and of itself is characterized by its own logic and regularity and that the problem was with the variability of subjective experience. It is not enough to state that reality is coherent in itself and therefore our thought can be patterned in accordance to it as the ectype follows the archetype. The crucial factor must be the connection between phenomena and the intrinsic intelligibility

⁶⁵ Torrance, *RET*, 44.

⁶⁶ Torrance, *RET*, 28.

⁶⁷ Torrance, *RET*, 28-29.

of reality, such that appearances can never be treated as representations. It is on this basis alone that the subject is not a hindrance to objectivity to be removed by the harmonizing of representations in accordance to an alien rational structure. Torrance's conception of reality, characterized by the view that phenomena have an implicit pattern determined by the actual structure of the way things are, does, however, address this concern. This is the pivotal ontological commitment to Torrance's objectivity aside from which his proposal would fall back into the same abstractive patterns of object-making modes of thought. However, with this ontological basis, the subject is the active personal agent by whom the inherent intelligible form of reality as it is impressed upon him through experience is drawn out.

An important example of this is appropriate scientific questioning. In this connection, Torrance took direction from his understanding of Calvin's reversal of the line of Aristotelian questioning such that abstract inquiry into the essence of the thing (*quid sit*), which came first in Aristotelian inquiry was replaced by *a posteriori* questioning (*quale sit*) which began with the actuality of what is being inquired into.⁶⁸ As such, Torrance argued, the orientation of Calvin's questioning was to interrogate reality with questions shaped by reality such that our knowledge is determined by the inner structure of reality, rather than imposing our own logical structure upon reality.⁶⁹ Corresponding to this mode of interrogation is the willing submission of the human mind to the actual, intrinsic connections in reality. Such is the submission of the subject to the antecedent truth of the object that, elsewhere, Torrance held that the epistemic subject must 'repent' of pre-established and autonomous modes of thought so to be able to think in accordance with the nature of the object.⁷⁰ An important example of Torrance's

⁶⁸ Torrance, *GR*, 33.

⁶⁹ Torrance, *GR*, 33.

⁷⁰ Torrance, *GR*, 10.

readiness to allow reality to determine how reality is cognized is Torrance's appropriation of the distinction between general science and special science.

2.1.2. General Science and Special Science

As a function of the priority of the actual connections in reality over both the structure of our knowledge and the method of inquiry, Torrance drew the distinction between general science and the special sciences.

General science refers to the general principle of scientific inquiry, which is the disciplined effort to think in accordance with the nature of reality, such that the object under inquiry determines all that is thought of it.⁷¹ This is the formal procedure in which the structure and content of our knowledge and even the method of inquiry are all determined by what something is.⁷² Scientific thought is disciplined, structured thought, which expounds the intrinsic intelligibility of things, such that the connections of conceptual propositions are determined by the intrinsic connections and order of reality.⁷³

Special sciences are the specific forms of inquiry demanded by the general scientific approach. As reality is diverse, the general principle of scientific thought requires a diversity of modes of rationality determined by the specific requirements of its own object. The formal procedure of general science is modified in accordance with the specific object under investigation 'so that here is a *material* scientific procedure appropriate to each particular field of scientific research'.⁷⁴ There is a multiplicity of special sciences as the general scientific attitude is reified in particular branches of scientific inquiry.

⁷¹ Torrance, *TS*, 112; *RST*, 49. See also, Carr, 'Rationality of the Cosmos', 243-244; Achtemeier, 'Natural Science', 271.

⁷² Torrance, *RST*, 53.

⁷³ Torrance, *TS*, vii.

⁷⁴ Torrance, *TS*, 112.

The significance of differentiating between general and special science is that it constitutes the rejection of the application of one universal scientific method to all inquiry. Torrance was reacting to Descartes' *scientia universalis* which was the 'rigorous application of the method of analytical geometry' upon the different sciences.⁷⁵ Torrance considered such an approach to be the equation of scientific knowledge with the harmonizing of appearances to an order of the deductive process of the human mind, foisting upon reality a sequence that is not integral to it so to attain trans-subjective knowledge.⁷⁶ However, this was achieved by separating the observational and conceptual elements of knowing, and asserting the pattern of human thought in an 'imperialistic' relation to observational data.⁷⁷

Set in this contrast, Torrance used the distinction between general and special science to express the fundamental methodological conviction that reason does not operate according to its own laws, but rather the object determines both what is known of it and how it is to be known.⁷⁸ For this reason, Torrance held a minimalist approach to what constitutes scientific procedure, describing it as 'a way of knowing with minimal structural forms and relations fundamental to all scientific knowledge'.⁷⁹ All *a priori* conceptual frameworks are surrendered in fidelity to the 'forms of thought which we develop under the pressure of the object'.⁸⁰

This is what Torrance identified as a dogmatic scientific approach.⁸¹ An example of what Torrance had in mind is the strand of sixteenth century scientific thought characterized by the attempt to replace a mode of rationality dominated by autonomous

⁷⁵ Torrance, *TS*, 109.

⁷⁶ Torrance, *TS*, 109-110.

⁷⁷ Torrance, *TS*, 110, 114.

⁷⁸ Torrance, *GG*, 16. See Colyer, *How to Read*, 322; *The Nature of Doctrine*, 15f.

⁷⁹ Torrance, *TS*, 114.

⁸⁰ Torrance, *GR*, 92.

⁸¹ Torrance, *TNS*, 38; 121-122.

deduction from fixed axioms, with an inductive method in which the object of knowledge directly conditioned what was known of it in an open and non-deterministic inquiry.⁸²

This is ‘dogmatic’ on account of the intention to develop positive knowledge of the subject matter itself and knowing it in accordance with its own internal intelligibility.⁸³

In a dogmatic science, the scientist holds to be true only what he is compelled to think, as he lets the pattern and nature of what he is investigating impose themselves on his mind. He is not being dogmatic when he does that; he is humbly submitting his mind to the facts and their own inner logic.⁸⁴

Torrance’s engagement with dogmatic science shows a strong preference for modes of reason that begin with the ‘pattern’ of reality imposing itself upon the mind of humanity. In this connection, Torrance characterized Francis Bacon (1561-1626) as one who sought to know reality out from its own logical patterns, through the development of a method (*novum organum*) in which the Aristotelian *organum* of logical deduction from foundational axioms is replaced by a concentration on the physical world and its intrinsic rationality.⁸⁵

2.1.3. Heteronomy

The principle of heteronomy means that the epistemic subject does not think in accordance with laws of reason derived from the human mind itself. Instead, the *law of the other* determines how the subject is to think of it.

As early as 1942 Torrance rejected the validity of autonomous reason in Christian theology:⁸⁶ ‘In the place of autonomous reason Christianity puts the *heteronomous reason*’.⁸⁷ In Torrance’s view, Christian thought is not free thinking, but thinking bound

⁸² Torrance, *GR*, 89. .

⁸³ Torrance, *GR*, 89. See Davis, ‘Explanatory Account’, 17-18, 20.

⁸⁴ Torrance, ‘Science, Theology, Unity’, 150.

⁸⁵ Torrance, *TS*, 70.

⁸⁶ T.F. Torrance, ‘The Place and Function of Reason in Christian Theology’, *Evangelical Quarterly* 14.1 (1942), 22-41., 23-24.

⁸⁷ Torrance, ‘Place and Function’, 29.

to its object and determined by it.⁸⁸ Crucially, Torrance's position does not obviate the role of reason, instead 'Christianity does insist that the reason be brought back to a place of dependence on God, and that it learn to exercise its proper function within that dependence'.⁸⁹ Exactly what Torrance meant by this is only discernible in the light of the incarnation because Jesus Christ is 'Truth in His own person [...], Truth in the form of being; concrete historical Truth'.⁹⁰ From this, Torrance drew the implication that 'we human beings who can only know and think humanly, might here come to know the Eternal in the concrete, living, existential fashion'.⁹¹ Torrance's point is that Chalcedonian Christology does not allow for any cleavage between 'existence' and 'idea', through which abstract reason may operate in relation to an idea 'removed from actual existence'.⁹² On account of this, Torrance does not recognize the domain of discursive reason to be separate from that of intuitive reason, such that there is no dichotomy between "reason which cognizes truths, and "experience which cognizes reals".⁹³ Torrance's point is that because the very subject-matter of theology has become part of our creaturely existence, a rationalistic concern with ideas devoid of experience in which reason can operate in accordance with its own laws is invalidated. Instead, the faculty of developing theories by drawing inferences (discursive reason) must be held in conjunction with the acquisition of knowledge aside from logical inference by direct experience of reality (intuitive reason). That is, the deductive activity of the human mind has positive experience as its principle subject-matter. This is developed in the following chapter.

⁸⁸ Torrance, 'Place and Function', 29.

⁸⁹ Torrance, 'Place and Function', 29.

⁹⁰ Torrance, 'Place and Function', 32.

⁹¹ Torrance, 'Place and Function', 32.

⁹² Torrance, 'Place and Function', 33.

⁹³ Torrance, 'Place and Function', 34.

Later in his career, Torrance approached this idea from a philosophical and scientific angle. On account of the fact that phenomena are determined by the inherent intelligibility of reality, it follows that there must be a natural conjunction of the theoretical and the empirical components of thought.⁹⁴

phenomenal events can be discerned to form a pattern only when treated as empirical correlates of a higher form of reality. Hence the phenomenological detachment of the phenomenal level for consideration by itself can never succeed. Because structure and substance, form and being, are already fused together in the real world, the only adequate theoretical structures or conceptual forms with which we may operate are those ontologically derived from the actual field we are investigating. Hence the use of artificial theoretical structures abstracted from their natural context, thus entailing a divorce of structure and substance, or form and being, inevitably break down in the face of empirical reality. What is required of us, therefore, is an integrative approach to the whole field in question, in which primacy is given to the innate organisation and structure, and in which we operate simultaneously on both levels and learn to think of them conjunctively.⁹⁵

This is a dense and very important passage from which three crucial points can be drawn out.

First, phenomena are found to have an implicit pattern when investigated from a framework of thought that treats them as empirical events determined by the supra-sensible intelligibility of reality. This is established on some fundamental beliefs about reality, providing the subject with an intuitively derived perspective on account of which the intelligibility of reality gives to phenomena an implicit intelligible order. For this reason, however, the empirical component of knowledge can never be separated from the inherent structure in correlation with which the pattern of phenomena can be discerned, which is equivalent to the rejection of phenomenalism.⁹⁶ This is another way of saying that the subject-object relation is determined by antecedent object-object relations. Two contrasts can be made from this fundamental principle: (i) Torrance's position is contrary to the principle of correlation in phenomenology in which the subjective correlation of phenomena is paramount; (ii) Torrance's position is differentiated from Newton's

⁹⁴ Torrance, *TCFK*, 76-77.

⁹⁵ Torrance, *TCFK*, 92.

⁹⁶ Torrance, *RST*, 45; *GG*, 96.

absolute-relative distinction because appearances are not regulated by an absolute schema, but from ‘deeper’ levels of reality. In this sense, Torrance’s position is sharply differentiated from his assessment of Kant’s notion that phenomena are regulated through the categories of the understanding.

Second, theoretical representations are ontologically derived, determined by the reality being investigated.⁹⁷

Now when we allow objective being to reveal itself to us like that out of its own inner *logos* or intelligibility, our thought is thrust up against its reality, its truth of being, in such a way that it is sustained by an objective signification beyond itself and does not fall back into the emptiness of its own inventive, objectifying operations.⁹⁸

In Torrance’s epistemology, the rational structure of our conceptual representations are not the free creation of the human mind, but rather are derived from the order inherent to reality.⁹⁹ In this connection, ‘artificial theoretical structures’ are not appropriate for the only adequate conceptual representation is the one that takes its distinctive structure from the actual structure of reality. Moreover, the modes of thought that would impose rational form upon phenomena actually ‘break down’ against an empirical reality that is composed of its own inherent cognizable pattern.

Third, Torrance insisted upon an integrative approach to knowledge, which corresponds to the prior integration of the sensible and the intelligible within reality itself. It is through an empirical encounter with reality that the inherent orderliness and logical pattern of reality is impressed upon the human mind.¹⁰⁰ This involves a trans-logical mode of thought which operates at one at the same time with the empirical connection to reality and the syntactic connections drawn by deductive reason. This means that the task of theoretical constructions is to reflect upon experience and bring the inherent coherence

⁹⁷ Patterson, *Realist Christian Theology*, 1-2, 17, 24-26.

⁹⁸ Torrance, *GG*, 97.

⁹⁹ Torrance, *GG*, 97-98. McGrath, *Intellectual*, 224.

¹⁰⁰ Torrance, *CFM*, 24; *TCFK*, 88.

of reality to explicit expression. In this sense, Torrance may be understood as reacting to logical positivism and the bracketing off from the purview of scientific inquiry the non-empirical. In Torrance's view, such an approach could only engender knowledge that is an instrumental organization of sensible data, with no actual ontic correlate.¹⁰¹

It might be objected that Torrance's vision for scientific objectivity involving the conforming of our minds to the pattern inherent in reality does not overcome a dichotomous construal of the subject-object relation. Spjuth has argued that while Torrance's struggle for an adequate conception of objectivity is a development beyond the attempt to exclude the element of subjectivity through establishing the subject-object relation within the context of the priority of the object-object relations, Torrance has not adequately accounted for the active role of the subject in the knowing relation.¹⁰² Torrance's problem, Spjuth avers, is an inadequate conception of contingency. According to Spjuth, Torrance held a 'circumscribed' and 'restricted' understanding of contingency.¹⁰³ Spjuth understands contingency as unfettered possibility, and for this reason, Torrance's description of contingent intelligibility in which order is endowed upon creation through the *Logos* appears to introduce a conflict between the spontaneous openness of creation and its given intelligibility.¹⁰⁴ In Spjuth's view, contingency implies a view of reality more attuned to the implications of quantum physics and the unsystematic behaviour of subatomic particles, stressing the role of the subject in the development of theories.¹⁰⁵ The problem with Torrance's conception of contingency so far as Spjuth is concerned is that it fails to give adequate place to human creativity and

¹⁰¹ Torrance, *RST*, 74-75.

¹⁰² Spjuth, *Creation*, 105.

¹⁰³ Spjuth, *Creation*, 105-116.

¹⁰⁴ Spjuth, *Creation*, 107.

¹⁰⁵ Spjuth, *Creation*, 105.

responsibility in knowledge. The epistemic subject of Torrance's version of objectivity is, in Spjuth's judgement, passive.¹⁰⁶

Spjuth's criticisms rest on his understanding of contingency as untrammelled possibility. The problem for Spjuth is that Torrance established his understanding of contingency on God's self-revelation as Creator. This theologically determined contingency is characterized by a delicate counterpoise of dependence and independence and the endowment of order upon created reality,¹⁰⁷ and not by Spjuth's idea of unfettered possibility.

Furthermore, Spjuth's concern that Torrance's objectivity involves the passivity of the subject is not reflected in Torrance's affirmation of the role of the subjective element in objective thought. Torrance retained a place for the active involvement of the subject. The preceding discussion of the core tenet of Torrance's version of objectivity (that human thought is to be shaped by the pattern of reality) implies that the logical connections of our conceptual system are determined by the actual connections in reality. The subject is active here in (i) drawing logical connections under the determination of the inherent rationality of reality, through which that inherent rationality is increasingly disclosed to our understanding (which is discussed in far greater detail in the next chapter); and (ii) in engaging with experience from an objectively determined network of 'ultimate beliefs' (explored in the following section).

Spjuth is incorrect. Torrance did not exclude the role of the subject in developing theories concerning reality. Rather, Torrance did not explain the role of the subject in a manner that is in accordance with Spjuth's presuppositions. However, Torrance's approach is internally valid considering his conception of the contingent intelligibility

¹⁰⁶ See, Patterson, *Realist Christian Theology*, 16-18.

¹⁰⁷ Irving, 'Georges Florovsky and T.F. Torrance'.

and the correspondence between intrinsic intelligibility and phenomena. In my view, Spjuth does not overcome these basic convictions upon which Torrance built, and so fails to demonstrate that Torrance's position is unsound.

However, on the issue of creativity Spjuth may be on firmer ground. Torrance's approach says much about the obedient response to reality in terms of conceptual representation through allowing the shape of reality to determine the shape of our conceptual systems, but this does not directly account for the other forms of human response to reality. It is perhaps unfair to criticise Torrance too harshly for this, as his primary concern was with human rationality, without an explicit reduction of humanity to its rational operations. Even so, if this were not mentioned, Torrance's focus runs the risk of unnecessarily circumscribing the relation of humanity to reality to rational accordance.

2.1.4. The Nature and Role of Theories

In Torrance's view, scientific knowledge involves the internal coherence of reality shaping our conceptual representations through experience.¹⁰⁸ Theories are therefore objectively derived with a definitive ontic correlate. Torrance had nothing to do with theories understood as convention, or pragmatic arrangements of sensible data, considering such conceptions to be aberrations from the positivist criterion of perceptibility.¹⁰⁹ In this connection, Torrance regarded theories as determined by the actual structure of reality through experience.¹¹⁰

To Torrance, the role of a theory is to be a cognitive instrument orientated toward 'intellective penetration or theoretic insight' through the phenomena to the intrinsic

¹⁰⁸ Torrance, *GG*, 113.

¹⁰⁹ Torrance, *GR*, 6-7.

¹¹⁰ See M. Baker, 'Cosmological Contingency and Logical Necessity in Georges Florovsky and Thomas F. Torrance', Lecture Delivered at the Orthodox Theology and Sciences Conference at Sofia, Bulgaria, April 11, 2011. <http://www.bio-orthodoxy.com/2015/03/cosmological-contingency-and-logical.html>. Accessed 12/01/2016.

rationality so that reality may be understood in accordance with its intelligible depths:¹¹¹

‘a scientific theory or model of this kind is a sort of lens through which we allow the nature in its intrinsic patterns to reveal itself to our apprehension’.¹¹² Through this, the transcendent order inherent to reality that determines phenomena is brought to light.¹¹³

Torrance has been criticized for alleged elements of Platonism in his argumentation.¹¹⁴ Torrance’s commitment to the actual existence of intelligibility and the associated stratified view of reality with the accompanying designation of knowledge as ascending from intuition to the underlying form of reality via theoretic insight certainly carry such resonances. However, this association should not be pushed too far. As previously noted, Torrance was heavily critical of the opposition posited between the realm of sensible appearance and the realm of unchanging Forms inherent to Platonic philosophy. If Torrance might be correlated to metaphysical terminology, he has more in common with an *in re* view of universals than he has with an *ante rem* view.¹¹⁵ Moreover, Torrance did not suggest that experiences are to be penetrated beyond and jettisoned. Instead, the determination of our thought by the governing structures of reality takes place in constant coordination with experience. In this connection, Torrance was deeply critical of Platonizing influences in Christian hermeneutics which led to analogical interaction with the biblical text where the surface of the text is penetrated beyond to its higher meaning.¹¹⁶

¹¹¹ Torrance, *GG*, 122; *TCFK*, 89-90.

¹¹² Torrance, *GG*, 125; *TCFK*, 90, 256. See also, Colyer, *Nature of Doctrine*, 41.

¹¹³ Torrance, *TCFK*, 79.

¹¹⁴ Morrison, *Self-Revealing*, 292ff.

¹¹⁵ See below, 176-178.

¹¹⁶ Torrance, *Meaning*, 153-154, 160-162, 169, 177. However, Sarisky has criticized Torrance for a hermeneutical approach that does not account for the ‘historical backdrop or literary contours’ of Scripture and a presentation of the reader as passive and that Torrance has not integrated the reading of Scripture with the force of the vicarious humanity of Christ that is so significant in other areas of his thought. Sarisky, ‘Biblical Interpretation’, 339-346.

2.2. Critically Realist Objectivity: The Shaping of the Framework of Thought

The second aspect of Torrance's empirico-theoretical version of objectivity is the objective determination of the framework of thought from which the subject engages with phenomena. In this way, Torrance developed an approach in which phenomena are embraced by objective factors both from the side of reality and from the side of the subject: not only are appearances objectively controlled by the intrinsic intelligibility of reality, but the subject's interaction with phenomena is also determined by reality itself.

Torrance argued that experience is interfused with theoretical elements. The critical thing is that these theoretical elements are not developed in an *a priori* manner so to harmonize the variability of subjective experience in relation to an antecedent rational schema. Rather, an antecedent framework of thought is established under the pressure of reality through which phenomena is cognized. As Thiemann rightly notes, Torrance is no pre-critical thinker who ignores that knowledge involves the interaction of the human mind with the material content of knowledge: '[Torrance] simply rejects the absolute priority Kant grants the structure of reason in the formation of knowledge'.¹¹⁷ In this way, Torrance set out to account for the powerful element of subjective involvement in knowing in such a way that the subjective involvement is conditioned by reality.

In his 1970 Harris Lectures Torrance explicitly identified himself as a critical realist.¹¹⁸ Torrance's critical realism arises from his dissatisfaction with the object-making form of objectivity. Against this self-defeating attempt to exclude the subjective element from knowledge, Torrance insisted upon the necessity to give full account to the subjective element in knowledge. However, Torrance did not do so grudgingly. Torrance argued that by giving positive expression to the subjective element in knowledge, a way

¹¹⁷ R. Thiemann, *Revelation and Theology: The Gospel as Narrated Promise*, Eugene: Wipf and Stock, 1985, 34.

¹¹⁸ Torrance, *RST*, 132.

is opened for knowledge to be wholly determined by reality. It is in elaborating on the importance of the epistemic subject as a knowing person (the ‘subject-being’¹¹⁹) to the end that mind-independent reality may be known as it is in itself that Torrance located the value of critical realism.

Davis helpfully describes critical realism as the dialectic between realism and idealism. On one hand, critical realism is the realist rejection of the idealist insistence that ‘to exist is to be perceived’, holding instead that reality exists independent from correlation to an observer. As Davis notes, for the critical realist, ‘the universe exists not only *in intellectu*, but also *in re*, [so] our mental operations are coordinated with patterns and structures in the universe that are independent of us’.¹²⁰ On the other hand, critical realism concedes to the idealist that, when something is perceived, it becomes an object of the mind, meaning that human modes of apprehension and cognition are factors in the development of knowledge.¹²¹ Both of these elements are of great significance to Torrance’s appropriation of critical realism.

The first aspect of Torrance’s critical realism to be considered is the actuality of reality and the provisionality of our statements in relation to it. John Polkinghorne’s description of critical realism functions as an adequate introduction to these themes.

I believe that the advance of science is concerned not just with our ability to manipulate the physical world, but with our capacity to gain knowledge of its actual nature. In a word, I am a realist. Of course, such knowledge is to a degree partial and corrigible. Our attainment is verisimilitude, not absolute truth. Our method is creative interpretation of experience, not rigorous deduction from it. Thus, I am a critical realist.¹²²

Consistent with Polkinghorne’s description, Torrance was not a naïve realist. Torrance distinguished his own realism from an ultra-realism which holds a perfect correspondence

¹¹⁹ Torrance, *RST*, 109-110, 132.

¹²⁰ Davis, ‘Explanatory Account’, 22.

¹²¹ Davis, ‘Explanatory Account’, 21. See also, Patterson, *Realist Christian Theology*, 13-14.

¹²² J. Polkinghorne, *Belief in God in an Age of Science*, New Haven: Yale University Press, 1988,

between sign and thing signified.¹²³ For this reason, Torrance cannot be easily aligned with correspondence theories of truth,¹²⁴ which propose an easy correlation between human statements and the truth of reality. Torrance held that the intelligibility of reality extends deeper than our understanding of it.¹²⁵ On account of this, conceptual representations in Torrance's thought do not imitate reality and cannot be mistaken for reality.¹²⁶

Unlike Polkinghorne, Torrance would not have accepted that the role of the scientist is to achieve verisimilitude in their theories. A theory for Torrance facilitates penetration into the inherent order of reality, and it is not so much concerned with a semblance of accuracy. Stevick has argued that crucial elements of Torrance's critical realism are the commitment to the actual existence of reality with the recognition that this reality is knowable,¹²⁷ and that despite being knowable, reality is not known automatically.¹²⁸ It follows that reality can be known truly, but not necessarily. Stevick develops this line of analysis into Torrance's understanding of truth, and particularly the distinction between the truth of being and the truth of statements, noting that for Torrance statements refer beyond themselves to reality,¹²⁹ and so their truth is dependent on the antecedent truth of being to which it refers. As human concepts are not in exact correspondence to reality, reality cannot be reduced to statements about reality.¹³⁰ Thus our language is not a picturing model of reality, but is rather a disclosure model through

¹²³ Torrance, 'Theological Realism', 170.

¹²⁴ Achtemeier, 'The Truth of Tradition', 363-364. A similar position is taken by Munchin, *Is Theology a Science?*, 208. The correspondence theory of truth is the idea that there is some unproblematic and so direct relation between statement and reality. See also, Morrison, 'Heidegger, Torrance', 141-143; Stevick, 'Kata Physin', 104-109.

¹²⁵ Torrance, *RST*, 52-53; 135f; *GG*, 4-5; 104-5. A similar view is taken by Spjuth who argues that Torrance's critical realism is associated with metaphysical realism. Spjuth, *Creation*, 94-101.

¹²⁶ Morrison, 'Heidegger, Torrance', 140n3. See also, Davis, 'Explanatory Account', 23.

¹²⁷ Stevick, 'Truth and Language', 67.

¹²⁸ Stevick, 'Truth and Language', 67-68.

¹²⁹ Torrance, *GR*, 34-38; *GG*, 32-37; *RST*, 153-154; *TCFK*, 306-310; *Meaning*, 245-274.

¹³⁰ Stevick, 'Truth and Language', 71-79 (esp. 78); Colyer, *The Nature of Doctrine*, 16-17.

which the intelligibility of reality, that far exceeds our capacity to express, is increasingly disclosed.¹³¹

The second aspect of critical realism that is important to Torrance's reformulation of objectivity is the account of the role of the subject in knowledge. This is really the factor that demands significant elaboration. It is an important feature of Torrance's thought that he did not accept the subject-object dualism.¹³² According to Torrance, the personal involvement of the knowing subject must be taken into account in an adequate conception of objective knowledge.¹³³ Accordingly, McGrath argues that Torrance's critical realism is characterized by the interconnection of the knower and the known.¹³⁴ McGrath helpfully offers N.T. Wright's definition of critical realism as indicative of Torrance's own position.¹³⁵

[critical realism is] a way of describing the process of 'knowing' that acknowledges the *reality of the thing known, as something other than the knower* (hence 'realism'), while also fully acknowledging that the only access we have to this reality lies along the spiralling path of *appropriate dialogue or conversation between the knower and the thing known* (hence 'critical'). This path leads to critical reflection on the products of our enquiry into 'reality', so that our assertions about 'reality' acknowledge their own provisionality.¹³⁶

Torrance's objectivity involves cognitive contact with the nature of things *per se*,¹³⁷ but yet Torrance insisted that attention was given to the knower as a personal agent.¹³⁸ According to Torrance it is only by the 'interaction between us as knowers and what we know that we know' that objective knowledge is possible.¹³⁹ This means that the subject and object of knowledge constitute two poles of the knowing relation:¹⁴⁰ the subjective

¹³¹ Stevick, 'Truth and Language', 92-94.

¹³² Munchin, *Is Theology a Science?*, 88

¹³³ Stevick, 'Kata Physin', 73.

¹³⁴ McGrath, *Intellectual*, 217-218.

¹³⁵ McGrath, *Intellectual*, 217.

¹³⁶ Wright, *The New Testament*, 35.

¹³⁷ Torrance, 'Notes and Comments', 140-141.

¹³⁸ McGrath, *Intellectual*, 218. See also, Brown, *Subject and Object*, 13-14, 19-33.

¹³⁹ Torrance, *RST*, 110. Munchin, *Is Theology a Science?*, 70-114; Chung, *Mediations and Revelation*, 82-87; Myers, 'Stratification', 1; Stevick, 'Kata Physin', 79.

¹⁴⁰ Munchin, *Is Theology a Science?*, 88.

pole is the ‘knowing, believing, acting person’ and the objective pole is the ‘reality independent from [the subject]’.¹⁴¹ Torrance’s point is that rather than seeking to rescind the involvement of the subject by the imposition of an absolute schema, the role of the subject must be positively understood. Far from avoiding the question of subjectivity, Torrance sought to emphasise the opportunities afforded by this ‘subjective variable’ to the end of knowing reality as it is in itself.¹⁴²

Torrance’s argument rests on the personal nature of the subject.¹⁴³ The significance of this is that it is the basic act of the subject as a person to distinguish between herself and the reality external to herself.¹⁴⁴ It is just such a ‘subject-mode of being’ which can be the ‘bearer of objectivity’,¹⁴⁵ for in differentiating between herself and the object, the independence of the object is affirmed, and its separate character and qualities must be respected and not imposed upon by any manipulation from the side of the knower.¹⁴⁶

Stevick helpfully clarifies that the personal nature of the subject as able to differentiate between self and other rests on Torrance’s understanding of personhood as it arises from the doctrine of the Trinity. Torrance understood trinitarian theology to identify that a person is constituted by the relations in which he stands, and therefore is orientated to the other and determined by the other.¹⁴⁷ In this light, Stevick rightly notes that for Torrance the question is not solely how we as subjects can orientate ourselves to be objective through harmonizing experience. Rather, for Torrance, the question is how

¹⁴¹ Torrance, *BSCL*, 11.

¹⁴² Torrance, *RST*, 110.

¹⁴³ Stevick, ‘*Kata Physin*’, 77ff.

¹⁴⁴ Torrance, *RST*, 109.

¹⁴⁵ Torrance, *RST*, 109.

¹⁴⁶ Torrance, *RST*, 110.

¹⁴⁷ Torrance, *RST*, 171-172, 110-111; *TS*, 305-307. Stevick, ‘*Kata Physin*’, 77.

we as subjects allow the object to be objective to us and respect what it is in itself and allow it to change what we think regarding it.¹⁴⁸

Torrance's point is that objective knowledge is only possible through the interplay between the subject and the object which is constituted by active participation of the subject in the object's independent reality and intrinsic intelligibility.¹⁴⁹ Accordingly, Torrance's emphasis on the personal nature of knowledge does not indicate a 'private' knowledge shaped by the subject's unique perspective and presuppositions.¹⁵⁰ Instead personal knowledge is the recognition that objective knowledge is held by a personal subject who differentiates himself from the object and faithfully submits his mind to the inner order of reality manifest through phenomena.

However, the subject is not simply a neutral canvas in relation to which the object asserts itself; instead, there is a framework of thought in operation in the knowing subject (a basic set of presuppositions and beliefs which shapes our apprehension of reality).¹⁵¹ It may be argued that in filtering how the object is encountered through a subjective framework of thought that Torrance has, ultimately, not solved the problem of object-making thought. Torrance's proposal could be perceived as giving too much influence to the subjective element in knowledge, contradicting his fundamental principle for objectivity.¹⁵² In this connection, two important factors should be borne in mind.

- (i) Torrance claimed that this framework for thought is objectively determined.

This means that the framework of thought is impressed upon the human mind by the internal structure of reality.

¹⁴⁸ Stevick, '*Kata Physin*', 77.

¹⁴⁹ Torrance, *RST*, 110.

¹⁵⁰ A point made well by Munchin, *Is Theology a Science?*, 89.

¹⁵¹ Stevick, '*Kata Physin*', 74.

¹⁵² Stevick, '*Kata Physin*', 80.

- (ii) The interaction between the knower and the known takes place at an inter-subjective level, where a plurality of subjects share a framework of thought impressed upon them collectively by reality itself: the social co-efficient of knowledge.

Through these twin concepts (the ontological provenance of the framework of thought, and the collective, collaborative subjectivity in which it is held) Torrance sought to account for the involvement of the subject, without that involvement degenerating into domination.

2.2.1. The Objective Determination of the Framework of Thought: Ultimate Beliefs

The notion that the framework of thought is objectively determined is connected to the function of ‘ultimate beliefs’. Ultimate beliefs are beliefs which ‘play a normative role in the gaining and developing of all scientific knowledge’.¹⁵³ Crucially, these beliefs are objectively determined, in that they arise in the mind under the pressure of reality.¹⁵⁴ Moreover, ultimate beliefs cannot be refuted or disproved because they bear a relation to reality which is pre-logical.

Ultimate beliefs, then, are to be understood as expressing the fundamental commitment of the mind to reality, which rational knowledge presupposes and on which the reason relies in any authentic thrust toward the truth. Far from being irrational or non-rational, these ultimate beliefs have to do with the ontological reference of the reason to the nature and structure of things, which all explicit forms of reasoning are intended to serve, and without which they are blind and impotent.¹⁵⁵

Ultimate beliefs constitute the shaping of the mind by the antecedent intelligibility of reality to a framework for thought under the impress of the antecedent structure of reality. The function of this framework is to govern our subsequent inquiry allowing an

¹⁵³ Torrance, *TCFK*, 194.

¹⁵⁴ Torrance, ‘The Framework of Belief’ in *Belief in Science and in Christian Life: The Relevance of Michael Polanyi’s Thought for Christian Faith and Life*, ed. T.F. Torrance, Edinburgh: The Handsel Press, 1980, 1-29, 13-14; T.F. Torrance, ‘Ultimate Beliefs and the Scientific Revolution’, *Cross Currents* 30 (1980), 129-149.

¹⁵⁵ Torrance, *TCFK*, 194, 202-203; *TS*, xi.

interpretation of experience which is determined by reality, whereby our cognitive operations can be truly orientated to reality.¹⁵⁶ Torrance's point is that the empirical element of our knowledge is interfused with theoretical elements, and the provenance of these is not arbitrary or *a priori*. Instead the very framework of thought within which theoretical representations are developed is itself shaped by a pre-cognitive interaction with reality. For example, the commitment to the actual existence of an intrinsically intelligible reality which can be apprehended by reality and brought to rational expression is an ultimate belief.¹⁵⁷

Objectively determined, and pre-logical ultimate beliefs acting as a framework for thought is inseparable from Torrance's assessment of Michael Polanyi as restoring 'to its proper place in knowledge the responsible activity of the human person'.¹⁵⁸ Under the compulsion of an informal apprehension of the ontic structure of reality, the observer possesses a 'fiduciary framework', which is the network of beliefs that exercise determinative influence over inquiry.¹⁵⁹ Such beliefs are not irrational or arbitrary, but arise in the mind under the pressure of patterns in reality as they are encountered in our experience.¹⁶⁰ As such, Torrance argued that such beliefs are determined by the object of knowledge, formed through 'elemental interaction between persons and realities other than themselves'.¹⁶¹ Therefore, in Torrance's analysis of Michael Polanyi he noted that beliefs regarding reality are the 'source of knowledge from which our acts of discovery take their rise'.¹⁶²

¹⁵⁶ Torrance, *TCFK*, 194.

¹⁵⁷ Torrance, *TCFK*, 202-203. Stevick, 'Kata Physin', 45-46.

¹⁵⁸ Torrance, *CTSC*, 65.

¹⁵⁹ Torrance, *CTSC*, 63; *TCFK*, 193; *BSCL*, 136.

¹⁶⁰ Torrance, 'Framework of Belief', 11-12, 20.

¹⁶¹ Torrance, 'Framework of Belief', 12.

¹⁶² Torrance, *CTSC*, 63.

Importantly, these ultimate beliefs become embodied in a community becoming the general framework of thought within which inquiry takes place.¹⁶³

2.2.2. The Social Co-Efficient of Knowledge

The social coefficient of knowledge is the capacity of a human community to be modified in its collective thought and language by reality such that the collective framework of thought is shaped by reality, which, as Achtemeier rightly notes, constitutes the ‘theoretical and semantic framework, provided by a community or society, within which meaning emerges and is sustained’¹⁶⁴. In this way, the collective framework of thought with which a human society operates is coordinated to the actual structure of reality.¹⁶⁵

There is an inescapable need for a social coefficient of knowledge in order to establish and maintain semantic relations with reality, within which [humanity] can be at home in the universe, through being rightly related to its essential patterns and intrinsic intelligibilities which are the ground of meaning. It is within this framework that human conceptions are constantly formed, patterns of thought take shape, and the anticipatory grip upon reality which initiates inquiry is gained.¹⁶⁶

This coordination is the means through which a correct understanding of the connections between experiences is achieved. Importantly, Torrance did not argue that this coordination between the structure of reality and our framework of thought is inevitable or necessary. Instead, Torrance argued that the framework of thought is continually modifiable by the inherent structure of reality.¹⁶⁷

The social coefficient is identified by Torrance as that which mediates the relationship between experience and concept on account of the fact that experiences are understood through a framework of thought that reality imposes on the semantic and theoretic structures of a society. In this sense, the intelligible connections through which

¹⁶³ Torrance, *BSCL*, 21.

¹⁶⁴ Achtemeier, ‘Truth of Tradition’, 360.

¹⁶⁵ Torrance, *RST*, 103-104, 109.

¹⁶⁶ Torrance, *RST*, 102.

¹⁶⁷ Torrance, *RST*, 113; ‘Framework of Belief’, 21.

something may be understood are impressed upon the human mind by reality and absorbed into a collective consciousness through which we may rightly interact with experience and hold it in its natural network of meaning.¹⁶⁸

in our personal and social existence we find ourselves caught up in a comprehensive outlook without which we would be rather blind and would not be able to recognize or identify significant aspects of reality. Apart from proleptic glimpses of reality in its inherent patterns which arise in our minds in this way, all our inquiries would be undirected and uninformed¹⁶⁹

Torrance's point is that knowledge takes place in a society, where the framework of thought with which society operates is impressed upon it from the antecedent structure of reality, by which we are predisposed to an apprehension of the rational order inherent in the universe.¹⁷⁰ The social co-efficient of knowledge makes us ready to rightly understand phenomena.¹⁷¹

For example, Torrance conceived of God's self-revelation as consisting of two distinct stages. The first stage was the preparation for the second stage of God's definitive act of revelation in the incarnate Son.¹⁷² The first stage of preparation is God's relation to Israel, which, as Scandrett notes, is the presupposition for the correct understanding of God's self-revelation in Jesus Christ.¹⁷³ Torrance referred to the history of Israel as a 'hinterground of preparation' establishing appropriate modes of thought within which his actual self-revelation could be understood.¹⁷⁴ Torrance suggested that in the history of

¹⁶⁸ Torrance, *RST*, 104.

¹⁶⁹ Torrance, *RST*, 114. Achtemeier points out the continuity between Torrance and McIntyre on this point. Achtemeier, 'Truth of Tradition', 358-362.

¹⁷⁰ Torrance, *RST*, 109, 114.

¹⁷¹ Torrance, *RST*, 115.

¹⁷² C.B. Kruger, 'Participation in the Self-Knowledge of God: The Nature and Means of Our Knowledge of God in the Theology of T.F. Torrance', PhD, University of Aberdeen, 1989, 50.

¹⁷³ J.A. Scandrett, 'Suffering Servant, Wounded Word, Troubled Trinity: The Passion of God in the Theology of Thomas Forsyth Torrance', PhD, Drew University, 2006, 32. Reference taken from Davis, 'Explanatory Account', 95.

¹⁷⁴ Torrance, *Incarnation*, 37-38.

God's election of and interaction with the people of Israel the 'conceptual tools' with which God's self-revelation could be understood were given to humanity.¹⁷⁵

In the covenanted relationship thus set up between Israel and God, Israel found itself a people invaded by divine revelation and progressively subjected to its moulding and informing power in such a way that the responses which divine revelation provoked from it, whether of obedience or disobedience, enlightenment or blindness, were made instruments for its deepening penetration into its existence and understanding until there were forged structures of thought and speech in terms of which it [revelation] became understandable and communicable.¹⁷⁶

Davis rightly notes that what is in view is the development of permanent structures of thought in the nation of Israel, which constitute the essential framework of our knowledge of God.¹⁷⁷ Aside from this preparation of a framework of thought, Torrance argued, God's self-revelation would be unintelligible to humanity.¹⁷⁸

Scandrett observes that Torrance's notion of Israel as a community whose way of thinking was shaped by their interaction with God such that the people of Israel had an inculcated way of thinking by objectively determined by the reality of God by which they could rightly apprehend God's self-revelation, is the same as Torrance's social coefficient of knowledge.¹⁷⁹ Similarly, Kruger turns to Thomas Kuhn's notion of paradigm shift in the structure of scientific revolutions to describe the sort of reconstruction of the fundamental mental categories of Israel.¹⁸⁰

An important implication of this is that the human mind is adapted to divine revelation such that Israel became a 'partner' in God's self-revelation.¹⁸¹ This dynamism is an important part of Torrance's epistemology. Theologically, it is completed in the person of Jesus Christ as God achieves his self-revelation to humanity from the side of

¹⁷⁵ Torrance, *Incarnation*, 41; *Mediation*, 7. Chung, *Mediations*, 4-5; Colyer, *How to Read*, 61.

¹⁷⁶ Torrance, *RET*, 87.

¹⁷⁷ Davis, 'Explanatory Account', 95ff.

¹⁷⁸ Torrance, *Incarnation*, 41. Kruger, 'Participation in the Self-Knowledge of God', 47; Scandrett, 'Suffering Servant', 35.

¹⁷⁹ Scandrett, 'Suffering Servant', 33. Reference taken from Davis, 'Explanatory Account', 83.

¹⁸⁰ Kruger, 'Participation in the Self-Knowledge of God', 66, 67.

¹⁸¹ Torrance, *RET*, 85; *Mediation*, 12. Colyer, *How to Read*, 61.

God and the true response of humanity to that revelation from the side of humanity.¹⁸² More generally, it implies that the epistemic subject is established in reciprocity with the thing known such that in being shaped in accordance to that which is known the subject actively participates in the knowing relationship.

However, despite this account of the positive involvement of the epistemic subject, Torrance has received criticism for not fully accounting for the subjective element of our knowing. In this connection, Luoma's criticism is significant because he has understood Torrance's realism in coordination with the *homoousion* and therefore understands Torrance to have identified that reality compels humanity to think appropriately of it on account of the identity of nature between appearance and reality.¹⁸³ From this basis, Luoma recognizes that Torrance associated objective knowledge with the reconfiguration of our minds in accordance with reality's internal truth. The problem, Luoma continues, is how to hold together the compelling power of the object and the integrity of the subject. In Luoma's view, to be compelled to think in accordance with the object still leaves the subject a passive agent in the knowing event.¹⁸⁴

Had Torrance's account of how knowledge is determined by reality been exhausted by the structuring of the framework of thought under pressure from reality, Luoma's concern may have been valid. However, Luoma has underestimated the significance of the co-operation between intuitive reason and discursive reason in Torrance's account of how the actual connections in reality shape the mental connections, which constitute the rational structure of our conceptual representations. Luoma provides a very limited discussion of the relation between coherence and existence statements, and neglects the significance of the implicit pattern of existence statements which is made

¹⁸² Torrance, RET, 88.

¹⁸³ Luoma, *Incarnation*, 65.

¹⁸⁴ Luoma, *Incarnation*, 70ff.

explicit through coherence statements.¹⁸⁵ In this relationship, Torrance laid out the active role of the subject in developing mental connections determined by the actual connections in reality such that the structure of thought is shaped by the structure of reality, which is discussed in the following chapter.

¹⁸⁵ Luoma, *Incarnation*, 68-69. See below, 183-184.

Chapter 3

Logic

The synthesis of the logic of systematic form and the logic of empirical form gives powerful expression to the synthesis of rational structure and material content that is established upon Torrance's unitary understanding of reality (Chapter 1) and outlined through Torrance's conception of objectivity (Chapter 2). By this integrative approach, Torrance sought to think in such a way that the connections inherent in reality determine the rational structure of our conceptual systems through experience. This chapter is a clarification of the role of logic in Torrance's thought in order to facilitate a further understanding of his NT. This chapter will not seek to place Torrance's logic in the context of alternative metaphysics.

An important aspect of the synthesis of the logic of systematic form and the logic of empirical form is Torrance's nuanced attitude to logic. Torrance recognized the value of formal logic as a powerful cognitive tool to ensure valid inference between propositions. However, Torrance held the view that symbolic variants of formal logic were predicated upon the disjunction between the mental connections of valid deduction from premises with the conclusions generated from conceptual analysis alone and the actual connections in reality itself. To Torrance, if knowledge is to be determined by reality, it must include both an appropriate syntactic connection of valid 'horizontal' relation between propositions, and an appropriate semantic connection of true 'vertical' relation between statements and the objective relations in reality. Accordingly Torrance used logic as a tool in the development of a valid rational structure determined by the

interior structure of reality through which the intrinsic intelligibility can be increasingly disclosed. In this, Torrance reconfigured the function of logic to clarify and expose the coherent structure that is implicit in what is experienced.

Torrance's synthetic approach involves the confluence of the 'logic of empirical form', and the 'logic of systematic form'.¹ This confluence involves the collaboration of the deductive activity of establishing valid continuity between propositions, and the connection to reality through intuition in connection to which a basic framework of thought is established through which these experiences might be rightly apprehended. As a function of this synthetic approach, the material content of knowledge, that is the positive knowledge of reality based on experience, is the source of propositions, which themselves are the basis of the inferential activity of the human mind. The principle mechanism of the proposed synthesis is the distinction and the relation between coherence statements and existence statements.

1.0. Torrance and Logic

Torrance adopted a nuanced stance toward the status and function of logic. Before Torrance's nuanced stance can be considered, some introductory comments on the distinction and relation between traditional and symbolic logic are required.

1.1. Traditional and Symbolic Logic

Traditional logic² involves the construction and evaluation of valid connections between propositions through drawing inferences that are deductively valid.³ Inference is the

¹ See below, 169.

² The terminology of 'traditional logic' is taken from Tarski's distinction between logic and the symbolic logic of the nineteenth and early twentieth century. A. Tarski, *Introduction to Logic and to the Methodology of the Deductive Sciences*, New York: Oxford University Press, 1994, 43-44. See also, Schumacher's distinction between Aristotle's system of logic and modern symbolic logic on the issue of

movement of thought where one proposition is affirmed on the basis of one or more other propositions that have already been established. A valid inference is when the premises logically entail the conclusion.⁴ Alongside validity, traditional logic is concerned with the *soundness* of an argument.⁵ The soundness of an argument is the appropriate relation between the state of affairs external to the logical system and the premises themselves. Hypothetically, two premises may be false, and yet they may still logically entail a conclusion. In this eventuality, an argument would be valid, but it would not be sound.⁶ The soundness of propositions is irrelevant to formal validity.⁷

Modern formal logic in its symbolic form as it has developed from Frege is concerned with valid inference between propositions. A unique focus on valid inference aside from soundness involves the development of an abstract, formalized notation (an artificial collection of symbols with no ontic correlate) through which to express deductive arguments.⁸ Symbolic logic, therefore, has no concern with the soundness of an argument. As Hoyningen-Heune helpfully explains, ‘the logical form of a sentence is obtained by *abstracting from the content* of the sentence’.⁹ This abstract logical form is expressed through the notation of symbolic logic.¹⁰ The motivation behind developing a stylized notation is to step to the side of distracting problems caused by the use of

connection to reality. L. Schumacher, *Rationality as Virtue: Toward a Theological Philosophy*, Farnham: Ashgate, 2015, 7-8, 55.

³ P. Smith, *An Introduction to Formal Logic*, Cambridge: Cambridge University Press, 2003, 1-7; M. Friend, *Introducing Philosophy of Mathematics*, London: Routledge, 2014, 36; P. Hoyningen-Heune, *Formal Logic: a Philosophical Approach*, Pittsburgh: University of Pittsburgh Press, 2004, 1-3.

⁴ Smith, *Introduction* 4, 9; I.M. Copi, *Introduction to Logic*, 5th Edition, New York: MacMillan Publishing, 1978, 32; R. Jeffry, *Formal Logic: Its Scope and Limits*. 4th Edition, Indianapolis: Hackett Publishing Company, 2006, 1.

⁵ Hoyningen-Heune, *Formal Logic*, 3.

⁶ Jeffry, *Formal Logic*, 5; Smith, *Formal Logic*, 14; Copi, *Logic*, 42; Hoyningen-Heune, *Formal Logic*, 4-5.

⁷ Hoyningen-Heune, *Formal Logic*, 6.

⁸ Smith, *Formal Logic*, 53. See also, A. Einstein, ‘Geometry and Experience’, in *Ideas and Opinions*, trans. S. Bargmann, New York: Crown, 232-249. Republished, ‘Geometry and Experience’, *The Collected Papers of Albert Einstein: Volume 7: The Berlin Years: Writings, 1918-1921*, trans., A. Engel, Princeton: Princeton University Press, 2002, 208-222, 233.

⁹ Hoyningen-Heune, *Formal Logic*, 10.

¹⁰ Hoyningen-Heune, *Formal Logic*, 12.

common vernacular to express logical problems.¹¹ For this reason, symbolic formal logic involves the analysis of inference in the logical form of a sentence through the use of abstract notation, which has its own precise syntactic rules.¹² The great strength of this formalized notation is that it allows ‘deductions to be carried out independently of the meaning or content of the propositions involved’, thus enabling greater inferential precision.¹³ As such, symbolic logic is concerned with the valid inference from premise to conclusion, where a formalized notation is used to describe the logical connections.¹⁴ The primary focus of such logic is a syntactic focus of valid progression from premises to conclusions.

Torrance recognized the distinction between traditional logic in its concern with soundness and validity, and symbolic logic with its exclusive focus on formal validity. Importantly, Torrance saw both the benefits and the dangers of the abstract calculus of symbolic logic. In order to understand Torrance’s nuanced stance, it is necessary to recognize the importance of *connections* in his thought.

1.2. The Importance of Connections

To Torrance, knowledge is all about connections.¹⁵ There are three sorts of connection that are of paramount importance.

- (i) The *actual* connections of objective reality. The connections in reality are the ‘external relations in the world’.¹⁶ These actual connections constitute the

¹¹ Smith, *Formal Logic*, 55-57, 58; Jeffry, *Formal Logic*, 13.

¹² Smith, *Formal Logic*, 63-71.

¹³ Schumacher, *Rationality*, 8. See Lemmon’s distinction between the assumption of traditional logic that no term is empty, and the ontologically empty terms of predicate calculus. Lemmon, *Beginning Logic*, 175-177. See also Heinrich Scholz’ discussion of symbolic logic. H. Scholz, ‘Wie ist eine evangelische Theologie als Wissenschaft möglich?’ *Zwischen den Zeiten* 9 (1931), 8-53, 50-74.

¹⁴ Torrance, *TS*, 246-247. Torrance’s understanding of formal logic is influenced by Morris Cohen. See particularly M. Cohen, *A Preface to Logic*, London: Routledge, 1946, 5, 9-11 and Torrance, *TS*, 250.

¹⁵ Torrance, *GR*, 11-15; *RET*, 42-51.

ground and the grammar of the empirical connection to observers and the subsequent connections in human chains of valid inference.

- (ii) The *empirical* connection between the knower and reality.
- (iii) The *systematic* connections of the combination of our thought into logically valid and complex sequences.¹⁷

These different forms of connection require language to function with different principle referents. The connection between reality and the knower requires a *semantic* reference in which language functions as a sign toward reality. The connection between different propositions requires a *syntactic* reference in which statements are related to other statements in the formation of valid, complex propositions. So far as Torrance is concerned, knowledge involves the ultimate belief in the actual connections within reality, the positive empirical connection to reality and the theoretical mental connections of the rational structure of our conceptual representations. Moreover, he held that for our conceptual representations to truly refer to reality, it required the synthesis of syntactic and semantic reference.

In the last chapter, it was argued that one of the principle factors in Torrance's view of objectivity was the patterning of our thought in accordance to the antecedent structure of reality. In this chapter, I suggest that the means by which this takes place in Torrance's thought is by the determination of the logical connections of our theoretical representations by the actual connections in reality through phenomena. This is what is in view in the synthesis of the logic of empirical form and systematic form. Torrance approached this through setting the problematic in two ways, corresponding to the fundamental division in reality between God and creation.

¹⁶ Torrance, *TS*, 222.

¹⁷ Torrance, *TS*, 222-223.

Firstly, the problematic pertaining to God, Torrance called the problem of *theologic*.¹⁸ This is the problem of how to relate human logical forms to the antecedent ‘logic’ of God,¹⁹ which is God’s self-revelation in Jesus Christ.²⁰ That is, how is the rational structure of theology determined by the actual structure of God’s self-revelation? In theology, Torrance argued that logic involves the human ‘activity in formulating the understanding of the divine *logos*, i.e. the logical structure of our knowledge of God as it employs human forms of thought and speech’.²¹ In this connection, the incarnation of the Word and the actualizing of the self-knowledge of God in creaturely forms of thought and speech are of paramount importance. The distinctive problem of *theologic* is more properly discussed in subsequent chapters concerning Torrance’s proposals for natural theology.

Secondly, Torrance called the problematic pertaining to reality more generally the problem of *ontologic*.²² This is the problem of how to relate the logic of human conceptuality to the material ‘logic’ of the actual ontic structure of reality.²³ Torrance’s answer to this problem was the synthesis of the logic of empirical form and the logic of systematic form. Through this synthesis, Torrance approached the problem of *ontologic* by the collaboration of the different types of connection introduced above: the empirical connection to reality (expressed through the logic of empirical form) and the systematic connection to other statements (expressed through the logic of systematic form) under the determination of the actual connections in reality.

From this preliminary orientation to the importance of connections in Torrance’s epistemology, Torrance’s attitude to symbolic logic is understandable.

¹⁸ Torrance, *TS*, 205.

¹⁹ Torrance, *TS*, 205.

²⁰ Torrance, *TS*, 222.

²¹ Torrance, *TS*, 222.

²² Torrance, *TS*, 205.

²³ Torrance, *TS*, 205.

1.3. Symbolic Logic and Empirical Correlates

In view of the importance of different forms of connection to the problem of ontologic, Torrance adopted a nuanced assessment of symbolic logic. Torrance accounted for the development of modern symbolic logic by holding it in relation to the perception that traditional logic was unable to distinguish between the empirical connection of human language to reality, and the systematic connection. As traditional logic used ordinary language, the purity of its systematic connections was compromised through semantic associations.²⁴ In response to this, a stylized notation with no ontic correlate was developed, so to facilitate clear and precise inferential structures, uninterrupted by the semantic connection.²⁵

Torrance appreciated that symbolic logic was capable of discursive systems of inferential complexity and precision. The problem, such as Torrance saw it, was the purification of the systematic connection at the expense of the semantic connection.²⁶ For example, the symbolic logic of Gottlob Frege's *Begriffsschrift* and Bertrand Russell's proposed freedom from 'object-words' demonstrate this turn away from actual connection to reality in symbolic formal logic.²⁷ In such approaches, language is replaced by 'second-order' symbols (arbitrary signs with no ontic reference); a logical calculus suited for inferential precision.²⁸ In Torrance's view, this amounts to the prioritizing of inferential connections over actual connections.²⁹ Another example of this is Whitehead and Russell's *Principia Mathematica*, which was understood by Torrance as the attempt to reduce mathematics to an axiomatic deductive system without any ontological reference, where the criteria for the truth of a proposition is consistently relative to the

²⁴ Torrance, *TS*, 224.

²⁵ Torrance, *TS*, 224. See also E.H. Hutten, *The Origins of Science: an Inquiry into the Foundations of Western Thought*, London: Allen & Unwin, 1962, 117.

²⁶ Torrance, *TS*, 248.

²⁷ Torrance, *TS*, 248.

²⁸ Torrance, *TS*, 249.

²⁹ Torrance, *TS*, 109-110.

validity of the deductive system.³⁰ However, Torrance's reading is in contrast to a recent analysis by Michael Detlefsen who has argued that Whitehead and Russell attempted a descriptive axiomatization, which he believes is integrated with a pre-established informal body of convictions, and is thus not the closed system that Torrance believed it to be.³¹

Even so, Torrance had two fundamental criticisms of symbolic logic. First, it is detached from reality,³² and so fails to satisfy his basic criterion of objectivity: symbolic logic takes its rational structure not from reality but from *a priori* laws of human reason. Second, the unique focus on the systematic connection is tantamount to negating the other forms of connection that are necessary for true knowledge.

[symbolic logic] appears to restrict relations, and therefore form and order, to the world of the mind, while positing things and existence in the nature of the real world, which not only denies the latter any inherent rationality or knowability but implies that the more we think in terms of relations the more we misrepresent it³³

Symbolic logic functions as if the actual connections in reality are inconsequential to the structure of human conceptual representations, whereby the connections posited by the inferential chain are uniquely significant.³⁴ Torrance's concern with this is that such formal, inferential systems are constituted by wholly artificial patterns of thought.³⁵ Ultimately, Torrance's assessment parallels his reading of Kant's thought: 'when our thought becomes detached from being it develops imperious and legislative habits in

³⁰ Torrance, *TCFK*, 137. See also, E. Nagel and J. Newman, *Gödel's Proof*, London: Routledge and Kegan Paul, 1968, 43; M. Kline, *Mathematical Thought from Ancient to Modern Times: Volume 3*, Oxford: Oxford University Press, 1972, 1192-1197; F. Waismann, *Introduction to Mathematical Thinking: The Formation of Concepts in Modern Mathematics*, trans. T.J. Benac, London: Hafner Publishing Company, 1951, 100-102.

³¹ M. Detlefsen, 'Completeness and the Ends of Axiomatization', in *Interpreting Gödel: Critical Essays*, ed. J. Kennedy, Cambridge: Cambridge University Press, 2014, 59-77, 60ff.

³² Torrance, *TS*, 250f.

³³ Torrance, *TS*, 225.

³⁴ Lying beneath Torrance's thought is the analysis of Cohen. See Cohen, *Preface*, 8-10, 38-44, 48, 51-52, 85, 192.

³⁵ Torrance, *GR*, 17-18; *RST*, 65. See, Torrance's criticisms of William of Ockham and the exclusivity of discursive reason in theology. Torrance, *Reconstruction*, 79-80. See Stevick's overview of the weaknesses of a coherence theory of truth. Stevick, 'Kata Physin', 117-118. See, also Friend, *Philosophy of Mathematics*, 36.

seeking to impose nomistic structures upon being'.³⁶ In other words, Torrance held that, in the final analysis, symbolic logic intersects with the transfer of intelligibility from the objective to the subjective pole found in Kant's transcendental deduction.

All this does not mean that Torrance had no place for discursive reason.³⁷ Instead, Torrance saw the purity of inference possible in modern types of symbolic logic to be capable of significantly enhancing knowledge.

the particular value of modern logic [contextually, Torrance referred to symbolic logic] is that in a computer-like way it enables us to formulate very complex statements and perform feats of elaborate and sophisticated deduction which we would not be capable of otherwise, just as the casting of scientific results into a mathematical notation may not only give them consistency making them precise and clear, but, as it were, do some difficult thinking for us by unfolding the implications of our scientific work beyond what we could determine with our empirical statements alone.³⁸

So far as Torrance was concerned, the strength of symbolic logic is in the complexity of the deductive connections it can create, and through conceptual analysis explicate that which is implicit in previously known propositions.

In an effort to retain the contributions of formal logic of symbolic form without carrying over its limitations, Torrance proposed that inferential precision should be aspired to, but without the requirement of direct empirical correlates at each moment in the discursive chain. Rather this detachment must be complemented by a primary attachment to reality at key points.

Logic needs to be detached not only from physics [...] but from all ontological ties such as metaphysics of being understood in the old classical sense, if it is to be free to develop the exact forms of thought and expression which are required in the construction of systems, but on the other hand if it is to fulfil a function at all relevant to the purpose of the sciences it must be open to being which is the conceptual source of our thought-forms³⁹

Torrance's suggestion is that while inferential chains must be free from the requirement of an ontological correlate on each of its points for the sake of developing coherent and

³⁶ Torrance, *TS*, 252.

³⁷ See also, Luoma, *Incarnation*, 71.

³⁸ Torrance, *TS*, 250.

³⁹ Torrance, *TS*, 253.

precise systems of thought, this deductive system must be open to reality. This means that the inferential chain must be attached to reality by empirical correlates at key points because the logical consistency of an inferential system cannot be demonstrated within the system, but only from beyond the system.⁴⁰ A favoured example of Torrance's for this point was the contention of Kurt Gödel in his 1931 essay 'On Formally Undecidable Propositions of *Principia Mathematica* and Related Systems'. So far as Torrance was concerned, Gödel overturned the hegemony of the deductive, axiomatic method in mathematics by demonstrating that no formal mathematical system can be both consistent and complete in itself.⁴¹

Torrance's point is that the conceptualising power of the human mind demonstrated in the valid inference of symbolic logic is not a *sufficient* condition for knowledge, but it is a *necessary* condition for knowledge.⁴² Torrance's position can be traced to the influence of Morris Cohen, who described deductive reason in relation to the empirical component of knowledge as the necessary but insufficient condition of knowledge.⁴³ But on what terms is the valid inference of symbolic logic a necessary but insufficient condition for knowledge? Stevick rightly notes that Torrance 'does not wish to do away with formal, abstract logic',⁴⁴ arguing that Torrance used formal logic to ensure non-contradiction and to 'work out the implications of what we know'.⁴⁵ As Torrance stated, there may be an artificial detachment of the inferential chain from

⁴⁰ Torrance, *TS*, 255-256.

⁴¹ Torrance, *Reconstruction*, 60; *TS*, 243 & 255; *STI*, 87-88; *GG*, 70; *CDG*, 86-87; *GR*, 100; T.F. Torrance, *Space, Time and Resurrection*, Edinburgh: Handsel Press, 1976, 15 & 188-189; *DCO*, 52. Nagel and Newman, *Gödel's Proof*, 4-6, 98; R. Smullyan, *Gödel's Incompleteness Theorems*, Oxford: Oxford University Press, 1992, 1; 106; 112; R. Penrose, *The Emperor's New Mind: Concerning Computers, Minds and the Laws of Physics*, Oxford: Oxford University Press, 1989, 132f, 137-146; F. Norris, 'Mathematics, Physics and Religion: A Need for Candour and Rigour', *Scottish Journal of Theology* 37.4 (1984), 457-470, 459-460; Kline, *Mathematical Thought From Ancient to Modern Times*, 3.1182-1211 (esp. 1206-1207).

⁴² Torrance, *TS*, 249, 250.

⁴³ Cohen, *Preface*, 55.

⁴⁴ Stevick, 'Openness and Formal Logic', 49.

⁴⁵ Stevick, 'Openness and Formal Logic', 49.

correlation to reality, such that (through establishing their logical consequences), the unsoundness of the materially false hypothesis may be demonstrated.⁴⁶

However, Torrance meant more than Stevick recognizes. Formal logic does not only ensure non-contradiction or work out the implications of what we know by conceptual analysis. Indeed, Torrance retained the place of valid inference so to facilitate the further disclosure of the actual connections in reality.⁴⁷

the employment of a logical calculus to combine the significant relations of our thought into an integrated concept which enables us to grasp the sequence of the demonstration as a whole and which thus enables us to see more clearly the objective relations in the real world, but in so far as it engages in a compound semantic act it often opens up for us the door to new knowledge⁴⁸

The thought of Hutten is important in this connection.⁴⁹ According to Hutten, while the development of rational systems of discursive validity is an essential part of knowledge, the rational structure of our conceptual systems is not a product of the epistemic qualities of the system, but rather is derived from the order of reality. In this way, Hutten argued that complementarity between our discursive systems and the orderliness of the actual world emerges: ontic order is the source of the orderliness of our rational systems.⁵⁰ Hutten argued that the order of our inferential systems is ‘generated by both the inner and outer world’,⁵¹ indicating a correlative relation between formal validity of our inner conceptual systems and the actual connections in outer reality whereby the validity of our deductive systems is grounded in the ontic coherence of reality. The actual orderly connections of reality are the very grammar of our rational systems, and it is only through our orderly rational systems that the inherent orderliness of the actual world can be

⁴⁶ Torrance, *TS*, 253-254.

⁴⁷ See also, Newell, ‘Participatory Knowledge’, 47-48.

⁴⁸ Torrance, *TS*, 256.

⁴⁹ Torrance, *TS*, 240ff.

⁵⁰ Hutten, *Origins of Science*, 123-125, 166-170.

⁵¹ Hutten, *Origins of Science*, 125.

increasingly apprehended.⁵² Seen in this connection, Torrance's coordination of deductive reasoning with observational elements of knowledge is the means by which further discovery of the actual connections in reality is possible.

Torrance's nuanced assessment of symbolic logic is instructive with respect to his subsequent proposals. On the one hand, Torrance recognized the necessity of the systematic connection between propositions. On the other hand, Torrance could not accept the marginalisation of the semantic connection and the actual connections of reality through the exclusive prioritization of the systematic connection via the generation of symbolic notation. Accordingly, Torrance proposed that while the systematic connection and the semantic connection should be distinguished, they should be intimately related.⁵³ In other words, conceptual representations must include both a connection to reality and also the formation of valid inferential sequences. Accordingly, Torrance resisted the use of formal logic operating by its own laws irrespective of the state of affairs beyond the logical system,⁵⁴ but still acknowledged the necessity of valid inferential reasoning in human knowledge.

The synthesis of the logic of empirical form and the logic of systematic form is the way in which Torrance sought to hold together the necessary but insufficient condition of valid inference in connection to reality.

2.0. The Synthesis of the Logic of Empirical Form and the Logic of Systematic Form

Through the synthesis of the logic of empirical form and the logic of systematic form, Torrance attempted to develop a mode of rationality which values valid inference

⁵² Hutten, *Origins of Science*, 166-170.

⁵³ Torrance, *TS*, 225-226.

⁵⁴ See Torrance's exchange with Brand Blanshard. 'The Theology of Karl Barth', *The Scotsman*: April 14th, 4; April 16th, 6; April 19th, 6; April 22nd, 6; April 23rd, 6; April 30th, 6, subsequently republished, I. Torrance and M. Torrance, 'Skirmish in the Early Reception of Karl Barth in Scotland: The Exchange between Thomas F. Torrance and Brand Blanshard', *Theology in Scotland* 16 (2009), 5-22.

alongside the priority of the actual connection to reality. Torrance's aim was to describe an approach to knowledge in which the rational structure of our conceptual representations is positively determined by the actual structure of reality. This should be understood as Torrance's purposeful reversal of how he understood the relation of sensibility and understanding in Kant's thought.

Of the three forms of connection elaborated above,⁵⁵ the empirical connection and the systematic connection pertain to the types of connection accompanied by the intention of human statements. Human statements can either be connected to reality (the semantic connection) or to other statements (the systematic connection). As a function of these two different forms of connection, Torrance developed two important subdivisions in logic.

- (i) *The logic of empirical form.* This is derived directly from empirical contact with reality. Crucially, then, this division within logic derives its particular character from the 'objective relations in states of affairs' (the actual connections in reality).⁵⁶ As such, the logic of empirical form is reasoning by 'first intentions', that is our mental actions formed in response to external facts.⁵⁷
- (ii) *The logic of systematic form.* This is the 'combination of our thoughts in consistent sequences'.⁵⁸ This constitutes the validity of human conceptual structures.⁵⁹ As such, the logic of systematic form is reasoning by 'second intentions', which are statements which are in connection to other statements.⁶⁰

⁵⁵ See above, 160-161.

⁵⁶ Torrance, *TS*, 223.

⁵⁷ Torrance, *Reconstruction*, 80.

⁵⁸ Torrance, *TS*, 223.

⁵⁹ Torrance, *TS*, 222-223.

⁶⁰ Torrance, *Reconstruction*, 80.

It is fundamental to Torrance's approach that these subdivisions do not operate in two isolated spheres, but rather constitute one synthetic structure. The synthesis of the logic of empirical form and the logic of systematic form involves holding together the semantic connection to reality and the systematic connection between propositions under the determination of the actual relations in reality while retaining the distinction between them to form a complex conceptual structure shaped by the reality under investigation.

We must keep steadily in front of us the distinction between the logic of empirical reference which is directed to material relations in objective reality, and the logic of systematic correlation which has to do with formal relations in our theoretic demonstrations, and at the same time see how they are coordinated with each other⁶¹

If the logic of systematic form were not held in relation to the logic of empirical form, it would have no ontic correlate, and if the logic of empirical form were not in relation to the logic of systematic form, human knowledge would remain at the level of sensation alone, and no coherent conceptual representation could be achieved.

The crucial thing about this synthesis is that the logical connections established at the level of the logic of systematic form are shaped by the actual 'inner logic' of reality.

we must respect the empirical form in its own right and use the logical form of our systematic thinking to help us to develop our understanding of it in accordance with its own 'inner logic' which arises not from the calculus we are using but from the systematic connection of things or a 'material logic' in the real world.⁶²

In Torrance's view, the logic of systematic form does not develop its own artificial logical structure of valid inference. Instead, the valid inferences in our mental connections derive from the actual connections in reality itself. Consequently, the valid inference between propositions is a product of the ontic coherence of reality itself.⁶³ In

⁶¹ Torrance, *TS*, 225-226.

⁶² Torrance, *TS*, 262.

⁶³ Torrance's procedure bears some correspondence to the approach outlined by Northrop in which formal logic is used to expose unobservable entities and relations. F.S.C. Northrop, *The Logic of the Sciences and the Humanities*, New York: Macmillan, 1947, 60-61. Luoma, *Incarnation*, 71; Chung, *Mediations*, 53-54. It may be that Torrance was particularly influenced in this regard by Northrop's presentation of the scientific method of Einstein, which according to Northrop included a composite of the 'deductive component' and the 'inductively given'. See F.S.C. Northrop, 'Einstein's Conception of Science', in *Albert Einstein: Philosopher-Scientist*, ed. P.A. Schlipp, New York: Tudor, 1951, 387-408,

this way, Torrance asserted the necessity of the logic of systematic form,⁶⁴ but only as an insufficient condition, in necessary co-ordination with the logic of empirical form. The co-ordination of the logic of systematic form and the logic of empirical form constitutes a composite structure of knowledge that comes under the determination of the actual connections in reality. In this way, Torrance's synthesis of the logic of empirical form and the logic of systematic form can be identified as a syntacto-semantic approach.⁶⁵ Torrance's syntacto-semantic approach is the way in which Torrance set out to accomplish the synthesis of the rational structure and the material content of knowledge. This has its clearest expression in Torrance's thought through his attempt to integrate existence statements and coherence statements. However, before exploring the details of how this is developed through Torrance's work on existence and coherence statements, the important relationship between intuitive knowledge and formal knowledge needs to be introduced.⁶⁶

2.1. Intuition and Formal Knowledge

Torrance proposed the integration of intuition and formal knowledge. However, the integration that Torrance proposed is not the same as the integration of intuition and understanding exemplified by object-making mode of thought, in which the element of understanding imposes 'universal' principles of rationality, through which the variability of sensible data is artificially harmonized. Instead, Torrance adopted a highly stylized understanding of intuition as the means of apprehending reality immediately and as a

391-392, 406-408. When Torrance wrote *TS* he had access to this volume (Torrance, *TS*, 111n2, 115n2, 117n3). Torrance would later refer directly to Northrop's paper. Torrance, *RST*, 147n28.

⁶⁴ Torrance, *TS*, 225.

⁶⁵ For a comparative syntacto-semantic approach to logic, see M. Strauss, *Modern Physics and its Philosophy: Selected Papers in the Logic, History and Philosophy of Science*, Dordrecht: Reidel, 1972, 97-99. See also Strauss' contention that mathematics be used as the logical syntax of physics. Strauss, *Modern Physics*, 63-70, 71-76.

⁶⁶ For similar analyses of the function of logic in Torrance's thought, see Stevick, 'Openness and Formal Logic', 49-50; Martin, *Incarnate Ground*, 313; Newell, 'Participatory Knowledge', 47-52, esp. 50.

whole whereby phenomena are not treated as representations, but rather the manifestation of reality determined by its intrinsic intelligibility. Consequently, Torrance's synthesis of sensibility and understanding needs to be carefully differentiated from that found in his analysis of Kant. Torrance's proposal requires that the intuitive interaction through sensibility with reality is integrated with, and is the ground of, the discursive element of human understanding, where the formation of formal concepts takes place not by the imposition of rational form, but by exposing the rational form that is inherent in what is intuited.⁶⁷

This preliminary sketch of the relationship between intuition and formal knowledge establishes the fundamental contours which are developed by Torrance's important distinction between, and co-operation of, coherence statements and existence statements. The substantive issue is the relationship between intuitive apprehension of the coherence within reality and its formalisation into human logical structures by which that implicit coherence is brought to explicit articulation and so clarified in human

⁶⁷ Some have attributed the presence of the important distinction and relation between intuition and formal knowledge to the influence of Michael Polanyi. See particularly, Weightman, *Polanyian*, 213-215. On the other hand McGrath argues that Torrance was not determined in his thought by Polanyi, but rather that Polanyi afforded Torrance a means to express and amplify positions developed from theological sources. See McGrath, *Intellectual*, 229. Clearly Polanyi's thought was a major influence on Torrance, but in my view Torrance tended to use Polanyi to illustrate and explain positions that he held independent of Polanyi. For example, Torrance first expressed the need to unite discursive and intuitive reason in 1942, (Torrance, 'Place and Function', 34) some four years before even the most ambitious estimation of the date Polanyi came to Torrance's attention through Bernard Lovell (see, Weightman, *Polanyian*, 203). Apart from Polanyi, Torrance drew on theological precedents for his understanding of the relation between intuitive and formal reason. See Torrance's account of the relationship between intuitive and abstractive knowledge in Duns Scotus, where abstractive reason functions as a subordinate partner to intuitive knowledge, facilitating the comprehension of the connections and order in that which is experienced. T.F. Torrance, 'Intuitive and Abstractive Knowledge from Duns Scotus to John Calvin', *De doctrina Ioannis Duns Scoti. Acta tertii Congressus Scotistici Internationalis. Studia Scholastico-Scotistica* 5, Rome: Societas Internationalis Scotistica, 1968, 291-305, 291-305; T.F. Torrance, *The Hermeneutics of John Calvin (Monograph Supplements to Scottish Journal of Theology)*, eds. A.I.C. Heron and I.R. Torrance, Edinburgh: Scottish Academic Press, 1988, 4-5. Torrance understood John Major to have held that intuitive and abstractive knowledge are orientated to the same object as the 'intrinsic connections between things is revealed through the power of logical reasoning'. See Torrance, *HJC*, 25-57 (cited, 29). See also Torrance's understanding of Calvin's thought as characterized by a similar composite of intuitive and abstractive knowledge. Torrance, *HJC*, 86-95, 100-108, 111-126 (esp. 118-119), 161-165; T.F. Torrance, 'Knowledge of God and Speech about Him according to John Calvin', *Revue d'Histoire et de Philosophie Religieuses* 44 (1964), 402-422, 409-411, 415-416.

understanding. In this way, Torrance's approach to knowledge is a complex synthesis of different components.

2.1.1. Intuition

Torrance understood intuition in a highly distinctive way. For Torrance, intuition is the pre-conceptual mode of apprehension on account of which reality is apprehended immediately and as a whole.⁶⁸ Intuition is an anticipatory glimpse of reality in its totality, which serves as the basis for our subsequent concepts. Through intuition, the inquirer gains an unaccountable and initially inarticulate insight into reality that is governed by the inner structure of reality.⁶⁹ In this connection, intuition is 'our apprehension of a reality in its objectivity and unity, as a whole'.⁷⁰

In Torrance's sense, intuition is the way intrinsic intelligibility of reality is impressed in a pre-conceptual fashion upon the human knower through phenomena.⁷¹

intuitive knowledge is direct knowledge of an actually existent object in its completeness apprehended as it is in itself (*sicut est in se*), as something intelligible in itself (*per se intelligibile*) and therefore in accordance with its rational mode of being.⁷²

Through intuition, then, an immediate impression of reality in its intrinsic intelligibility is made upon the knower. Torrance understood intuition to be the 'inexplicable apprehension or sudden insight into hidden coherences or intelligible order which is indispensable at all stages of establishing knowledge, in discovery and in verification'.⁷³ Torrance contended that the inchoate awareness of reality is not itself a logical

⁶⁸ Torrance, *TS*, 165n3. For an example of this in modern mathematics, see P. Maddy, 'Perception and Mathematical Intuition', *Philosophical Review* 89.2 (1980), 161-196, 178-182. See also, Friend, *Philosophy of Mathematics*, 37-40.

⁶⁹ Torrance, *CTSC*, 62; *TCFK*, 135. See, Chung, *Mediation*, 56-57; Martin, *Incarnate Ground*, 240-241; Colyer, 'Scientific Method', 214.

⁷⁰ Torrance, *TS*, 165n3. Achtemeier, 'Truth of Tradition', 364-365.

⁷¹ Torrance, *CTSC*, 62-63; 'The Framework of Belief', 9; *TCFK*, 155-156. See also, Gunton, *Theology of Revelation*, 35n26.

⁷² Torrance, *HJC*, 4-5.

⁷³ Torrance, *BSCL*, 139. Martin, *Incarnate Ground*, 256, Weightman *Polanyian*, 71ff.

connection.⁷⁴ The pre-logical status of intuition, in the knower, is essential for by it the inherent order of reality imposes itself upon the mind of the knower in lieu of the logical processes of the knower,⁷⁵ and so undistorted by a preliminary mode of rationality.

Through this intuitive insight, the internal structure of reality takes shape in a pre-logical way in the awareness of the observer.⁷⁶ The adequacy of intuitive insight into the structure of reality is very important to Torrance's thought. Torrance contended that the inchoate awareness of reality is not itself a logical connection.⁷⁷ Intuition, therefore, is the essential source for the formal knowledge of the knower.⁷⁸

2.1.2. Formal Knowledge

Formal knowledge is the development of explicit, conceptual knowledge that can be shared across more than one epistemic subject. Torrance did not understand formal knowledge to be inert. Instead, formal knowledge is to facilitate the further apprehension of the coherence within reality. As might be expected, the direction of transfer of intelligibility is very important. Formal knowledge does not give mental representation to reality by the *imposition* of intelligibility upon what is experienced; rather, it does this through the *exposition* of the intelligibility that is nascent in our primary encounters with reality through intuition.⁷⁹ At the level of formal knowledge, the order inherent in reality

⁷⁴ Torrance, *RST*, 160. Achtemeier, 'Truth of Tradition', 364, 368; Colyer, *How to Read*, 334; Kaiser, 'Humanity in an Intelligible Cosmos', 245.

⁷⁵ Martin, *Incarnate Ground*, 246; Newell, 'Participatory Knowledge', 110, 114.

⁷⁶ This is consistent with Torrance's position of *prolepsis*. Torrance, *RST*, 84-85. See Morrison, *Self-Revealing*, 117-123. Morrison contends that it is in this way that the knower comes under the determination of the existing patterns in reality. See also, D.W. Hardy, 'T.F. Torrance', in *The Modern Theologians: An Introduction to Christian Theology since 1918*. 3rd Edition, ed. D. Ford, Malden: Blackwell Publishers, 2005, 163-177, 63-177; Martin, *The Incarnate Ground*, 160-164.

⁷⁷ Torrance also understood Einstein to have eschewed 'logical abstraction from experience'. Torrance, *RST*, 160. Achtemeier, 'Truth of Tradition', 364, 368; Colyer, *How to Read*, 334; Kaiser, 'Humanity in an Intelligible Cosmos', 245.

⁷⁸ Torrance, *TCFK*, 119, 122-123.

⁷⁹ Weightman, *Polanyian*, 218-219. See also Colyer, *Doctrine*, 18-19.

determines the rational structure of our concepts.⁸⁰ This is brought out most clearly in Torrance's discussion of the relation of coherence and existence statements.

2.2. Existence Statements and Coherence Statements

Existence statements refer directly to reality as it is experienced (the logic of empirical form). Coherence statements are concerned with logical validity between statements (the logic of systematic form).⁸¹ Existence statements and coherence statements perform different functions, bearing a different relation to the actual connections of reality. Torrance's synthesis of the logic of empirical form and the logic of systematic form is expressed as the synthesis of existence statements and coherence statements.

Torrance's most detailed analysis of the relationship between existence and coherence statements is in the fifth chapter of *Theological Science*, 'Problems of Logic'.⁸² The question addressed in 'Problems of Logic' is how can human logical forms be brought into relation to the 'logic' of objective reference, which is the intrinsic intelligibility of reality? Torrance had two problems in view.

First, there is the problem of relating the logic of human conceptual systems and the actual connections (the 'material logic') of the thing known. This is the problem of *ontologic*.⁸³ To this, Torrance's answer was unequivocal: the rational structure (i.e. the logically valid connections) of our concepts is not autonomous, but is rather determined by the actual connections in reality apprehended through the intuition of the knower.

In this connection, Stevick has demonstrated that Torrance located truth in neither the coherence of human conceptual systems or in their correspondence to reality. Instead,

⁸⁰ Torrance, *TS*, 260.

⁸¹ Torrance, *Reconstruction*, 52-53.

⁸² Torrance, *TS*, 203-280.

⁸³ Torrance, *TS*, 205.

Stevick argues, Torrance has located truth primarily in being.⁸⁴ In this way, the coherence of our conceptual structures is not located in our conceptual powers but in the coherence of reality itself.⁸⁵ Despite some points of disagreement with Stevick, particularly relevant here is our difference concerning the scope of the role of discursive reason in Torrance's epistemology, it is my view that Stevick's analysis of Torrance's epistemological procedure is broadly correct (as is substantiated in the following discussion).

Second, there is the problem of relating the rational structure of theological concepts with the truth of God. This is the problem of *Theologic*.⁸⁶ The question of how human logic relates to the truth of God is the substantive problem addressed by Torrance's NT, which is discussed in Chapter Five.

Attention here is on the problem of *ontologic*. *Ontologic* is the problem of how to relate the logic of human conceptuality to the material 'logic' of the actual ontic structure of reality.

2.2.1. Existence Statements

Existence statements belong to the logic of empirical form in that their function is a direct reference to external reality. Existence statements are statements about 'matters of fact'; they are concerned with actual experience of real objects.⁸⁷ The primary function of existence statements is semantic, pointing beyond themselves to the state of affairs external to the knower.⁸⁸ As such, existence statements are intended to be utterly open to

⁸⁴ Stevick, 'Kata Physin', 115.

⁸⁵ Stevick, 'Kata Physin', 156f; 'Truth and Language', 76-77, 91-92.

⁸⁶ Torrance, *TS*, 205.

⁸⁷ Torrance, *TS*, 164.

⁸⁸ Torrance, *TS*, 226-228.

reality, signifying reality:⁸⁹ existence statements are acts of reference in which we ‘cognise something other than ourselves’.⁹⁰ This dominant vertical reference of existence statements is described by Torrance as their *analogical* reference to reality,⁹¹ not meaning analogical proportion, but rather that their content is in their reference back to the reality.⁹²

While existence statements have a dominant vertical reference (‘the truth-reference of existence-statements is primarily to existents’⁹³), they also have an implicit horizontal connection that is subordinate to the vertical reference. Torrance understood existence statements to come in ‘clusters or groups and manifest patterns of signification through their correspondence with each other’.⁹⁴

Horizontally, as it were, the analogic of existence-statements is the logic of their *orderly conference* which comes to view as we trace the way in which they correspond to one another through referring to repeatable patterns in the same reality, i.e. on the ground of a correspondence between its disclosures to us. Existence-statements are thus linked to one another through their conjoint function in transcendent reference, and are to be compared with each other in a triadic relationship in which their conference of reference yields a conceptual pattern or epistemological harmony *through* which the objective pattern in the denoted reality discloses itself⁹⁵

As the reality referred to by existence statements has its own actual, inherent connections, so a cluster of existence statements that refer to reality are characterized by their own implicit order. Therefore, the coherence between existence statements is a function of the actual connections within reality itself. Existence statements stand in implicit connection with one another on account of the order they derive from the objective relations in reality (‘they presuppose, point to, and fall in with, the objective order in the nature of

⁸⁹ Torrance, *TS*, 230; *GG*, 32-37; *GR*, 34-38; *RET*, 58-61; 65-71; 94-97; *RST*, 153-154; *TCFK*, 306-310; *Meaning*, 245-274; ‘Theological Realism’, 169-173. See also, Stevick, ‘Truth and Language’, 75-79; ‘Openness and Formal Logic’, 55-56; Luoma, *Incarnation*, 68.

⁹⁰ Torrance, *TS*, 226.

⁹¹ Torrance, *TS*, 238; *GG*, 114-116.

⁹² Torrance, *TS*, 238.

⁹³ Torrance, *TS*, 170.

⁹⁴ Torrance, *TS*, 227.

⁹⁵ Torrance, *TS*, 239.

things'⁹⁶). A network of existence statements referring to one reality, therefore, forms an inchoate pattern that corresponds to the antecedent structure of the actual connections in reality.⁹⁷ The validity of this double reference of existence statements is established on Torrance's distinctive understanding of intuition through which reality is apprehended immediately and as a whole. Torrance noted that 'behind existence-statements there are acts of intuition in which the mind is always open to the reality beyond'.⁹⁸ That is to say, 'existence-statements express our intuitive apprehension of the external world in its own forms'.⁹⁹

2.2.2. Coherence Statements

Coherence statements belong to the logic of systematic form in that they are orientated to valid continuity between propositions. Coherence statements pertain to the 'relations of ideas', meaning that they are statements which are connected through valid inference by deductive reasoning.¹⁰⁰ The primary intention of coherence statements is syntactical, and Torrance associated them with formal logic,¹⁰¹ related by valid logical connections.¹⁰²

⁹⁶ Torrance, *TS*, 227.

⁹⁷ Torrance, *Reconstruction*, 54.

⁹⁸ Torrance, *TS*, 169.

⁹⁹ Torrance, *TS*, 226.

¹⁰⁰ Torrance, *TS*, 164.

¹⁰¹ Torrance, *TS*, 246.

¹⁰² Torrance, *Reconstruction*, 53.

We may express this differently by saying that no meaningful coherence-statements can be made except in correspondence, consistency and integration with others in a pattern of meaning; but the pattern of meaning does not hang in the air, as it were; for it is grounded upon existence statements. Now the pattern itself is two-fold. On the one hand, we are concerned with a pattern in the existent or object which consists of relations of fact, but on the other hand we have a pattern in our cognition which consists of relations of ideas – the first we may call the material pattern, and the second the formal pattern. We never discern anything as an absolute particular, but only in real relations which may be internal to it or external. We intuit it as a whole with these relations, and therefore not apart from a pattern discerned in the object. Our existence-statements refer to this and in that reference have their meaning. But when we seek to express this meaning we represent it in the relations of ideas and so coherence-statements arise which must be consistent with one another in reference to the existent and in that consistency they offer a formal pattern of meaning.¹⁰³

Torrance's point is that existence statements come in clusters that are characterized by an implicit connection owing to the antecedent and actual connections in reality itself. This gives rise to a double pattern: (i) an implicit pattern between our existence statements (the 'formal pattern'), which is derived from (ii) the primary pattern which is the structure of the object in question (the 'material pattern'). This is another way of saying that existence statements have a primary vertical reference to reality and a subsidiary horizontal reference to one another. The significance of this for coherence statements is that coherence statements give expression to the formal pattern implicit between existence statements. It is this that means the rational structure of coherence statements is not left 'hanging in the air', which carries important echoes of Torrance's later critique of Barth's reluctance to reconstruct natural theology within revealed theology. Therefore, coherence statements are statements which express the implicit connections between existence statements through presenting them as the relations of ideas.¹⁰⁴ It follows that the rational structure characterized by valid inference in coherence statements is not the free creation of humanity, but is determined by the intrinsic intelligibility of reality: 'our coherence statements ought to have an *ectypal* relation to existents'.¹⁰⁵

¹⁰³ Torrance, *TS*, 171

¹⁰⁴ Torrance, *TS*, 170.

¹⁰⁵ Torrance, *TS*, 172.

This gives rise to the important distinction between ‘relations of ideas’, and ‘relations in matters of fact’.¹⁰⁶ In making this distinction, the formal logical structure of coherence statements is not conflated with the actual connections in reality, but our conceptual representations are used as signs to facilitate further disclosure of the implicit pattern in existence statements.¹⁰⁷ In this way, the making explicit of the implicit pattern of our existence statements is necessary in order for the actual connections in reality to be comprehended, for it is coherence statements that connect existence statements through valid inference.¹⁰⁸

2.2.3. The Synthesis of Existence Statements and Coherence Statements

The appropriate relation of our language to reality is achieved by the synthesis of existence statements and coherence statements. The synthesis of the logic of empirical form and the logic of systematic form is well represented by the synthesis of coherence statements and existence statements. However, the synthesis is not an artificial synthesis in which a ‘logico-mathematical calculus is clamped down upon empirical form’,¹⁰⁹ after the fashion of object-making thought. Instead, the logic of systematic form ‘serves the empirical form’, by the construction of a cognitive structure of valid inference through which the implicit coherence between existence statements is made explicit.¹¹⁰

Before examining the specifics of this synthesis, the fact that Torrance’s vision of a syntacto-semantic logical approach is established upon the ontic basis of the ‘concrete universal’ must be considered.¹¹¹ The ‘concrete universal’ is a concept that Torrance only used once in his whole corpus. Despite its rarity, it plays a crucial role in his

¹⁰⁶ Torrance, *TS*, 171.

¹⁰⁷ Torrance, *TS* 171-172.

¹⁰⁸ Torrance, *TS*, 246.

¹⁰⁹ Torrance, *TS*, 257.

¹¹⁰ Torrance, *TS*, 257.

¹¹¹ Torrance, *TS*, 243.

argumentation in *Theological Science* as the locus upon which existence statements and coherence statements overlap. Crucially, it is by the concrete universal that Torrance explained how the actual connections in reality engender the implicit connections between existence statements which subsequently relate to the explicit connections that are developed through deductive reasoning at the level of coherence statements.

The use of metaphysical terminology in Torrance's notion of the 'concrete universal' is uncharacteristic of him. In my view, what Torrance has in view is comparable to a form of immanent realism pertaining to universals:¹¹² the 'concrete universal' identifies the real existence of the universal which is necessarily instantiated in the concrete particular. To substantiate this view, Torrance drew a contrast between the concrete universal and abstract universals.¹¹³ Abstract universals are a product of a particularist ontology, where the universal is not engaged with as something real in itself but rather is constituted by the aggregate of its particulars. The concrete universal identifies that the division of reality into certain classes of things is inherent to reality.

Torrance's primary concern is not with metaphysical argumentation. Rather, through the notion of the concrete universal, Torrance attempted to articulate his view that the coherence implicit in phenomena is not simply the product of our formal activity, but is actually real.¹¹⁴ The point of Torrance's concrete universal is to demonstrate how the coherence in human rational structures is actually pressed upon us by the organic coherence in reality itself, and is not a product of the imposition of rational form from the side of humanity (i.e. Torrance is not a nominalist).¹¹⁵ In this way, the concrete universal is the ontic basis upon which Torrance attempted to establish a syntacto-semantic

¹¹² A.J.D. Irving, 'What does Athens have to do with Edinburgh? Can an Immanent Realist View of Universals Help us Understand T.F. Torrance's Conception of Reality', *Participatio: The Theological Journal of the Thomas F. Torrance Theological Fellowship*. Forthcoming, 2017.

¹¹³ Torrance, *TS*, 243.

¹¹⁴ Torrance, *TS*, 243.

¹¹⁵ Torrance, *TS*, 243.

synthesis in which reality is apprehended out of its own inner logic, rather than imposing a rational form upon it.

Given the importance of this to Torrance's approach, it is a surprise that he does not justify (or even fully explain) this metaphysical position. On the strength of his argumentation in this text alone, the ontological basis Torrance provided cannot sustain the epistemological superstructure he built upon it. For this reason, Torrance's notion of the concrete universal needs to be held in connection with his theologically determined understanding of reality through the doctrine of creation and the doctrine of the Trinity (examined in Chapter One) in order to have the requisite force.

This notwithstanding, existence statements and coherence statements overlap upon the locus of the concrete universal because it is here that the empirical level of knowledge is characterized by an implicit coherence that needs to be clarified and brought to formal articulation at the level of systematic form. It is on this foundation that existence statements and coherence statements work together to facilitate the disclosure of the intrinsic intelligibility that governs phenomena.¹¹⁶ Accordingly, the purpose of the concrete universal is to establish that existence statements refer to a reality that is internally coherent. Consequently, the task of coherence statements is to clarify the connections between the existence statements. By so doing, the coherence that is implicit within existence statements is brought to explicit articulation through coherence statements.¹¹⁷ Torrance stated that 'coherence is ultimately grounded in the nature of the things referred to', the substantiation for which was discussed in Chapter One.¹¹⁸

¹¹⁶ As Stevick rightly comments, 'our cognitive systems are coherent on account of the coherence of the object'. Stevick, '*Kata Physin*', 133.

¹¹⁷ Torrance, *Reconstruction*, 54. Spjuth argues that, for Torrance, the coherence of human conceptual systems is determined by the structure of reality through intuition. Spjuth, *Creation*, 96; Miller, 'Participation', 62-63.

¹¹⁸ Torrance, *TS*, 246.

As the cluster of existence statements are characterized by an implicit order on account of the objective relations in reality itself, through the coordination of existence and coherence statements, the actual connections which are the material logic of the real world is increasingly disclosed.

These are the points where coordination takes place between the logic of existence-statements and the logic of coherence-statements, on the one side through empirical operations to determine relations within the real world, and on the other side through the employment of logical calculus to combine the significant relations of our thought into an integrated Concept which enables us to grasp the sequence of the demonstration as a whole and which thus enables us to see more clearly the objective relations in the real world, but in so far as it engages in a compound semantic act it often opens up for us the Door to new knowledge¹¹⁹

The function of coherence statements is to bring to formal articulation the connections that obtain between the existence statements. In so doing, at the level of coherence statements, the observer is able to explicitly grasp the actual state of affairs in the real world, which themselves have governed the pattern of existence statements.¹²⁰

The movement of Torrance's thought is from the complex (the cluster of existence statements) to the simple (the coherence statement that renders explicit the connection between the existence statements). Torrance's thought continues this trajectory in a subsequent level of logical validity.¹²¹ Upon the logic of systematic form, Torrance stated the need for a 'meta-meta-language'.¹²² This is the level 'at which we interpret the formulations of this system and determine its mode of connection and consistency'.¹²³ Crucially, the higher levels serve the levels below by giving articulation to their implicit connections. Here, the structure is the same as between coherence and existence statements. Just as coherence statements give explicit expression to the connections between a cluster of existence statements, the connections between a cluster of coherence

¹¹⁹ Torrance, *TS*, 256.

¹²⁰ Stevick, 'Openness and Formal Logic', 61.

¹²¹ Torrance, *TS*, 116-119.

¹²² Torrance, *TS*, 259.

¹²³ Torrance, *TS*, 259.

statements are made explicit in the abstract notation of the meta-meta-language.¹²⁴ In this way, logical simplicity is the means by which the depth of the internal connections within reality is expounded.¹²⁵

Torrance explained the synthesis of the logic of empirical form and the logic of systematic form through the integration of existence statements and coherence statements by modifying Kant's famous dictum regarding intuition and concepts.

to posit a radical dichotomy between [existence and coherence statements] is to open up an abyss of sheer unmeaning, e.g. by abstracting coherence-statements from all ontological import. In empirical science no statements are purely analytic or devoid of factual reference, which even mathematical statements cannot be treated as tautologies. Existence-statements and coherence-statements require one another if they are to be significant. To adapt some famous words of Kant, existence-statements without coherence-statements are blind, and coherence-statements without existence statements are empty.¹²⁶

Aside from coherence statements, existence statements are a series of iterative statements that refer to moments of sensation. Alone, the implicit pattern within existence statements on account of the objective structure of the reality would remain implicit. On the other hand, aside from existence statements, coherence statements have no objective reference and are empty sequences of valid inference commensurate to symbolic logic. It is only in the co-operation of the two that human concepts might truly signify toward reality and facilitate its disclosure.¹²⁷ However, the terms of this integration are that cognizable form is not imposed upon phenomena but rather the coherence that is implicitly within phenomena accounts for the rational structure of our concepts.¹²⁸ Torrance has attempted a reversal of the Kantian synthesis, in which our operations of understanding make explicit the coherence in phenomena as the manifestation of the intrinsic intelligibility of reality.

¹²⁴ Torrance, *TS*, 260.

¹²⁵ Torrance, *TS*, 119. Davis, 'Explanatory Account', 58-60.

¹²⁶ Torrance, *Reconstruction*, 53.

¹²⁷ Torrance also called this the truth of signification. Torrance, *RST*, 144.

¹²⁸ Torrance, *GR*, 23; Munchin, *Is Theology a Science?*, 100f.

2.3. Disclosure Models

Torrance thought of concepts as ‘disclosure models’.¹²⁹ A disclosure model is a conceptual representation that is understood to facilitate the disclosure of the intrinsic intelligibility of reality.¹³⁰ In a similar way to theories, disclosure models operate as a lens through which the implicit coherence of reality is clarified, and brought to formal and clear articulation.¹³¹ In the light of this understanding of disclosure models, concepts are not to be confused with reality, but rather they facilitate our apprehension of reality in its intrinsic intelligibility through clarifying the relationships at the empirical level.¹³² The provisional status of theoretical constructs remains an important part of Torrance’s critical realism, for they point beyond themselves to transcendent reality. In this connection, concepts are the medium through which the truth of being of reality is disclosed.¹³³ As such, the integration of coherence and existence statements enables a greater appreciation of the objective relations in reality that gave rise to the coherence in the first place.¹³⁴

3.0. Logical Formalization in Theology

Torrance applied the same formal structure of the synthesis of the logic of systematic form and the logic of empirical form to the procedure of logical formalization in theology. By so doing, Torrance erected a bridge between the synthesis of rational

¹²⁹ Torrance, *GG*, 124-125, 161-2; *TCFK*, 255, 274-275; *TS*, 318; *RET*, 49-51; *RST*, 85-86.

¹³⁰ See Torrance, ‘Review of Heidegger’, 479-480.

¹³¹ Torrance, *RET*, 50.

¹³² Stevick, ‘*Kata Physin*’, 156f; ‘Truth and Language’, 76-77, 91-92.

¹³³ See also, Luoma *Incarnation*, 39-40; Wong, ‘Appraisal’, 142ff; Stevick, ‘*Kata Physin*’, 158-159; ‘Openness and Formal Logic’, 64-65; Myers, ‘Stratification of Knowledge’, 3-4; Lee, *Living in Union*, 41-55; Colyer, *How to Read*, 187-189.

¹³⁴ It is from this basis that Torrance’s stratification of knowledge should be understood as the model through which Torrance conceptualized the integration of the logic of empirical form and the logic of systematic form. See Torrance, *RST*, 147-148; *RET*, 35-36; *CDG*, 84-86; Torrance, *TS*, 258-259; *TCFK*, 43. See also Myers, ‘Stratification of Knowledge’, 1-11; Habets, *Transposition*, 29-31; Lee, *Living in Union*, 51-55; Achtemeier, ‘Truth of Tradition’, 367-368; Stevick, ‘*Kata Physin*’, 162-163; ‘Truth and Language’, 79-90; Martin, *Incarnate Ground*, 303-315.

structure and material content in the problem of *ontologic*, and the way in which he would come to address the problem of *Theologic*. This discussion only introduces this theme, and will be developed at length in Chapter Five.

Theology, Torrance argued, cannot do without ‘logical machinery’.¹³⁵ Like other disciplines, theology must have a rational structure through which the reality it seeks to know is given coherent conceptual representation.¹³⁶ Torrance identified this as a sort of theological calculus, a formalized theological language through which ‘to unfold the *inner logic* of his subject-matter’.¹³⁷ The purpose of this theological notation is to ‘lay bare the essential structure of theological knowledge in its dogmatic integration’.¹³⁸ The *homoousion* is an example of this as a theological term that gives conceptual representation to the connection between the Father and the incarnate Son.¹³⁹

Corresponding to the logic of systematic form, Torrance proposed the development of a theological logic of systematic connection for purposes of expounding the inner structure of the distinctive subject-matter of theology. However, just as the logic of systematic form required the logic of empirical form, this ‘theological calculus’ is meaningful only in its relation to actuality.¹⁴⁰

That is the task of a living and constructive theology, to discover and work out the interior logic of our knowledge of God, but in the nature of the case it will not be able to avoid constant tension between the material logic thrust upon it from the side of the creative and redeeming operations of God in Christ, and the logico-verbal patterns of our thought and speech [...], for the Truth of God as it in in Jesus Christ breaks through all our linguistic and verbal forms.¹⁴¹

The human element of developing ‘logico-verbal patterns’ is necessary in the task of theology, but that this subjective element of creaturely objectivity is under the

¹³⁵ Torrance, *TS*, 263.

¹³⁶ Torrance, *TS*, 263.

¹³⁷ Torrance, *TS*, 269.

¹³⁸ Torrance, *TS*, 269.

¹³⁹ See also, Davis, ‘Explanatory Account’, 60-61.

¹⁴⁰ Torrance, *TS*, 273.

¹⁴¹ Torrance, *TS*, 279.

determination of the reality of God in his self-revelation. The task of theology is to expound the inner connections of God's self-revelation in formal theological systems, by the use of human modes of reasoning. However, these systems of valid logical inference can never be sufficient on their own. Instead, they are shaped by and dependent upon the actual content of God's self-revelation which far exceeds the human capacity to represent in our logical systems. The dynamic between the requirement of human logical connections and the priority of the 'material logic' of God's self-revelation creates a tension between the material logic of God's self-revelation and the coherent conceptual structures used by humanity to cognize. For this reason, the incarnation is the cornerstone of Torrance's proposal. It is through the incarnation that the knowledge of God is actualized in creaturely objectivity. On this basis, creaturely objectivity and divine revelation cannot be held apart as parallel entities in the task of theology as the position of creaturely objectivity in theological knowledge is secured in the person of Jesus Christ.¹⁴²

4.0. Critical Responses to Torrance on Logic: Engagement and Responses

The synthesis of rational structure and material content attempted in Torrance's synthesis of the logic of empirical form and the logic of systematic form has attracted strong criticism. Broadly speaking, the major criticisms of Torrance's approach fall into two distinct groups: (i) the exclusivity of theological logic in Torrance's schema and (ii) criticism of Torrance's notion of intuition.

¹⁴² Torrance, *TS*, 273, 279.

4.1. Logical Exclusivity

With respect to his synthesis applied to logical formalization in theology, Torrance has been criticized for rendering the forms of logic used in theology exclusive to theology, and so alien from the forms of logic used in other disciplines.

4.1.1. Donald Klinefelter: The Dualism of Object-Orientated Logic

Klinefelter has given a robust critique of Torrance from the perspective of the analytic philosophy of religion. Klinefelter saw a form of epistemological dualism in Torrance's work on logic, arguing that Torrance's proposals create a situation in which discrete disciplines operate with forms of logic that are not universal and consequently cannot be held in positive relation.¹⁴³ Accordingly, theological forms of reasoning are bifurcated from other philosophical or scientific forms of reasoning, leading to the conceptual isolation of theology.¹⁴⁴

Klinefelter argued that in identifying the objective structure of reality (the material relations) as the source of subsequent conceptual coherence (the formal relations), Torrance embraced forms of thought that cannot be verified or negated by the norms of logical analysis.¹⁴⁵ Accordingly, there can be no cross-discipline verification of any theological statements, for the logical structure with which they work bears no correspondence to the logical structure in statements made in another discipline.¹⁴⁶ This situation is exacerbated in theology, because the object under inquiry in theology is radically different to any other object, rendering its forms of connection more unusual.

¹⁴³ Klinefelter, 'God and Rationality: A Critique of the Theology of Thomas F. Torrance', *The Journal of Religion* 53.1 (1973), 117-135, 134.

¹⁴⁴ Klinefelter, 'God and Rationality', 135.

¹⁴⁵ Klinefelter, 'God and Rationality', 121.

¹⁴⁶ Klinefelter, 'God and Rationality'. 124.

Klinefelter rightly noted that Torrance reacted against symbolic, logic, and the application of one universal logical method that could be applied in an *a priori* fashion to any object of inquiry. Furthermore, Klinefelter is right to observe that Torrance's commitment to an 'intelligibility inherent in the nature of things'¹⁴⁷ is the metaphysical root of this realism.¹⁴⁸ As the inherent structure of the object exercises determinative influence, different fields of study operate with different logical forms. Klinefelter's point is that Torrance's logical procedure in theology is disconnected from modes of analysis and verification that are natural to other forms of inquiry, thus rendering unclear in what sense it is properly to be described as 'objective' in any meaningful way.¹⁴⁹

On one hand, Klinefelter's analysis accurately reflects the iconoclastic character of Torrance's approach. Torrance aimed to dismantle shibboleths of the Age of Reason such as the universal scientific method and autonomous, symbolic logic. In this way, Klinefelter rightly demonstrates that Torrance attempted a radical redeployment of logic in which logical form is determined from reality and as such is not bound by the laws and norms of abstract logical validity. It is apparent to me that Torrance would have accepted these criticisms as observations.¹⁵⁰

However, on the other hand, Klinefelter's critique does not sufficiently engage with and refute the ontological basis of Torrance's rejection of autonomous logic. Simply, for Torrance, the conviction that reality is inherently coherent and constituted by its own actual connections means that there is no other option than to proceed by utter determination from the side of the object. Torrance's repudiation of autonomous formal

¹⁴⁷ Torrance, *GR*, 42.

¹⁴⁸ Klinefelter, 'God and Rationality', 133.

¹⁴⁹ Klinefelter, 'God and Rationality', 127. See the letter of Blanshard, *The Scotsman*, April 30th, 1952, 6.

¹⁵⁰ Torrance, *TS*, 154-154. See also, Luoma, *Incarnation*, 71f.

logic does not mean epistemological anarchy.¹⁵¹ Instead, Torrance rejected the priority and sole-sufficiency of logical formalization, identifying that the coherence of our logical systems is not the free creation of humanity, but rather the result of the coherent connections in the reality encountered. As such, Klinefelter's critique of Torrance on the grounds of not conforming to antecedently determined universal laws of reason does not overcome Torrance's position, but rather describes it.¹⁵² Moreover, the interface between theology and other forms of human reasoning for Torrance is not established on the application of one universal method, but rather on the necessity to operate within *creaturely* ways of knowing.¹⁵³

4.1.2. Carl Henry: Compromising the Universal Validity of Truth

Henry argued that Torrance's account of logical formalization in theology is in error on the grounds that it holds human logic in relation to God aside from the use of universally applicable logical connections. The problem, Henry argues, is that Torrance's approach requires a new logical structure of human thought which inhibits the universal validity of theological truth on the grounds that theology will be expressed with its own exclusive logical structure. As such, Henry argued that Torrance's attempt to provide an account of how the logic of humanity relates to God fell short of evangelical adequacy, which Henry considered to include the use of one universal system of logic such that its statements might be comprehensible to all.

Central to Henry's critique is the requirement of Torrance's system that the rational structure of concepts is determined by the nature of the object. Henry's concern with this is that it requires a 'divine humanity' to be such knowers, and it disregards an

¹⁵¹ See Munchin's contrast between Torrance and Feyerabend, Munchin, *Is Theology a Science?*, 80, 220; A. Purves, 'The Shape of Torrance Theology', *Theology in Scotland* 16 (2009), 23-39, 23.

¹⁵² Eugenio, *Communion*, 9; Morrison, *Self-Revealing*, 274.

¹⁵³ See below, 304-310.

understanding of the *imago Dei* as intrinsically having categories of thought and logic that are adequate for the knowledge of God through his general revelation. In Henry's view, this amounts to a conceptual exclusivism that disregards general revelation and so compromises the universal validity of theological truth.¹⁵⁴

Like Klinefelter, Henry's critiques are not borne out of an observed inconsistency in Torrance's own position, but rather out of deep methodological disagreement. Henry's position is irreconcilable to Torrance's on the grounds of the nature of their differing views concerning the relation between the truth of God's self-revelation and human logic.¹⁵⁵ Moreover, Henry is incorrect that Torrance's proposals require a 'divine humanity' in order to know. Henry has not appreciated the centrality of the incarnation and the twofold objectivity of God to Torrance's epistemology. As is discussed in Chapter Five, the incarnation means that the very Word of God has taken creaturely objectivity such that God's self-knowledge (his primary objectivity) is expressed in creaturely space and time (his secondary objectivity), and known in the vicarious humanity of Jesus Christ in our own modes of thought and speech.¹⁵⁶ So far as Torrance was concerned, the knowledge of God is not a product of elevation to divine humanity, but rather the descent of God to humanity.

4.2.Intuition

Intuition is integral to Torrance's proposal, for it is through intuition that reality is encountered as a whole without the interrupting effects of an arbitrary rational schema that could impose rational form upon what we encounter, interrupting our apprehension of its inherent connections. However, it has received strong criticism.

¹⁵⁴ Henry, *God, Revelation and Authority*, 3.214-224.

¹⁵⁵ Habets, *Transposition*, 96-102.

¹⁵⁶ See below, 304-310.

4.2.1. Ronald Thiemann: Theological Foundationalism

Thiemann's broad contention is that theologians in the modern era have attempted to 'justify the claim to knowledge of God and to the God-given character of that knowledge with reference to epistemologies developed independent of Christian faith'.¹⁵⁷ Referring to John Locke, Friedrich Schleiermacher and Torrance, Thiemann argues that modern theologians have established belief in revelation on a rational basis that is acceptable to and common among humanity.

To Thiemann, the problem of accounting for revelation includes 'the attempt to assert both the priority and the relation of God's reality to our linguistic framework',¹⁵⁸ such that the norms of modern reasoning are not normative for theology.¹⁵⁹ Thiemann's point is that revelation's claim of the priority of God over our knowledge can only be maintained through a rejection of 'foundational conceptuality',¹⁶⁰ and so cannot be justified through normal, creaturely conceptuality.¹⁶¹ In this connection, Thiemann insisted that theologians abandoned foundationalism and returned instead to focus solely on God's scriptural self-revelation.

In Thiemann's view, Torrance's insistence that theology is a rational discipline is incompatible with Torrance's recognition of the prevenience of God's revelation and that this incompatibility is demonstrated in Torrance's account of the interaction between the subject and the object, which Thiemann argues is inconsistent with a commitment to the absolute priority of God's revelation.¹⁶² How can theology be both true to its basic

¹⁵⁷ Thiemann, *Revelation*, 10.

¹⁵⁸ Thiemann, *Revelation*, 6.

¹⁵⁹ T. McCall, 'Ronald Thiemann Thomas Torrance and Epistemological Doctrines of Revelation', *International Journal of Systematic Theology* 6.2 (2004), 148-168, 149-150.

¹⁶⁰ Thiemann, *Revelation*, 7.

¹⁶¹ Thiemann, *Revelation*, 10. Ho, *Critical Study*, 26-27.

¹⁶² Thiemann, *Revelation*, 33.

condition in the act of God and also retain a fundamental principle of rationality that the subject is an active agent in the knowing relation?¹⁶³ According to Thiemann, Torrance cannot affirm the reciprocity of the subject-object relation and also affirm that truth resides in the object alone. For this reason, Thiemann argues that Torrance's position can be falsified by demonstrating that the subject-object reciprocity that is integral to critical rationality cannot be applied to theology without denying the fundamental position that truth resides solely in theology's object.¹⁶⁴

From this basis, Thiemann claimed that Torrance's position is untenable, for its core convictions do not hold together. According to Thiemann, it is impossible for theology to satisfy the three points that Torrance's approach requires.

- (i) Theology is a rational discipline exemplifying the characteristics of a true science.
- (ii) The reciprocal relation between the investigating subject and object of inquiry is a general characteristic of rational scientific inquiry.
- (iii) Theology's unique object is the truth which imposes itself on the subject independent of the subject's reciprocal influence.¹⁶⁵

Thiemann claimed that to hold two of these convictions means the exclusion of the third, thereby demonstrating the impossibility of Torrance's position;¹⁶⁶ Torrance cannot identify that theology is a rational discipline and define rationality in the critical sense of interaction between the subject and the object and also insist upon the total priority of the object in God's self-revelation.

¹⁶³ Thiemann, *Revelation*, 37-38.

¹⁶⁴ Thiemann, *Revelation*, 38.

¹⁶⁵ Thiemann, *Revelation*, 38.

¹⁶⁶ Thiemann, *Revelation*, 38.

Thiemann's analysis pivots on his understanding of the concept of intuition in Torrance's thought. Thiemann recognizes that through intuition, Torrance understood the subject to take a 'nonconstitutive role' in the knowledge of God by revelation,¹⁶⁷ whereby the subject is involved in revelation in the sense that human subjectivity is reformed such that it 'corresponds to revelation's essential structure'.¹⁶⁸ Torrance's intention was that through intuition theology might be truly rational, maintaining a proper subject-object relation and respecting the priority of God in his self-revelation. The problem comes in the status of intuition and its relation to cognition. According to Thiemann, intuition in Torrance's thought is not pre-cognitive but is inherently propositional.

This is connected to Thiemann's understanding of Torrance's doctrine of revelation, which Thiemann understands to be a linguistic view of revelation. Correspondingly, Thiemann considers intuition in Torrance's theological epistemology to not be pre-cognitive but rather to be indubitable 'causally imposed knowledge'.¹⁶⁹ Therefore, Thiemann argues that Torrance's conception of intuition is propositional, as 'God's direct imposition of true propositions on the mind of the believer'.¹⁷⁰ Thiemann identifies this imposition of propositions as non-inferential, propositional knowledge (knowledge that is given by experience in the form of propositions that is not derived by analysis of prior propositions).¹⁷¹

Torrance's position flounders, Thiemann argues on the fact that there must be a conceptual framework in place within which an experience is identified as revelatory and so can be rightly understood. However, as soon as this takes place the knowledge of God by prevenient revelation is dragged down into the critical vortex and known through

¹⁶⁷ Thiemann, *Revelation*, 38.

¹⁶⁸ Thiemann, *Revelation*, 38.

¹⁶⁹ Thiemann, *Revelation*, 40, 41.

¹⁷⁰ Thiemann, *Revelation*, 40.

¹⁷¹ Thiemann, *Revelation*, 40-42.

some rational schema of our own categories and concepts.¹⁷² In other words, Thiemann argues that Torrance's notion of intuition is not strong enough to account for the involvement of the subject in the knowing relation without interpreting propositional revelation within a conceptual framework with its provenance in the human mind. As such, Torrance's doctrine of revelation cannot finally be non-inferential, but is established on a more basic foundation.¹⁷³

Thiemann's sophisticated reading of Torrance presents problems which on the face of it appear to be intractable. However, Thiemann's criticisms are established on some fundamental misunderstandings of Torrance's thought.

First, Thiemann misunderstands the reciprocal relation of subject and object in Torrance's thought, believing it to involve the mutual counter-influence between the object and the subject. As McCall has demonstrated, the active involvement of the subject in Torrance's view was the subject's participation in the truth of the object.¹⁷⁴ As such, it does not compromise the prevenience of revelation in theological knowledge, as Thiemann's analysis suggests. In a similar fashion, Colyer has suggested that Thiemann's criticism can be answered with the notion of personal participation.¹⁷⁵ That is, Torrance did accept the active role of the subject, but he does not accept that this role is necessarily one that exercises coercive influence upon the object. Instead, Torrance developed an account of ultimate beliefs that are objectively determined such that our interaction with reality is shaped by reality from the very beginning in ways over which we have no control.¹⁷⁶

¹⁷² Thiemann, *Revelation*, 41-42.

¹⁷³ Ho, *Critical Study*, 26ff.

¹⁷⁴ McCall, 'Thiemann', 151.

¹⁷⁵ Colyer, 'A Scientific Theological Method', 228-229.

¹⁷⁶ See above, 150-152.

Moreover, Thiemann does not really engage with the degree of theological stylization that characterizes Torrance's account of the subject-object relation in theology. Torrance argued that the interaction between the subject and the object takes place in the context of the 'utter lordship of the Object', in which the subjective element is faith, 'the relation of our minds to the Object who through His unconditional claims upon us establishes the centre of our knowing in Himself and not in us, so that the whole epistemological relation is turned around – we know in that we are known by Him'.¹⁷⁷ Not only is the object Lord, the object is also personal, and therefore, knowledge of God is dialogical.¹⁷⁸ Torrance envisioned theological knowledge as a conversation of divine address to obedient human subjects, who form a community of persons between whom the knowledge of God is mediated and controlled.¹⁷⁹

Second, Thiemann has misunderstood Torrance's notion of intuition. Colyer has demonstrated that Thiemann has erred in failing to appreciate the connection between Torrance's notion of intuition and the Greek concept of *prolepsis*.¹⁸⁰ Ignoring this important context, Thiemann has not accounted for Torrance's highly stylized understanding of intuition.¹⁸¹ Intuition is not the apprehension of true propositions. Instead, intuition is the tacit apprehension of reality in its wholeness as it imposes its truth of being upon the observer. As David Ford has pointed out, intuition for Torrance does not challenge the priority of God in his self-revelation, for intuition responds to God who takes the initiative in his self-revelation.¹⁸²

¹⁷⁷ Torrance, *TS*, 132.

¹⁷⁸ Torrance, *TS*, 133.

¹⁷⁹ Torrance, *TS*, 133-135.

¹⁸⁰ Colyer, *How to Read*, 344n97.

¹⁸¹ McCall, 'Thiemann', 152.

¹⁸² D. Ford, 'Review of *Reality and Scientific Theology*', *Scottish Journal of Theology* 41.2 (1988), 273-280, 278.

Torrance's intuition is not the reception of propositions. For Torrance, intuition involves the objective determination of the subject under the pressure of the object, reforming the subject to be the bearer of objective knowledge. It is for this reason that Thiemann understands the need for propositional intuitions to be conceptualized through holding them in relation to some coordinate system to lead back onto the rocks of the rational schematization of critical philosophy. However, Thiemann does not discuss Torrance's concept of the objective determination of the framework of thought within which cognition takes place. For example, Habets has demonstrated that Torrance's hermeneutical procedure begins from a body of ultimate beliefs that are held in the tradition of the Church, such as the doctrine of the Trinity.¹⁸³ As discussed above, the coordinate system within which revelation is conceptualized is objectively determined by God.¹⁸⁴

Third, Thiemann's misunderstanding of intuition relates to his misunderstanding of the nature of truth in Torrance's thought. Stevick has demonstrated that Thiemann is mistaken in his understanding of the relation between personal and propositional truth. Thiemann argues that the 'direct experience of God of which Torrance speaks is not precognitive but rather signifies God's direct imposition of true propositions in the mind of the believer'.¹⁸⁵ Accordingly, Thiemann has understood Torrance's position to mean there 'can be no non-propositional revelation of God'.¹⁸⁶ Accordingly, Thiemann believes

¹⁸³ M. Habets, 'Theological Interpretation of Scripture in Sermonic Mode: The Case of T.F. Torrance', in *Ears that Hear: Explorations in Theological Interpretation of the Bible*, eds. J. Green and T. Meadowcroft, Sheffield: Sheffield Phoenix Press, 2013, 44-71, 51.

¹⁸⁴ See, Colyer, 'Scientific Theological Method', 228-229; *Nature of Doctrine*, 50n109; Stevick, 'Kata Physin', 40ff, 68. See above, 150-152.

¹⁸⁵ Thiemann, *Revelation*, 40. Stevick, 'Kata Physin', 64ff.

¹⁸⁶ Thiemann, *Revelation*, 40.

that, for Torrance, theology is always linguistic and the imposition of truth is the imposition of propositional knowledge.¹⁸⁷

Thiemann's position is unsustainable as it would require Torrance to have turned away from his early explicit rejection of the propositional understanding of revelation,¹⁸⁸ which there is no evidence to suggest that he did. Moreover, it requires Torrance to have betrayed the fundamental commitment that Jesus Christ in his person is the Truth of God, uniting in his person God's self-revelation and its apprehension in humanity.¹⁸⁹ In this connection, Stevick argues that the Thiemann has misunderstood Torrance's comment that '[Jesus] is the Truth communicating Himself in and through truths',¹⁹⁰ which Thiemann takes to mean that all revelation is propositional. Against this, Stevick has shown that Torrance did not think that an object imposes true propositions, but rather that an object imposes its truth of being in a more holistic, personal way.¹⁹¹ Accordingly, Stevick argues that Thiemann has misunderstood the relationship between personal and propositional revelation in Torrance's doctrine of Jesus Christ as the 'Truth of God'.¹⁹²

Importantly, Stevick argues that Thiemann's confusion of personal and propositional truth is tied to the accusation of foundationalism. On the basis of this confusion, Thiemann understands Torrance to build on a rational foundation of incorrigible propositions. This (as Torrance's incredulous comments indicate¹⁹³) is not what Torrance intended. Thiemann's charge of foundationalism is established on his mistaken equation of intuition and the cognitive appropriation of the revelation of true propositions. Against Thiemann, Stevick argues that Torrance's arrangement is more

¹⁸⁷ Thiemann, *Revelation*, 40.

¹⁸⁸ T.F. Torrance, *The Doctrine of the Person of Jesus Christ: The Auburn Lectures, 1938/39*, Eugene: Wipf and Stock, 2002, 134.

¹⁸⁹ Torrance, *Reconstruction*, 128-149.

¹⁹⁰ Torrance, *TS*, 147.

¹⁹¹ See Stevick, 'Kata Physin', 64-65.

¹⁹² Stevick, 'Kata Physin', 65-66. Torrance, *TS*, 147.

¹⁹³ Torrance, 'Thomas Torrance Responds', 331.

complex with the personal truth of the incarnate Word coming to us through the written words of Scripture.¹⁹⁴ This takes the current discussion back to the question of the objective determination of the conceptual framework within which God's revelation is understood. If revelation is not propositional, but rather personal, it is in personal encounter with the truth of God in the person of Jesus Christ that our categories and concepts can be reformed pre-conceptually. The schema within which we understand God's self-revelation does not therefore take the form of critical foundationalism. Instead, the framework of thought with which concepts are drawn is itself objectively derived.

Finally, there are problems with Thiemann's understanding of foundationalism. Even if we hypothetically accept Thiemann's association between revelation and proposition, it does not follow that Torrance established the conceptual framework within which these propositions are understood as revelation upon a foundationalist basis. McCall has argued that Thiemann limits foundationalism to classical foundationalism, in which the foundations of human thought must be self-evident and properly basic, assuming that all knowledge is either a basic foundation or a subsequent proposition built upon that foundation.¹⁹⁵ Thiemann does not, McCall suggests, begin to address the question of other types of foundationalism. McCall points out that those who hold to other species of foundationalism would also reject the form of foundationalism that Thiemann is concerned with. McCall offers the example of the non-evidentialism of Plantinga who argues that belief itself is a properly basic foundation, without the need to be established on incorrigible convictions.

In this connection, McCall suggests that Thiemann has not properly appreciated the epistemological significance of the Spirit in enabling humanity to be the recipients of

¹⁹⁴ Stevick, '*Kata Physis*', 66.

¹⁹⁵ McCall, 'Thiemann', 154.

revelation.¹⁹⁶ The implication of this is that revelation does not need to be conceptualized in accordance with a conceptual framework, for it is a miracle of God's prevenient grace. By this approach, McCall suggests that Thiemann's attempt to refute Torrance's approach by identifying it as classical foundationalism, based on incorrigible axioms misses the mark of what McCall calls Torrance's 'modest foundationalism' established not on basic propositions, but on belief in revelation engendered by the Spirit.¹⁹⁷

Although helpful, McCall's line of reasoning needs to be developed. To identify that the Spirit creates in humanity the capacity to believe in revelation such that belief becomes a satisfactory foundation for knowledge does not fully address the point Thiemann is making. Thiemann argues that the conceptual schema through which propositional revelation is cognized necessarily means that the human as subject is exercising counter-influence upon God as object, thereby compromising Torrance's insistence upon the unique priority of God in his self-revelation. The problem is not with the status of belief, but with Torrance's attempt to marry the critical insistence upon the subject's involvement in knowledge with the unique priority of revelation. The important factor here is that, for Torrance, the Holy Spirit enables the human to be the bearer of objectivity. Torrance argued that the epistemological relevance of the Spirit was to establish that the knowledge of God is a miracle of the grace of God, and that it is only by the Spirit humanity are made able to be the knowers of God. Torrance argued that by the Spirit, humans are 'confronted with the ultimate being and presence of God',¹⁹⁸ such that 'we think and speak directly of God in and through the forms of our rational experience and articulation and we do that under the direction and control of the inner rationality of

¹⁹⁶ McCall, 'Thiemann', 155.

¹⁹⁷ McCall, 'Thiemann', 164ff.

¹⁹⁸ Torrance, *GR*, 167.

the divine being'.¹⁹⁹ For Torrance, the Spirit is the very presence of the being of God, through which our subjectivity is reformed such that we are enabled to be the knowers of God. Moreover, Torrance's strong version of the vicarious humanity of Jesus is also significant, for it is in Jesus that humanity have received God's self-revelation, thus securing a perfect human knowledge of God, in which the interaction between subject and object does not imply the counter-influence of the subject on the latter, but the perfect cognitive obedience of humanity to the revelation of God in the person of Jesus.

¹⁹⁹ Torrance, *GR*, 170.

PART TWO:

NATURAL THEOLOGY

Chapter 4

The Rejection of Autonomous Natural Theology

Torrance unequivocally rejected autonomous natural theology (NT). Torrance had no place for attempting to derive knowledge of God from the resources of nature independent from God's self-revelation. However, Torrance's rejection of autonomous NT does not constitute a rejection of NT *per se*. Instead, Torrance rejected NT when used as a conceptual framework established apart from God's self-revelation. Importantly, Torrance's rejection of autonomous NT carries within itself the trajectory for Torrance's positive proposals for NT under the determination of God's self-revelation.

As a theologian working within the Reformed tradition, Torrance's work on NT can be situated in the context of Reformed theology. When viewed in this connection, Torrance's nuanced attitude to NT is found to hold a lot in common with some of his predecessors. However, Torrance did not simply recapitulate a particular Reformed perspective on NT. Instead, Torrance adopted a position which resembles the positions taken by Calvin and Bavinck and worked creatively within this position to express a version of NT as the rational intra-structure of theology. As Heron has demonstrated, Torrance was not a historian of Reformed thought, but rather worked from within the Reformed tradition to address contemporary concerns.¹ There is clear evidence of this principle at work in Torrance's rejection of autonomous NT.

¹ Heron, 'Torrance in Relation to Reformed Theology', 31-49.

In this connection, Torrance rejected autonomous NT on the grounds of (i) a Christocentric doctrine of revelation, (ii) theological anthropology, and (iii) epistemological concerns regarding the validity of pre-determined conceptual schemas. The epistemological concern is most relevant for the purposes of this inquiry, because through it Torrance equated autonomous NT and object-making modes of thought.

1.0. The Complexity of Natural Theology in the Reformed Tradition

NT has a complex history in the Reformed tradition. A full analysis of the different approaches to NT in the Reformed tradition is beyond the scope of this study.² However, in what follows several representative examples of different formulations of NT in the Reformed tradition are examined. This discussion sets the formal precedent that specific formulations of NT may be rejected without rejecting NT *per se*. Moreover, this discussion sets the material precedent that within Reformed theology there is a nuanced attitude to NT, both recognizing its validity but rejecting its deployment in autonomy from God's revelation through Jesus. Moreover, briefly stepping outside the Reformed tradition and into the broader Protestant tradition, Melancthon evinced a nuanced attitude of theistic argumentation within a prior rejection of any attempt to establish NT as an antecedent rational schema.

² See R.A. Muller, *Post-Reformation Reformed Dogmatics: The Rise and Development of Reformed Orthodoxy ca. 1520 – ca. 1725. Volume One: Prolegomena to Theology*. 2nd Edition, Grand Rapids: Baker Academic, 2003, 270-310; R.A. Muller, *Post-Reformation Reformed Dogmatics: The Rise and Development of Reformed Orthodoxy ca. 1520 – ca. 1725. Volume Three: The Divine Essence and the Attributes of God*. 2nd Edition, Grand Rapids: Baker Academic, 2003, 83-195; Sudduth, *Reformed Objection*, 9-40.

1.1. The Insufficiency of Natural Theology: John Calvin

Calvin held a nuanced position on NT, believing God to reveal his wisdom through nature,³ and to have placed in humanity the ‘sense of the divine’ (*Divinitatis sensum*) and the ‘seed of religion’ (*semen religionis*) by which humanity might recognize it,⁴ rendering humanity responsible for their response to God.⁵

[God] not only sowed in man’s minds that seed of religion [*semen religionis*] of which we have spoken but revealed himself and daily discloses himself in the whole workmanship of the universe [...]. But upon his individual works he has engraved unmistakable marks of his glory, so clear and prominent that even unlettered and stupid folk cannot plead the excuse of ignorance.⁶

And,

There is within the natural mind and indeed by natural instinct, an awareness of divinity [*Divinitatis sensum*]. This we take to be beyond controversy to prevent anyone from taking refuge in the pretence of ignorance, God himself has implanted in all men a certain understanding of his divine majesty.⁷

Alongside this awareness of divinity, Calvin stated that the divine wisdom is displayed in the orderliness of the created universe, and the structure of the human body.⁸ Accordingly, Calvin was able to appeal to the order of the world as evidence of the existence of God.⁹ Calvin prioritized empirical observation of the created order over

³ J. Calvin, *Commentary on the Book of Psalms: Volume One*, trans. J. Anderson, Edinburgh: Calvin Translation Society, 1845, 307-333; J. Calvin, *Commentary on Acts of the Apostles, 14-28*, ed. D.W. Torrance and T.F. Torrance, trans. J.W. Fraser, Edinburgh: Oliver and Boyd, 1966, 13-14.

⁴ Muller, *PRRD*, 273-274; Sudduth, *Reformed Objection*, 15-16; J.N. Thomas, ‘The Place of Natural Theology in the Thought of John Calvin’, *The Journal of Religious Thought* 15 (1958), 107-136, 111-112.

⁵ Muller, *PRRD*, 1.275; S. Grabill, *Rediscovering the Natural Law in Reformed Theological Ethics*, Grand Rapids: William B. Eerdmans, 2006, 71-72, 79-81; S.K. Moroney *The Noetic Effects of Sin: A Historical and Contemporary Exploration of how Sin Affects our Thinking*, Lanham: Lexington Books, 2000, 1-26; J. Beversluis, ‘Reforming the Reformed Objection to Natural Theology’, *Faith and Philosophy* 12.2 (1995), 189-200, 193-195; D.E. Tamburello, *Union with Christ: John Calvin and the Mysticism of St. Bernard*, Louisville: Westminster John Knox, 1994, 36-39; J.D.P. Platt, *Reformed Thought and Scholasticism: The Arguments for the Existence of God in Dutch Theology, 1575-1650*, Leiden: Brill, 1982, 4-5; McGrath, *Brunner*, 99-101; *Intellectual*, 176-179; D.C. Steinmetz, ‘Calvin and the Natural Knowledge of God’, in *Calvin in Context*, ed. D.C. Steinmetz, Oxford: Oxford University Press, 1995, 23-40, 28-31.

⁶ J. Calvin, *Institutes of the Christian Religion*, ed. J.T. McNeill, trans. F.L. Battles, Philadelphia: The Westminster Press, 1960, I.v.1.

⁷ Calvin, *Institutes*, I.iii.1.

⁸ Calvin, *Institutes*, I.v.2-3.

⁹ Calvin, *Institutes*, I.iii.1-3; I.v.1-2. See Sudduth, *Reformed Objection*, 16-17; Muller, *PRRD*, 3.172-174; Beversluis, ‘Reforming’, 196; Platt, *Reformed Scholasticism*, 34-43; Grabill, *Rediscovering the Natural Law*, 77-78. See the discussion of Calvin’s attribution of the delicate order and constancy of creation as evidence of God’s providential care, C. van der Kooi, *As in a Mirror: John Calvin and Karl*

philosophical argumentation,¹⁰ noting that philosophy has proved to obscure the actual knowledge of God through creation.¹¹

However, Calvin did not consider there to be salvific knowledge of God through reflection on the natural world:¹² by the sin of humanity ‘all degenerate from the true knowledge of him’,¹³ such that ‘men soon corrupt the seed of the knowledge of God, sown in their minds out of the wonderful workmanship of nature’.¹⁴ Sin is said to distort humanity’s capacity to apprehend this natural revelation, making NT, aside from revealed theology, insufficient. Instead, God is only known as Creator through the Scriptures which is a ‘better help [...] to direct us aright to the very Creator of the universe’.¹⁵ In this way, Calvin finally settles on a position in which Scriptural revelation is primary in the knowledge of God: ‘God, the Artificer of the universe, is made manifest to us in Scripture, and that what we ought to think of him is set forth there’.¹⁶ According to Muller, this constitutes an attenuated NT that is entirely dependent upon God’s actual revelation in Jesus.¹⁷

1.2. Theistic Argumentation Established on Revelation: Philip Melanchthon

In the broader Protestant tradition, Melanchthon gave a positive account of the function of natural reason in humanity’s knowledge of God in general, and the role of theistic argumentation in particular. Charting the transition in Melanchthon’s thought from his

Barth on Knowing God, A Diptych, Leiden: Brill, 2005, 134-135; and of the geometric regularity of the cosmos as evidence of God’s personal act, see C.B. Kaiser, ‘Calvin’s Understanding of Aristotelian Natural Philosophy: Its Extent and Possible Origin’, in *Calvinia: Ideas and Influence of Jean Calvin*, ed. R.V. Shnucker, Kirksville: Sixteenth Century Journal Publishers, 1988, 77-92.

¹⁰ Calvin, *Institutes*, I.v.9.

¹¹ Calvin, *Institutes*, I.v.12.

¹² Calvin, *Institutes*, I.v.14-15. Sudduth, ‘Prospects for “Mediate” Natural Theology’, 55-57.

¹³ Calvin, *Institutes*, I.iv.1.

¹⁴ Calvin, *Institutes*, I.v.15.

¹⁵ Calvin, *Institutes*, I.vi.1.

¹⁶ Calvin, *Institutes*, I.vi.1.

¹⁷ Muller, *PRRD*, 1.275-276.

early emphasis on the ‘corrupt state of fallen man and the consequent impotence of his natural powers in spiritual matters’,¹⁸ to his later attempts to argue for the existence of God, Platt argues that Melanchthon came to develop theistic arguments which were determined by Scriptural revelation.

Platt demonstrates that, from early in his career, Melanchthon stressed the effects of the fall on human reason, such that humanity is unable to rightly respond to natural revelation:¹⁹ ‘For although there are some vestiges of the deity impressed on the natural order, yet so great is the weakness of men’s minds that they are not affected enough by the signs’.²⁰ However, Platt argues that Melanchthon recognized some attenuated role of human reason in the knowledge of God, based on the sense of the divine within humanity and the providential ordering of the universe and history and the power of the human mind itself.²¹

[Paul in Romans 1.20] dwells on a description of the natural knowledge of God, from those signs and evidences from which God may be known, namely from his marvellous works in the whole natural order. For at the same time we see those sure changes and movements, the seasons, the remarkable powers of living things coming into being, the outstanding discernment of the human mind and its power of understanding, likewise also the social order, the preservation of governments amidst the great disturbances of human affairs, the punishment of wrongdoers, the pangs of conscience. These are all witnesses that God exists, that He is good, that he is righteous, that at some time He will sit in judgement.²²

However, this discussion is modified by a reiteration of the noetic effects of original sin, whereby ‘this natural knowledge of God is to some extent obscured’.²³

Turning to Melanchthon’s 1535 *Loci Communes*, Platt demonstrates that Melanchthon does not place theistic proofs as part of a formal prolegomena, but rather

¹⁸ Platt, *Reformed Scholasticism*, 10, citing Melanchthon, *Commentarii in Epistolam Pauli ad Romanos*, 1532, 72.

¹⁹ Platt, *Reformed Scholasticism*, 14, citing Melanchthon, *Romanos*, 69-70.

²⁰ Melanchthon, *Loci Communes*, cited from Platt, *Reformed Scholasticism*, 19.

²¹ Platt, *Reformed Scholasticism*, 17.

²² Melanchthon, *Romanos*, 72, cited from Platt, *Reformed Scholasticism*, 17.

²³ Melanchthon, *Romanos*, 74, cited from Platt, *Reformed Scholasticism*, 18.

within a discussion of the doctrine of creation. This shows Melanchthon's theistic proofs to be located within positive dogmatics, tied to special revelation.

After the mind has been confirmed in the true and right opinion of God and of creation by the Word of God itself, it is then both useful and pleasant to seek out also the vestiges of God in nature and to collect the arguments which testify that there is a God.²⁴

Significantly, Melanchthon's rational proofs concerning the existence of God were established within the parameters of special revelation: 'philosophy must be ruled by God's Word'.²⁵ Sudduth corroborates this arguing that, for Melanchthon, Scripture provides the material for a doctrine of God determined by special revelation, which undergirds the structure of theological argumentation.²⁶ On these terms, the purpose of Melanchthon's theistic proofs is not to construct a self-sufficient rational basis for belief in God upon which the body of dogmatics is established. Instead, these theistic proofs act 'as a means of rationally reflecting on the data of biblical revelation'.²⁷

However, in Melanchthon's 1555 *Loci Communes*, there is not the same emphasis on the priority of revelation in NT.

Men should often contemplate that God desires this beautiful work to be a testimony of Him. He created everything that he might reveal Himself [...]. If the beautiful order in this wondrous edifice which God made should be a testimony of Him, and truly is an open testimony, then rational people should behold and contemplate this order²⁸

However, Melanchthon retained the same division, keeping this discussion within the parameters of the doctrine of creation. As such, revelation still provides the rational basis from which subsequent inquiries into how the natural world might testify to God can take place. Quite the opposite use of reason is evidenced later within Reformed theology,

²⁴ Melanchthon, *Loci Communes*, col. 369, cited from Platt, *Reformed Scholasticism*, 20.

²⁵ Melanchthon, *Loci Communes*, col. 370, cited from Platt *Reformed Scholasticism*, 20.

²⁶ See also, M.L.C. Sudduth, 'Revisiting the "Reformed Objection" to Natural Theology', *European Journal for Philosophy of Religion* 2 (2009), 37-62, 60.

²⁷ Sudduth, 'Revisiting the "Reformed Objection"', 57-58; M.L.C. 'Reformed Epistemology and the Recontextualizing of Natural Theology' in *Contemporary Practice and Method in the Philosophy of Religion*, eds. D. Cheetham and R. King, London: Continuum, 2008, 160-173, 166-167; *Reformed Objection*, 12-13.

²⁸ P. Melanchthon, *Melanchthon on Christian Doctrine: Loci Communes, 1555*, trans. and ed., C.L. Manschreck, New York: Oxford University Press, 1965, 39-40.

where NT is used as a rational foundation upon which the knowledge of God in his self-revelation is established.

1.3. Rationalistic Natural Theology: Jean-Alphonse Turretin

In the period of late scholasticism, Reformed theologians began to exercise formulations of NT which were autonomous from revealed theology and advanced instead as a sufficient rational foundation for theological knowledge.²⁹ In this period, NT came to be used in a fashion independent from revelation as a preliminary rational framework.³⁰ Muller contends that this transition should be understood in coordination with the rise of various forms of rationalism.³¹

Rationalism is understood here as an attitude to knowledge brought to bear on the method of knowing in which reason is of primary importance in the generation of knowledge.³² Specifically, the term is used here in connection with the ‘rationalist’ philosophers of the seventeenth century such as Descartes, Spinoza and Leibniz.³³ While the traditionally drawn contrast to empiricism is unreliable, as attenuated experience remains part of most rationalist systems,³⁴ rationalism is a philosophical category which maintains that some things can be known through reason alone without justification by experience (they are *a priori*).³⁵ Huenemann has argued that the *a priori* truths of reason are established upon two things that are held in common across all types of rationalism.

²⁹ Spykman, *Reformational Theology*, 26-31.

³⁰ Muller, *PRRD*, 1.82-84, 174-176, 305-398; 3.121-129, 141-150, 193-195.

³¹ Muller, *PRRD*, 3.118-128.

³² A. Nelson, ‘The Rationalistic Impulse’ *A Companion to Rationalism*, ed. A. Nelson, Blackwell Publishing, 2005. [Blackwell Reference Online](http://www.blackwellreference.com/subscriber/tocnode.html?id=g9781405109093_chunk_g97814051090935).
<http://www.blackwellreference.com/subscriber/tocnode.html?id=g9781405109093_chunk_g97814051090935>, Accessed, 10th January 2017.

³³ M. Ayres, ‘Introduction’, in *Rationalism, Platonism and God: A Symposium on Early Modern Philosophy*, ed. M. Ayres, Oxford: Oxford University Press, 2007, 1-14, 1.

³⁴ Nelson, ‘The Rationalist Impulse’; Huenemann, *Understanding Rationalism*, 1; Ayres, ‘Introduction’, 2-3.

³⁵ C. Huenemann, *Understanding Rationalism*, Stocksfield: Acumen, 2008, 4-5; Ayres, ‘Introduction’, 1.

First, there are the innate ideas, which are concepts which our minds possess by virtue of our minds being minds. This does not mean these ideas are obvious or that we are conscious of them necessarily. Instead, it means that there are ideas innate to all human minds which need to be exposed through logical demonstration.³⁶ Second, the human mind possesses the faculty of deducing valid conclusions from premises.³⁷ What is in view is a form of deductive reasoning from *a priori* axioms where knowledge is said to be attained and justified from the potentiality of the human mind itself.

Muller argues that in the seventeenth century and eighteenth century, rationalism influenced how theologians approached NT. In this context, Muller notes that NT was taken from the position within positive dogmatics and placed instead as an *a priori* substructure. For example, Muller stresses the influence of Wolffian rationalism on the NT of Daniel Wytttenbach,³⁸ the ‘Wolffian scholastic’ whose ‘theology takes its philosophical grounding from Wolffian rationalism’,³⁹ with the effect that NT is established as the preliminary foundation and the ‘necessary prolegomenon’⁴⁰ for revealed theology.⁴¹

Similarly, Sudduth argues that the mutation of NT into a self-sufficient rational system is in connection with the influence of Descartes and subsequent Cartesianism on Reformed theology in the seventeenth century.⁴² For example, Sudduth points to Salomon

³⁶ Huenemann, *Understanding Rationalism*, 4-5.

³⁷ Huenemann, *Understanding Rationalism*, 5-6.

³⁸ Muller, *PRRD*, 1.303-308. See also, T.L. Smith, *Natural Theology: The Dialectic of Natural Theology: Emil Brunner and Karl Barth on Nature and Grace*, Saarbrücken: VDM Verlag Dr Müller, 2010, 59-68.

³⁹ Muller, *PRRD*, 3.142.

⁴⁰ Muller, *PRRD*, 1.306.

⁴¹ Muller, *PRRD*, 3.142; 1.306. Sudduth, *Reformed Objection*, 32.

⁴² Sudduth, *Reformed Objection*, 141-143, 149-155. See also H. Bouillard, ‘A Dialogue with Karl Barth: The Problem with Natural Theology’, trans. G. Farley, N. Fiorenza and J.E.A. Woodbury, *Cross Currents* 19.2 (1968), 203-228, 210. For a discussion of the connection between Descartes’ theological foundation for the laws of nature and his *a priori* methodology, see M.J. Osler, ‘Eternal Truths and the Laws of Nature: The Theological Foundations of Descartes’ Philosophy of Nature’, *Journal of the History of Ideas* 46.3 (1985), 349-362, 351. For a critical analysis of Descartes’ application of deductive proof in

van Til, who claimed that it is reason and not Scripture that is to serve as the ultimate basis of Christian theology. In this connection, Sudduth notes that in van Til's approach, NT 'acquired the status of a prolegomenon to revealed theology'.⁴³ According to Sudduth, this period witnessed the beginnings of a breed of NT, operating as an 'autonomous system of rational theology that was intended as a pre-dogmatic foundation for the Christian faith'.⁴⁴ As a 'pre-dogmatic foundation' and 'prolegomena', NT was an independent body of convictions regarding the existence and attributes of God derived from reason which orientated the investigation into God's special revelation. In other words, NT became the rational foundation upon which the positive knowledge of God derived from his revelation was built as superstructure.

Focussing his study on the Academy of Geneva, Klauber has argued that one of the major facets of the gradual development within Reformed theology from Reformed orthodoxy to the Enlightenment in the late seventeenth and early eighteenth centuries was the 'eventual triumph of reason over revelation'.⁴⁵ A major feature of this prioritising of reason was the expansion of the use and role of NT.⁴⁶ In this period, theologians sought to

the attempt to develop the knowledge of God purely via *a priori* reasoning, see M. Webb, 'Natural Theology and the Concept of Perfection in Descartes, Spinoza and Leibniz', *Religious Studies* 25 (1989), 459-475. For a very different reading of Descartes' relation to theology, suggesting that Descartes sought to cast a distinction between his philosophical system and theology, so to preserve the priority of grace and faith in theology, see G. Hatfield, 'Reason, Nature and God in Descartes', in *Essays on the Philosophy and Science of René Descartes*, ed. S. Voss, Oxford: New York: Oxford University Press, 1993, 265-278.

⁴³ Sudduth, *Reformed Objection*, 31; Muller, *PRRD*, 1.302, 306.

⁴⁴ Sudduth, 'Objection', 55; 'Reformed Epistemology', 167-168.

⁴⁵ M.I. Klauber, 'Jean-Alphonse Turretin (1671-1737) on Natural Theology: The Triumph of Reason Over Revelation at the Academy of Geneva', *Scottish Journal of Theology* 47.3 (1994), 301-325, 301. For a discussion of this transition, see T.R. Phillips, 'The Dissolution of Francis Turretin's Vision of Theologia: Geneva at the End of the Seventeenth-Century', in *The Identity of Geneva: The Christian Commonwealth 1564-1864*, eds. J.B. Roney and M.I. Klauber, Westport: Greenwood Press, 1998, 77-92, 77-79. See also, M. Heyd, *Between Orthodoxy and the Enlightenment: Jean-Robert Chouet and the Introduction of Cartesian Science at the Academy of Geneva*, The Hague: Martinus Nijhof, 1982, 236-244.

⁴⁶ M.I. Klauber, 'The Eclipse of Reformed Scholasticism in Eighteenth Century Geneva: Natural Theology from Jean-Alphonse Turretin to Jacob Vernet', in *The Identity of Geneva: The Christian Commonwealth 1564-1864*, eds., J.B. Roney and M.I. Klauber, Westport: Greenwood Press, 1998, 129-142, 129.

apply the tools of the Age of Reason to defend Christian theology from the challenge of deism and atheism.⁴⁷

Jean-Alphonse Turretin is described as one who took a ‘rationalistic approach to natural theology’,⁴⁸ in which ‘reason served as the independent arbiter’ over religious truth.⁴⁹ Turretin’s introductory comments on NT certainly give this impression.

As God manifests himself to men in two ways, by the light of nature, which is common to all men, and by immediate inspiration, Theology is divided into two branches, natural and revealed. As these two kinds of Theology derive their origin equally from God, they are not inconsistent or of opposite natures, but perfectly agree and mutually strengthen each other. *For natural religion is the foundation of revealed, which cannot be known and explained but by the principles drawn from it* – On the other hand, natural Theology is republished, perfected and illustrated by revealed.⁵⁰

NT takes a dramatic new role as the foundation of revealed theology, upon which revealed theology is dependent. Moreover, although Turretin identified NT as having a ‘foundation’, this foundation was not revelation (as in Melancthon) or even the sense of the divine within humanity (as was found in attenuated form in Calvin).

That there is a foundation for natural Theology, or which is the same thing, that much may be known of God, by the light of Nature unassisted by revelation, will appear evident from considering the several particulars under which I mean to treat this subject. For the existence and perfections of God, the Duties we owe him and other things connected with and derived from them, are plainly deduced and demonstrated from reason.⁵¹

Not only has NT been set as the foundation of revealed theology, whereupon revealed theology may only be known through the principles and findings of NT, but NT itself is

⁴⁷ M.I. Klauber, *Between Reformed Scholasticism and Pan-Protestantism: Jean Alphonse Turretin (1671-1737) and the Enlightened Orthodoxy at the Academy of Geneva*, Selinsgrove: Susquehanna University Press, 1994; ‘The Triumph of Reason’, 301.

⁴⁸ Klauber, ‘The Triumph of Reason’, 301. For a full discussion, see Kluaber, *Between Reformed Scholasticism*, 62-103, (esp. 69-72). Klauber has demonstrated the influence of Louis Trouchin (1629-1705) on Turretin, particularly with regard to the prioritising of reason. See M.I. Klauber, ‘Reason, Revelation and Cartesianism: Louis Tronchin and Enlightened Orthodoxy in Late Seventeenth-Century Geneva’ *Church History* 59 (1990), 326-339.

⁴⁹ Klauber, *Between Reformed Scholasticism*, 70; ‘Eclipse of Reformed Scholasticism’, 130.

⁵⁰ J.A. Turretin, *Dissertations on Natural Theology by Jean Alphonso Turretine, Pastor in Geneva and Professor of Church History in the College of that City. Translated into English by William Crawford*, Eighteenth Century Collections Online. Gale. University of Oxford. Accessed 31st Jan. 2017. <http://find.galegroup.com/ecco/infomark.do?&source=gale&prodId=ECCO&userGroupName=oxford&tabID=T001&docId=CW3318701608&type=multipage&contentSet=ECCOArticles&version=1.0&docLevel=F> ASCIMILE, 1. Italics my own.

⁵¹ Turretin, *Natural Theology*, 2.

established upon the foundation of reason. Turretin recognized the noetic effects of sin, but refused to press this as far as the obliteration of the capacity of human reason to know something of God.⁵² Importantly, Turretin justified this by saying that if humanity were made unable to know divine things, ‘we could neither be convinced by the authenticity of revelation, understand the meaning of it, or reason at all about divine matters’.⁵³ In other words, Turretin established the verification of revelation and the understanding of it upon the capacity of human reason to comprehend God from its own resources.

Is not Natural Theology the very basis and foundation of revealed? Nor without the former can the latter be at all supported [...]; but revelation being contained in particular books, must be confirmed by the test of truth, before we can receive it, and it cannot be proved by any principles except such as are derived from the light of nature. For how can I be certain, that what God has revealed is credible, unless I have first learned from the light of nature that he is a being of veracity, and therefore cannot possibly deceive me? How can I be sure that this or that revelation derives its origin from the Deity, unless the light of nature has first taught me to know, what is worthy and what is unworthy of God, and consequently what are the proper characters of a divine revelation?⁵⁴

The deductions of reason based on principles drawn from the natural world (or innate to the human mind) are established as the arbiters over revealed theology. NT is cast as the foundation of revealed theology, with the result that revealed theology must cohere with NT. Moreover, if anything from revealed theology contradicts the findings of NT, it is the doctrines of revealed theology that must give ground.⁵⁵ In the light of this, Beardslee’s comment seems an accurate appraisal of Turretin’s approach: ‘[it is] “reason”, not the Holy Spirit, man, not God [who] certifies the truth claims of revelation’.⁵⁶ For Turretin, reason as the foundation of NT has become the validating schema in coordination with which revelation was assessed.

⁵² Turretin, *Natural Theology*, 5-6.

⁵³ Turretin, *Natural Theology*, 7.

⁵⁴ Turretin, *Natural Theology*, 12.

⁵⁵ Turretin, *Natural Theology*, 13.

⁵⁶ J.W. Beardslee, ‘Theological Developments at Geneva under Francis and Jean-Alphonse Turretini’, PhD, Yale University, 1956, 164. Cited from Klauber, ‘Triumph of Reason’, 304.

This self-assured approach is confident in the age in which ‘all the sciences [...] have been carried to the highest degree of perfection, and therefore we have now more abundant proofs of the wisdom of God’ in creation’.⁵⁷ However, according to Klauber, the advances in the natural sciences were not only a source of confidence for Turretin. Klauber argues that Turretin took such an approach in response to the challenge of deism connected to the growing understanding of the mechanics of the universe, noting that Turretin was cognisant of the struggles of English contemporaries. The extent of Turretin’s anxieties regarding atheism and deism are well documented in several correspondences,⁵⁸ and are factors in his own NT.⁵⁹ Against the threats of deism and atheism, Turretin developed a system of NT which ‘he considered a form of knowledge about God independent from Scripture’, through employing reason as its *modus operandi*.⁶⁰ The intention of this system was to establish knowledge of the existence and attributes of God aside from revelation thus providing a rational basis for belief in God upon which the knowledge of God through his revelation could be built.

1.4. The Challenge to Rationalistic Natural Theology: Herman Bavinck

Reflecting the complexity of the status of NT in the Reformed tradition, Reformed theologians of the late nineteenth and twentieth centuries have retained reservations about the legitimacy of NT, or, at the very least, some formulations of NT. Bavinck was an important critic of the transition undergone by NT into a rationalistic system. Commenting on compatriot Saloman van Til, Bavinck notes that NT was treated as a ‘preamble of faith’ in which ‘revelation and reason became independent entities standing

⁵⁷ Turretin, *Natural Theology*, 17.

⁵⁸ Klauber, *Between Reformed Scholasticism*, 63-65; ‘The Triumph of Reason’, 305-308; Wallace, *Shapers of English Calvinism*, 180-187.

⁵⁹ Klauber argues that Turretin’s proofs of the attributes of God stress God’s active participation in nature. Klauber, *Between Reformed Scholasticism*, 81, 87-95

⁶⁰ Klauber, *Between Reformed Scholasticism*, 70; ‘The Triumph of Reason’, 313.

side by side'.⁶¹ According to Bavinck, this separation of NT and revealed theology as two discrete sources of knowledge with the former serving as the foundation for the latter constituted a reversal of the thought of the Reformers, whom he understood as having challenged and overcome human autonomy in theology.⁶² Accordingly, Bavinck himself accepted that there is some general revelation in creation,⁶³ but asserted that this general revelation gives knowledge of God that is inadequate for salvation,⁶⁴ with priority on Scriptural revelation. With Bavinck, there is a return to something like Calvin's approach to NT, but notable for its focussed repudiation of the rationalistic NT.

1.5. The Objection to Natural Theology as Foundationalism: Alvin Plantinga

In the twentieth century, Alvin Plantinga has argued that NT is incompatible with Reformed theology, because the attempt to prove the existence of God is irreconcilable with Reformed theology.⁶⁵ At the heart of Plantinga's position is a conviction that Reformed epistemology contains an implicit rejection of classical foundationalism. In Plantinga's view, NT is a discursive system based on incorrigible axioms. This is incompatible, Plantinga contends, with Reformed theology which is not established upon incorrigible axioms, but rather the non-evidential approach established upon 'proper basicity'⁶⁶ of innate belief in God,⁶⁷ the *senus divinitatis*, engendered in humanity by

⁶¹ H. Bavinck, *Reformed Dogmatics: Volume One: Prolegomena*, ed. J. Bolt, trans. J. Vriend. Grand Rapids: Baker Academic, 2003, 105.

⁶² Bavinck, *Prolegomena*, 105, 303-305.

⁶³ Bavinck, *Prolegomena*, 310-311.

⁶⁴ Bavinck, *Prolegomena*, 312-314.

⁶⁵ A. Plantinga, 'The Reformed Objection to Natural Theology' in *Proceedings of the American Catholic Philosophical Association* 54 (1980), 49-63; Plantinga, 'Reason and Belief in God', 63. See also, N. Wolterstorff, 'Can Belief in God be Rational if it has no Foundations', in *Faith and Rationality: Reason and Belief in God*, eds. A. Plantinga and N. Wolterstorff, Notre Dame: University of Notre Dame Press 1983, 135-186, 166-169, 175-178.

⁶⁶ Plantinga, 'Reason and Belief in God', 55.

⁶⁷ Plantinga, 'Reason and Belief', 64-65.

the act of God.⁶⁸ Plantinga's position is established on his wider concerns to establish the credibility and 'proper basicity' of belief in philosophy.⁶⁹

Plantinga's position has been challenged for its interpretation of Calvin on the *sensus divinitatis*,⁷⁰ and also on the grounds of the legitimacy of the proposal for basic beliefs.⁷¹ Others have questioned Plantinga's limitation of NT to theistic argumentation.⁷² In my view, the problem with Plantinga's proposal is that he has demonstrated that Reformed theology is incompatible with classical foundationalism, but not that it is inconsistent with NT. NT does not necessarily operate by logical deduction from *a priori* axioms.⁷³ Plantinga has conflated theistic argumentation within the confines of dogmatic theology with the formal proofs of analytic philosophical systems.⁷⁴ There is certainly some basis to suggest that NT has at points in Reformed theology operated in a way that parallels the attitude and method of rationalism, but NT in the Reformed tradition cannot be reduced to this.

1.6. The Objection to Autonomous Natural Theology: Michael Sudduth

Michael Sudduth has contended that NT is compatible with the proper basicity of belief,⁷⁵ and that such a NT is fully compatible with Reformed thought. Like Plantinga, Sudduth's position is established on a non-evidentialist foundation for Reformed epistemology. Unlike Plantinga, Sudduth holds that NT is the tool of rational exploration

⁶⁸ Plantinga, 'Reason and Belief', 65, 72. See also, W.P. Alston, 'Christian Experience and Christian Belief', *Faith and Rationality: Reason and Belief in God*, eds. A. Plantinga & N. Wolterstorff, Notre Dame: University of Notre Dame Press, 1983, 103-134', 103-134; Sudduth, 'Reformed Epistemology and the Recontextualizing of Natural Theology', 163.

⁶⁹ A. Plantinga, 'Advice to Christian Philosophers', *Faith and Philosophy* 1.3 (1984), 253-271, 253-271. N. Wolterstorff, 'The Reformed Tradition' in *A Companion to Philosophy of Religion*, eds. P. Quinn and C. Taliaferro, Chichester: Wiley-Blackwell, 1999, 165-170, 166.

⁷⁰ Beversluis, 'Reforming', 191-193.

⁷¹ R. Swinburne, 'Review of *Warranted Christian Belief*' by Alvin Plantinga, *Religious Studies* 37 (2001), 203-214, 203-214.

⁷² Sudduth, *The Reformed Objection*, 43-48; Manning, 'Protestant Perspectives', 205-206, 209.

⁷³ Manning, 'Protestant Perspectives', 209; Sudduth, *Objection*, 47.

⁷⁴ Sudduth, *Objection*, 49. See also, Muller, *PRRD*, 3.153-159.

⁷⁵ Sudduth, 'Prospects for "Mediate" Natural Theology', 57-63; 'Reformed Objection', 45-46.

of the doctrine of God revealed in Scripture.⁷⁶ According to Sudduth (in parallel to Melanchthon) theistic argumentation is consistent with Reformed theology if undertaken within the context of belief and taking its basic parameters from God's revelation.⁷⁷

Sudduth's analysis suggests that within the Reformed tradition there is no objection to NT *per se*. Rather, Sudduth argues that theologians of the Reformed tradition have tended to reject formulations of NT which did not recognize the priority of God's grace in the knowledge of God,⁷⁸ and which undermined the necessity of God's self-revelation by identifying autonomous natural theology as the sufficient basis for knowledge of God.⁷⁹

Sudduth has advanced his own proposal for a dogmatic model of NT, in which NT may be properly practiced within a positive dogmatic theology. In this scenario, NT is 'part of the discourse of dogmatic theology not a preface to it', as they are under the determination of God's revelation.⁸⁰ Essentially, Sudduth considers NT to be the 'rational exploration of the doctrine of God revealed in Scripture'.⁸¹ This dogmatic conception of NT does not attempt to establish the rational ground for belief in God, but rather recognizes the free operation of human reason under the determination of Scriptural revelation. For Sudduth, this takes place through Scripture providing a clear doctrine of God, which provides humanity with a rational framework, through which rational inquiry into what God is like from the resources of creation can take place.⁸² In my view, this

⁷⁶ Sudduth, 'Reformed Epistemology and the Recontextualizing of Natural Theology', 166-172; *Reformed Objection*, 43, 51-54; 'Reformed Objection', 57-61. See also, Manning, 'Protestant Perspectives', 209-210.

⁷⁷ Sudduth, *Objection*, 53.

⁷⁸ Sudduth, *Objection*, 43.

⁷⁹ Sudduth, *Reformed Objection*, 44.

⁸⁰ Sudduth, 'Reformed Objection', 57, 172-174.

⁸¹ Sudduth, 'Reformed Epistemology and the Recontextualizing of Natural Theology', 172.

⁸² Sudduth, 'Reformed Objection', 60.

dogmatic approach to NT forms an important contemporary parallel to Torrance's proposal.

With the complex picture of NT in the Reformed tradition in mind, discussion turns to Barth, perhaps the crucial influence on Torrance's own attitude to NT.

2.0. Karl Barth's Rejection of Natural Theology

Karl Barth rejected NT, identifying it as the assertion of human autonomy and self-sufficiency in opposition to the grace of God.⁸³ The roots of Barth's position are found in his dialectic between religion and grace in the commentary on the Romans.⁸⁴ This developed into a particular concern with NT in the 1920s,⁸⁵ growing finally into a direct resistance to NT commensurate with the ideological hegemony of the National Socialist Party in the late 1920s and 1930s.

2.1. Natural Theology as Opposition to Grace

The core of Barth's objection to NT was that NT is the expression of human autonomy, attaining to knowledge of God on humanity's terms, disregarding the exclusivity of God's self-revelation in Jesus Christ, thereby opposing the grace of God.⁸⁶

⁸³ Grabill, *Rediscovering the Natural Law*, 29-30.

⁸⁴ K. Barth, *The Epistle to the Romans*. Sixth Edition, trans. E.C. Hoskyns, London: Oxford University Press, 1968, 229-270. Torrance, *KBIET*, 50-53, 68-71; von Balthasar, *The Theology of Karl Barth*, 69-71; McGrath, *Brunner*, 101-103; McCormack, *Critically Realistic*, 282-286; 167.

⁸⁵ See Webster's discussion of Barth's (1920s) treatment of Reformed confessions, emphasising that distinctive to Reformed theology is the 'shock of revelation' in connection to the rejection of NT. J.W. Webster, *Barth's Earlier Theology*, London: T&T Clark, 2005, 41-65.

⁸⁶ Barth, *CD*, II/1, 127-128; K. Barth, *The Knowledge of God and the Service of God According to the Teaching of the Reformation: Recalling the Scottish Confession of 1560*, trans. J.L.M. Haire and I. Henderson, London: Hodder and Stoughton Press, 1938, 5, 8-10.

2.1.1. The Gifford Lectures (1937-1938): The Incompatibility of Natural Theology and Reformed Theology

In the first of his 1937-1938 Gifford Lectures (“Natural Theology” and the Reformed tradition’), Barth argued that, as a Reformed theologian, he could not endorse Lord Gifford’s requirements to promote NT as the science of God, independent from the particulars of Christian revelation. Barth’s contention was that it is fundamental to Reformed thought that human salvation and the knowledge of God are established on God’s gracious self-revelation in Jesus,⁸⁷ which renders Reformed theology inherently incompatible with NT.

These lectures should have as their subject “Natural Theology” “in the widest sense of the term”; by this is clearly meant the highest perfection of what in the history of the Christian church has generally been understood by “Natural Theology” – a science of God, of relations in which the world stands to Him and of the human ethics and morality ensuing from the knowledge of Him. This science is to be construed independently of all historical religions and religious bodies as a strict natural science like chemistry and astronomy “without reference to or reliance upon any supposed special exceptional or so-called miraculous revelation. According to the presuppositions of “Natural Theology” as Lord Gifford understood the term - and he was perfectly correct in understanding it in this way - there does exist a knowledge of God and His connection with the world and men, apart from any special and supernatural revelation.”⁸⁸

Barth considered NT to be inherently tied to human autonomy. However, while he accepted the existence of such a division of theology, he noted ‘I am convinced that so far as it has existed and still exists, it owes its existence to a radical error’.⁸⁹ Significantly, Barth did not attribute his hostility to NT to personal opinion, but rather, ‘as a Reformed theologian I am subject to an ordinance which would keep me away from “Natural Theology”’.⁹⁰ The ‘ordinance’ Barth referred to is the priority of the grace of God in all theological thinking.

⁸⁷ Kooi, *As in a Mirror*, 274f; Smith, *Natural Theology*, 24-25.

⁸⁸ Barth, *Knowledge of God*, 3-4.

⁸⁹ Barth, *Knowledge of God*, 5.

⁹⁰ Barth, *Knowledge of God*, 5.

both the church and human salvation [are] founded on the Word of God *alone*, on God's *revelation in Jesus Christ*, as it is attested in the Scripture, and on faith in that Word. This is the reason why their teaching [...] is the clear antithesis to that form of teaching which declares that man himself possesses the capacity and the power to inform himself about God, the world and man.⁹¹

Barth was unequivocal in his view that the Reformed emphasis on the priority of grace is irreconcilable with NT.⁹²

2.1.2. The Readiness of God and the Readiness of Humanity

From Barth's own perspective within the Reformed tradition, the 'knowability' of God is inconceivable aside from the fact that God has made himself known. For Barth, the human knowledge of God is a miracle of the grace of God, upon which humanity is utterly dependent.⁹³ God is known by humanity, and this is established on nothing else than the fact that God has made himself known.⁹⁴ In other words, the knowability of God is considered only from the position of actuality.

To ask about the "knowability" of God is to ask about the possibility on the basis of which God is known. It is to look back from the knowledge of God and ask about the presuppositions and conditions on the basis of which it comes about that God is known. Only in this way, only with this backward look, is it possible to ask about the knowability of God in the Church's doctrine of God.⁹⁵

As a function of this *a posteriori* commitment, the presupposition guiding Barth's approach to NT is that 'the knowability of God is to be equated with His grace and mercy in the revelation of His Word and Spirit'.⁹⁶ The possibility of the knowledge of God is established only on God's readiness to give himself to be known: 'we must begin with the fact that there is a readiness of God to be known as He actually is known in the fulfilment

⁹¹ Barth, *Knowledge of God*, 8-9.

⁹² Grabill, *Rediscovering the Natural Law*, 24; Habets, *Transposition*, 75; Bouillard, 'A Dialogue with Barth', 208-209.

⁹³ Barth, *CD*, II/1, 129, 216-219. P. Molnar, *Faith, Freedom and the Spirit: The Economic Trinity in Barth, Torrance and Contemporary Theology*, Downers Grove: IVP Academic, 2015, 96-100.

⁹⁴ Barth, *CD*, II/1, 63. E. Busch, *The Great Passion: An Introduction to Karl Barth's Theology*, trans. G. Bromiley, Grand Rapids: Eerdmans, 2004, 61-67.

⁹⁵ G.M. Bromiley, *Introduction to the Theology of Karl Barth*, Edinburgh: T&T Clark, 1979, 57, 60-61.

⁹⁶ Barth, *CD*, II/1, 98-99.

in which the knowledge of God is fact'.⁹⁷ Barth's point is that the knowledge of God is not a possibility within the freedom of humanity but rather is an event of divine grace, and for this reason Barth insisted that all speculative inquiry into the grounds of the possibility of the knowledge of God are subsequent to the actuality of the knowledge of God.⁹⁸

Correspondingly, the readiness of humanity to be the knower of God is established only upon the prior foundation of the readiness of God in his self-revelation.⁹⁹

in this readiness of God [...], the readiness of man is enclosed. With and in the fact that God is ready within Himself to be known by man, man is also ready to know Him. There is no presumption in affirming this. It would be rebellion to deny it. Man's readiness to know God is encompassed and established, delimited and determined by the readiness of God; it is not independent but mediated; subsequent to the readiness of God¹⁰⁰

Barth's point is not that the priority of grace obviates the place of humanity in the knowledge of God. Instead, Barth held that humanity becomes the knower of God only as the recipient of God's grace. It is God's action to make contact with humanity and establish humanity as the knower of God that matters, not a capacity within humanity to be contactable, or an inherent capacity in humanity to know God.

Why then has NT persisted in the Christian Church? Barth argues that the persistence of NT is tied to the desire of humanity for autonomy.¹⁰¹

In its own way all natural theology circles about the problem of the readiness of man to know God. It does so in its own way, i.e., by elevating the readiness of man into an independent factor, so that the readiness of God is not understood as the only one which comes under consideration, nor is the readiness of man regarded as included within it, and completely dependent upon it.¹⁰²

⁹⁷ Barth, *CD*, II/1, 65.

⁹⁸ Barth, *CD*, II/1, 125. See McCormack, *Critically Realistic*, 241-288; Busch, *The Great Passion*, 67-72.

⁹⁹ Barth, *CD*, II/1, 128.

¹⁰⁰ Barth, *CD*, II/1, 128.

¹⁰¹ Bromiley, *Karl Barth*, 63.

¹⁰² Barth, *CD*, II/1, 128-129.

Barth explained the ‘vitality’ of NT by connecting it to the ‘vitality of man as such’.¹⁰³ NT has flourished because it is the self-expression (or the ‘herald’¹⁰⁴) of humanity in hostility to the grace of God.¹⁰⁵ For this reason, Barth understood NT to be the assertion of human autonomy.¹⁰⁶ As part of this broader attitude to NT, the position Barth took in his famous dispute with Brunner is more comprehensible.

2.2. The Barth-Brunner Dispute (1934)

The ferocity with which Barth rejected NT in the late 1920s and early 1930s, during which time he was teaching in Bonn University, must be understood in connection to the ideological hegemony the National Socialist Party exerted over the German Church and universities.¹⁰⁷ It is in this context that Barth’s comments during a lecture delivered in Copenhagen in 1933 should be understood.

The inevitable controversy about natural theology is a controversy about right obedience in theology [...]. It must abandon each and every natural theology and dare, in that narrow isolation, to cling alone to God who has revealed himself in Jesus Christ.¹⁰⁸

The only datum for the knowledge of God, Barth insisted, is God’s self-revelation in Jesus, with the very strong implication that all attempts to establish the knowledge of God

¹⁰³ Barth, *CD*, II/1, 165. Smith, *Natural Theology*, 24f, 158-159.

¹⁰⁴ Barth, *CD*, II/1, 162-163.

¹⁰⁵ Barth, *CD*, II/1, 127, 163. See Moore, ‘Should Christians do Natural Theology?’, 130-131.

¹⁰⁶ McGrath, *Intellectual*, 181.

¹⁰⁷ Torrance, *KBIET*, 137-138. See Kooi, *As in a Mirror*, 255; McGrath, *Brunner*, 105-113; J. Hart, *Karl Barth Vs. Emil Brunner: The Formation and Dissolution of a Theological Alliance, 1916-1936*, New York: Peter Lang, 2001, 143-149; K.L. Johnson, *Karl Barth and the Analogia Entis*, Farnham: Ashgate, 2010, 152; McCormack, *Critically Realistic*, 416-419; Barr, *Natural Theology*, 10-11, 111-116.

¹⁰⁸ K. Barth, ‘Das Erste Gebot als theologisches Axiom’, *Zwischen den Zeiten* 13 (1933), 127-143, 142. Cited from McGrath, *Brunner*, 109-110. See also, A. Moore, ‘Theological Critiques of Natural Theology’, in *The Oxford Handbook of Natural Theology*, eds. J.H. Brooke and R.E. Manning and F. Watts, Oxford: Oxford University Press, 2013, 227-242, 233. Moore has demonstrated that Barth’s position is a re-assertion of the task of theology to be determined in thought by God’s self-revelation over and above making contact with secular culture. See also, R.S. Anderson, ‘Barth and a New Direction for Natural Theology’, in *Theology Beyond Christendom: Essays on the Centenary of the Birth of Karl Barth May 10, 1886*, ed. J. Thompson, Eugene: Wipf and Stock, 1986, 241-266, 241-242; Hart, *Karl Barth Vs. Emil Brunner*, 144; Torrance, *TCKF*, 287ff; Smith, *Natural Theology*, 181. This is a contextual feature which is complicated further by Brunner’s desire to make contact and ‘debate’ (eristic) with secular society with the perspective that humanity retain the formal capacity to be addressed by God. E. Brunner, *The Christian Doctrine of God: Dogmatics, Volume One*, trans. O. Wyon, London: Lutterworth Press, 1949, 133-135. Hart, *Karl Barth Vs. Emil Brunner*, 103-108, 212-213.

assimilated to the Germanism of the Nationalist Socialist Party must be resisted. This context should be remembered in any assessment of Barth's response to Brunner's call for a new, theologically acceptable NT.¹⁰⁹

2.2.1. 'Nature and Grace'

Brunner's 1934 essay 'Nature and Grace' was a response to Barth's Copenhagen lecture of 1933. Brunner proposed that a 'proper' NT be re-instated upon the principle that humanity retains the capability of being addressed by God,¹¹⁰ and that the elucidation of this theme was one of the major tasks of theology in the early twentieth century.

Located in Zurich, Brunner was sheltered to some extent from the febrile atmosphere of Nazi Germany, and showed no awareness of how the impact of the political events in Germany may have shaped the urgency and zeal of Barth's resistance to NT.¹¹¹ However, Brunner still recognized that NT was capable of being deployed as a rational prolegomena to dogmatic theology.¹¹² Brunner laid the blame of this at the door of the Enlightenment prioritising of reason, and he saw the ensuing NT as a variant of NT, and not what NT is essentially.¹¹³ Brunner's point was that to reject a 'self-sufficient' NT is not the same as rejecting NT *per se*.¹¹⁴ In this connection, Brunner sought both to expose the inadequate formulations of NT, and propose his own 'proper' NT, an

¹⁰⁹ Hart has argued that the 1934 flash-point between Barth and Brunner was the culmination of long-standing differences between them on the issues of the relationship between theology and philosophy, anthropology and the task of theology. See Hart, *Karl Barth Vs. Emil Brunner*, 101-133, 167-168. For an account of the complex personal relationship between the two men, see McGrath, *Brunner*, 114f.

¹¹⁰ McGrath, *Brunner*, 116; J.E. O'Donovan, 'Man in the Image of God: The Disagreement Between Barth and Brunner Reconsidered', *Scottish Journal of Theology* 39.4 (1986), 433-459, 436.

¹¹¹ McGrath, *Brunner*, 113-114.

¹¹² E. Brunner, 'Nature and Grace', in *Natural Theology: Comprising 'Nature and Grace' by Professor Emil Brunner and the reply 'No!' by Dr. Karl Barth*, trans. P. Frankel, London: The Centenary Press, 1946, 15-65', 46, 59. See also, Moore, 'Theological Critiques of Natural Theology', 230.

¹¹³ Brunner, 'Nature and Grace', 47.

¹¹⁴ Brunner, 'Nature and Grace', 59-60.

important criterion of which lies in its difference from a 'self-sufficient rational system of natural knowledge of God'.¹¹⁵

Brunner's proposal for a proper NT is established on theological anthropology. The cornerstone of Brunner's NT is that humanity retains the capacity to be addressed by God because there is within humanity the continued presence of a 'point of contact'¹¹⁶ between creature and Creator. This must be nuanced by noting that Brunner did not consider this the foundation for autonomous knowledge of God. The formal property of being addressable is not complemented by the material capability to apprehend and understand.

Brunner substantiated his position through the doctrine of the image of God. In Brunner's view, post-fall humanity retains the formal aspect of the image of God.¹¹⁷ It is on the basis of the retention of this formal aspect that Brunner attributed the capacity for humanity to be addressed by God.¹¹⁸ The retention of the formal aspect of the image of God is a 'point of contact', retaining the formal possibility of receptivity toward the Word of God.¹¹⁹ However, Brunner argued that the material aspect of the *imago Dei* is lost. On account of this, humanity does not have the material capability in itself to believe the Word of God.¹²⁰ For this reason, while Brunner accepted natural revelation,¹²¹ arguing

¹¹⁵ Brunner, 'Nature and Grace', 58.

¹¹⁶ For a discussion of Brunner on the point of contact between humanity and God as part of Brunner's programme of eristics, see Hart, *Karl Barth Vs. Emil Brunner*, 124-126, 131. For a discussion of Brunner's concern that Barth had misunderstood him on this point, see Hart, *Karl Barth Vs. Emil Brunner*, 149-150, 154.

¹¹⁷ Brunner, 'Nature and Grace', 56, 25. O'Donovan, 'Man in the Image of God', 436; McCormack, *Critically Realistic*, 404.

¹¹⁸ Brunner, 'Nature and Grace', 32.

¹¹⁹ Smith, *Natural Theology*, 206.

¹²⁰ Brunner, 'Nature and Grace', 119; E. Brunner, *Reason and Revelation: the Christian Doctrine of Faith and Knowledge*, trans. O. Wyon, London: Student Christian Movement, 1947, 95-118. See McGrath, *Brunner*, 119, 122; O'Donovan, 'Man in the Image of God', 436-438; Smith, *Natural Theology*, 199-212.

¹²¹ Brunner, 'Nature and Grace', 26.

that in the act of creating, God ‘leaves the imprint of his nature upon what he does’,¹²² he did not consider this a sufficient basis for the knowledge of God.¹²³

Accordingly, Brunner’s position can be approximated to that of Calvin: while God has revealed himself in creation, this can ‘only be recognized in all its greatness by those whose blindness has been healed by Christ’.¹²⁴ In this connection, it is McGrath’s assessment that Brunner has reproduced ‘the basic consensus of the Reformed tradition of the sixteenth and seventeenth centuries’.¹²⁵

2.2.2. ‘No!’

In his rebuttal, ‘No!’, Barth unequivocally rejected Brunner’s proposal for a ‘proper’ NT, arguing that NT is inimical to the priority of grace in Christian theology.¹²⁶ In Barth’s view, if Brunner’s proposal for NT were to be accepted, it would establish the possibility of the knowledge of God on the side of humanity and not on the side of God alone.¹²⁷

However, the definition of NT upon which Barth sets his response does not immediately make clear what the point of difference between the two men actually is.

By “natural theology” I mean every (positive or negative) *formulation of a system* which claims to be theological, i.e. to interpret divine revelation whose *subject*, however, differs fundamentally from the revelation of Jesus Christ and whose *method* therefore differs equally from the exposition of Holy Scripture.¹²⁸

¹²² Brunner, ‘Nature and Grace’, 25; *Reason and Revelation*, 67.

¹²³ Brunner, *Reason and Revelation*, 65. See also, O’Donovan, ‘Man in the Image of God’, 437; Hart, *Karl Barth Vs. Emil Brunner*, 124-126, 152.

¹²⁴ Brunner, ‘Nature and Grace’, 27.

¹²⁵ McGrath, *Brunner*, 117.

¹²⁶ Barth, ‘No!’, 71. Hart, *Karl Barth vs. Emil Brunner*, 155-157, 158.

¹²⁷ See, McCormack, *Critically Realistic*, 419.

¹²⁸ Barth, ‘No’, 74-75.

It is hard to see exactly how this constitutes a rebuttal of Brunner's position. Brunner also rejected autonomous formulations of NT, and so would also have rejected NT as Barth presented it (as in fact Brunner communicated to Barth in a later letter¹²⁹).¹³⁰

However we should not infer from this that Barth attacked a straw-man. It is on the issue of anthropology that the substantive differences emerge. Barth focussed his response on the issue of the point of contact between humanity and God.¹³¹ In Barth's view, Brunner's notion of humanity's capacity to be addressed is no different from the capacity of humanity to receive revelation.¹³² Accordingly, Barth's resistance is aimed at what he perceived to be the attempt to establish knowledge of God that is not dependent wholly on the grace of God, but on some degree is a possibility within the realm of human possibilities.¹³³ Such a notion would be wholly incompatible with Barth's view that the readiness of humanity is established only on the prior readiness of God.

Quite apart from the retention of some point of contact, Barth reaffirmed his insistence that God is only known as God has given himself to be known,¹³⁴ and only as God has created in humanity the capacity to recognize his self-revelation. In other words, Barth insisted that any capacity of human receptivity to the Word of God is created in humanity by God in his reconciling self-revelation.¹³⁵ Accordingly, Barth resisted what he understood to be Brunner's suggestion of a 'point of contact' between God and humanity that is inherent to humanity and in its place insisted upon the contact which

¹²⁹ See Brunner's letter to Barth, referenced from Hart, *Karl Barth Vs. Emil Brunner*, 162. See also, Smith, *Natural Theology*, 252-253, 255.

¹³⁰ McGrath, *Brunner*, 129-130; Smith, *Natural Theology*, 235.

¹³¹ Anderson, 'New Direction', 241f; Hart, *Karl Barth Vs. Emil Brunner*, 159-160.

¹³² Hart, *Karl Barth Vs. Emil Brunner*, 164.

¹³³ Barth, 'No', 79ff. It may be that on this point Barth has misunderstood Brunner as arguing that humanity have the capacity to apprehend revelation in creation, and can and should actualize that possibility out of the capacity inherent to them. McGrath, *Brunner*, 131; E. Brunner, *Man in Revolt: A Christian Anthropology*, trans. O. Wyon, London: Lutterworth Press, 1939, 527.

¹³⁴ Smith, *Natural Theology*, 189-193.

¹³⁵ Barth, 'No', 76, 79-83, 123; *CD I/2*, 203ff. See also, Hart, *Karl Barth Vs. Emil Brunner*, 151, 160.

God creates through Jesus and the Spirit in the freedom of his grace.¹³⁶ In this connection, Barth insisted that the ‘freedom to know the true God is a miracle, a freedom of God, not one of our freedoms’.¹³⁷

3.0. Torrance’s Engagement with Barth’s Rejection of Natural Theology

With respect to NT, Torrance’s relation to Barth is complex. This complexity is helpful because Torrance’s interpretation of Barth’s rejection of NT is instructive of his own particular position. There are three elements to Torrance’s engagement with Barth on the issue of NT.

First, Torrance endorsed Barth’s rejection of autonomous NT. Torrance’s interpretation recapitulates and supports Barth’s isolation of the feature of human autonomy in opposition to the grace of God as the critical problem of NT. However, Torrance did not contend that Barth rejected NT *per se*, but only the element of autonomy which had driven some formulations of NT.¹³⁸

Second, Torrance stretched Barth’s rejection of NT such that it is brought into connection with Barth’s broader principle regarding the scientific status of theology. Theology is not scientific if by that the theologian applies one universal scientific method to theology. For Barth, theology is scientific only if it brings all thought under the determination of God’s self-revelation. In so doing, Torrance drew Barth’s criticism of NT into relation with more formal questions of theological method, concerning the relation of the material content of God’s self-revelation and the rational structure of human understanding.¹³⁹

¹³⁶ Barth, ‘No’, 87-90. Holder, ‘Natural Theology in the Twentieth Century’, 122.

¹³⁷ Barth, ‘No’, 116-117.

¹³⁸ Morrison, ‘Reformulation’, 64-65.

¹³⁹ Gill, ‘Revelation’, 108, 127.

Third, Torrance developed beyond Barth's rejection of NT by suggesting that Barth has cleared the ground of autonomous NT, with the result that a new version of NT could now be built with a fundamentally new trajectory. In this final sense, Torrance's development beyond Barth is an extension of Barth's rejection of NT into a radical reconstruction of NT that is consistent with the reasons for its prior rejection.

3.1. The Objection to Autonomous Natural Theology

The most sustained of Torrance's interpretations of Barth's rejection of NT is given in his 1970 essay 'The Problem of Natural Theology in the Thought of Karl Barth'. In this text, Torrance suggested that Barth rejected NT for three reasons, all of which hold in common the central conviction that Barth rejected NT as it was practiced as an autonomous human enterprise.¹⁴⁰ The first two reasons that Torrance highlights are direct recapitulations of Barth's position. However, in the third reason, Torrance's interpretation begins to draw new connections, and by so doing Torrance re-envisioned Barth's resistance to NT within broader methodological concerns regarding the relation of the rational structure of human understanding and the material content of God's self-revelation.

3.1.1. The Priority of Grace

Torrance claimed that Barth rejected NT on account of the priority of grace in the knowledge of God.¹⁴¹ Torrance identified Barth as an 'interactionist' theologian in contrast to a dualist.¹⁴² By this Torrance meant that Barth believed that God freely interacts with the world, and is not deistically detached, nor necessarily connected.¹⁴³

¹⁴⁰ Molnar, 'Revisited', 61; Gill, 'Revelation', 110, 116-117, 127; Morrison, 'Reformulation', 64-71, esp. 66; Chung, *Mediations*, 67n88; McGrath, *Scientific Theology*, 1.280-283; *Intellectual*, 183-188; Anderson, 'New Direction', 243.

¹⁴¹ Holder, 'Natural Theology in the Twentieth Century', 121.

¹⁴² Torrance, *KBBET*, 138.

¹⁴³ Torrance, *KBBET*, 138-139; *GG*, 87. See also, Molnar, 'Revisited', 60.

Accordingly, the knowledge of God is not abstract possibility, but concrete actuality established only on God's act of grace.¹⁴⁴ Therefore, humanity does not have to infer from the resources of the natural world, as is necessitated in deistic theologies. Moreover, the prioritization of grace in the knowledge of God itself implies that God does for humanity that which humanity is unable to do for itself.¹⁴⁵ NT is therefore rejected as the expression of human autonomy, attaining toward the knowledge of God in isolation from the grace of God and his one self-revelation in Jesus Christ.

3.1.2. The Objectivity of God's Self-Revelation

Torrance understood Barth to have rejected NT on account of the objectivity of God's self-revelation in Jesus: God has revealed himself in the person of Jesus Christ,¹⁴⁶ therefore to attempt to know God aside from this self-revelation is to surrender objectivity in theological knowledge for it establishes the knowledge of God on that which is not of one nature with God.¹⁴⁷ Torrance's point is that Barth resisted NT because it is based on creation and so divorces the knowledge of God from its ontological moorings.¹⁴⁸ In Torrance's estimation, a major contribution of Barth was to unmask NT as antithetical to the knowledge of God as he really is manifested in his act.¹⁴⁹

3.1.3. The Scientific Status of Theology

Torrance argued that Barth rejected NT in conjunction with his views on the scientific status of theology.¹⁵⁰ This is the area in which Torrance's interpretation of Barth is most illustrative of Torrance's own distinctive position because Torrance appears to have

¹⁴⁴ Torrance, *KBET*, 139; *KBIET*, 88-90, 95-105; *GG*, 87.

¹⁴⁵ Torrance, *KBET*, 144.

¹⁴⁶ Torrance, *KBET*, 140; *KBIET*, 108-111.

¹⁴⁷ Torrance, *KBET*, 141-143.

¹⁴⁸ Torrance, *KBET*, 141. See also, Gill, 'Revelation', 130.

¹⁴⁹ Torrance, *KBET*, 142-144; *KBIET*, 39.

¹⁵⁰ Torrance, *TCFK*, viii-x.

stretched Barth's rejection of NT, by holding it in connection with Barth's views on the scientific status of theology. By so doing, Torrance established Barth's rejection of NT on the grounds of the process of rationality in Christian theology, suggesting that Barth's rejection of NT is connected to his rejection of rational schemas developed apart from God's revelation exercising determinative influence over theology.

Torrance argued that Barth's 'struggle with the problem of natural theology is also a struggle for rigorous scientific method in theology'.¹⁵¹ By this, Torrance claimed that Barth's rejection of NT is part of a broader effort in Barth's thinking to resist the critical tendency to systematize the way things appear in coordination to our own rational schemas.

Barth is concerned to attack the erection of a masterful epistemology, elaborated *independently* of actual theological inquiry, which is then applied *prescriptively* to knowledge of God. In his rejection of this kind of 'philosophy' Barth stands shoulder to shoulder with every proper scientist who insists on the freedom to develop scientific methods appropriate to the fields of inquiry and to elaborate epistemological structures under the compulsion of the nature of things as it becomes disclosed to him in the process of his investigation [...].¹⁵²

So far as Torrance was concerned, Barth's struggle against NT closely resembles Torrance's own rejection of object-making modes of thought.¹⁵³ In Torrance's estimation the problem Barth had with NT is that NT constitutes a rational structure formed in abstraction from the material content of God's self-revelation in the incarnate Word.¹⁵⁴ In challenging it, therefore, Torrance argued that Barth took his place alongside others who challenged the *modus operandi* of object-making thought and identified that the rational structure of understanding must be shaped by the material content.

Torrance's interpretation of Barth on this point must be understood in connection to Barth's position in his dispute with Heinrich Scholz. The crucial issue at stake here

¹⁵¹ Torrance, *KBBET*, 145.

¹⁵² Torrance, *KBBET*, 146.

¹⁵³ Torrance, *GG*, 89-90.

¹⁵⁴ Torrance, *KBBET*, 130, 146-147; *GG*, 90.

was the terms upon which a discipline may be called a science. Scholz established a number of postulates which a discipline must satisfy in order to truly be scientific. To Barth, this constituted an *a priori* and universal scientific method, which, if applied to theology, would constitute the betrayal of theology.¹⁵⁵ Barth insisted that scientific adequacy comes through thinking in a manner that is appropriate to the object, not in the imposition of a predetermined scientific method. According to Torrance, Barth rejected autonomous NT on the grounds that it is scientifically illegitimate (because, in this view of its scientific status, theology should be determined by the Word of God alone). In Torrance's view, Barth's rejection of autonomous NT is the same perspective from which Barth rejected the imposition of any prolegomenous rational structure upon theology on the grounds that it casts theology off from its proper material content.¹⁵⁶

Elsewhere, Torrance argued that Barth's rejection of NT corresponds to the rejection of an antecedent rational framework in coordination with which the empirical component of knowledge is cognized.¹⁵⁷

[Karl Barth rejected NT's] status as a *preambula fidei*, that is, as a preamble of faith, or an independent conceptual system antecedent to the actual knowledge of God, which is then used as an epistemological framework within which to interpret and formulate actual empirical knowledge of God, thereby subordinating it to distorting forms of thought. To set aside an *independent* natural theology in that way is demanded by rigorous scientific method, according to which we must allow all our presuppositions and every preconceived framework to be called into question by what is actually disclosed in the process of inquiry.¹⁵⁸

Just like object-making modes of thought, Torrance argued that autonomous NT functions as a preliminary rational foundation, which has the effect of distorting the actual knowledge of God through his self-revelation. Torrance argued that as NT takes

¹⁵⁵ Barth, *CD*, 1.1, 8-10; Scholz, 'Wie ist eine evangelische Theologie' 49ff. See, W. Pannenberg, *Theology and the Philosophy of Science*, London: Darton, Longman and Todd, 1976, 265-275; McGrath, *Intellectual*, 206-207; *Scientific Theology*, 2.279ff; Chung, *Mediations*, 64-67.

¹⁵⁶ Torrance, *KBET*, 145; *GG*, 89-90. See, McGrath, 'The Search for a Viable Natural Theology', 73; Gill, 'Revelation', 127-133; Molnar, 'Revisited', 61.

¹⁵⁷ Torrance, *KBET*, 142-143; *RST*, 41-42.

¹⁵⁸ Torrance, *STR*, ix-x.

the form of a prolegomena to the actual knowledge of God in his self-revelation, it becomes an antecedently developed rational schema which distorts how God's self-revelation is cognized.

Torrance's point is that Barth rejected NT on account of NT's tendency to act as an idealized rational structure which distorts the positive knowledge of God in his self-revelation. Whether or not this was actually Barth's position, it is certainly the case that Torrance presented autonomous NT as an idealized structure that systematizes the actual knowledge of God in coordination with itself, thereby inhibiting an actual knowledge of God through his self-revelation.¹⁵⁹ This demonstrates that, so far as Torrance was concerned, one of the live issues in Barth's rejection of NT is the struggle for the appropriate relation between God's self-revelation and the rational structure of knowledge through which we cognize God's self-revelation.

3.1.4. The Unifying Point: Autonomy

In Torrance's understanding, it was not NT *per se* that Barth objected to.¹⁶⁰ Instead, underlying the rejection of NT on the grounds of the priority of grace, the objectivity of God's self-revelation and the requirements of the scientific status of theology is the rejection of human autonomy in the knowledge of God.¹⁶¹

¹⁵⁹ Torrance, *STR*, ix-x; *RST*, 41-42.

¹⁶⁰ Torrance, *KBET*, 147; *STR*, 1. See, Wong, 'Appraisal', 69.

¹⁶¹ K. Barth, *The Göttingen Dogmatics: Instruction in the Christian Religion: Volume 1*, ed. H. Reiffen, trans. G.W. Bromiley, Grand Rapids: Eerdmans, 1991, 93; *CD*, II/1, 3-4, 127, 206-207. See, McCormack, *Critically Realistic*, 167, 241-288; Holder, *The Heavens Declare*, 13; McGrath, *Intellectual*, 180; Molnar, 'Revisited', 61.

From this perspective it becomes clear that what Barth objects to in natural theology is not its rational structure but its *independent* character, i.e. the autonomous rational structure which it develops on the ground of 'nature alone' in abstraction from the active self-disclosure of the living God. In point of fact, however, the rational structure for which natural theology strives, but which it does not really reach and can only distort from its independent stance, may be reached within the understanding of faith and comes to light as we inquire into its objective ground in God himself.¹⁶²

According to Torrance, Barth rejected autonomous NT because autonomous NT is a preliminary rational structure which is derived from the resources of nature, and so is not determined by revelation, but rather shapes how revelation is understood. Torrance's contention is that Barth rejected autonomous NT because the element of autonomy meant that the rational structure of NT was developed independently from revelation and thus constituted a preliminary schema from which God's revelation is cognized and distorted.

However, to see the force of this, the formative significance that Torrance attributed to Barth in his own theological development concerning the way in which to relate rational structure to material content must be observed. It was in his studies of Barth that Torrance found a response to the dualistic relationship of rational structure and material content he found in Schleiermacher.¹⁶³ Against this, Torrance insisted that,

any rigorous scientific approach to Christian theology must allow the actual knowledge of God, reached through his self-revelation to us in Christ and in his Spirit to call into question all alien presuppositions and antecedently reached conceptual systems, for form and subject-matter, structure and material content, must not be separated from each other. This did not imply the rejection of philosophical thinking but rather the development of a rigorous rational epistemology governed by the nature of the object, namely, God in his self-communication to us within the structures of our human and worldly existence.¹⁶⁴

Torrance's point is that theology must operate with a rational structure from which revelation is cognized, but that this rational structure is not derived in a static fashion from that which we already know, but rather is objectively determined by God's self-revelation. To seek to cognize God's self-revelation through a rational structure developed aside from revelation implies a deep-seated docetism, suggesting that God the

¹⁶² Torrance, *KBBET*, 147; *GG*, 90; *STR*, ix-x.

¹⁶³ See above, 10-11.

¹⁶⁴ Torrance, *KBBET*, 122.

Son did not really assume creaturely objectivity in his self-revelation.¹⁶⁵ In this connection, Torrance found in Barth's doctrines of the hypostatic union and the communion of the persons of the Trinity a theological system that was shaped by the 'essential connections embodied in the material content of our knowledge of God and his relation to us in creation and redemption'.¹⁶⁶

Torrance's argumentation shows that he viewed the impulse underlying NT to establish a rational structure of theology as legitimate. The error of autonomous NT, however, is that its rational structure is not objectively determined.¹⁶⁷ This point is crucial, for it demonstrates that Torrance did not understand Barth to have accomplished the repudiation of NT *per se*.¹⁶⁸ According to Torrance, it was not NT that Barth objected to, but its autonomous character. If, then, NT can be extricated from its autonomous expression and brought within the parameters of positive theology Torrance's analysis suggests that it has a future within the parameters Barth's vision for a Word-centered theology: a rational structure of understanding shaped by the material content of God's self-revelation.

3.2. Trajectory for Reconstructing Natural Theology

Within Torrance's interpretation of Barth's rejection of NT lie the roots of Torrance's subsequent positive proposals regarding NT. Torrance recognized and accepted Barth's unequivocal rejection of NT as an antecedent rational structure opposed to the grace of God and antithetical to dependence on God's self-revelation through the Word.

¹⁶⁵ Torrance, *KBBET*, 122.

¹⁶⁶ Torrance, *KBBET*, 123.

¹⁶⁷ Habets, *Transposition*, 78.

¹⁶⁸ Torrance, *STR*, x.

However, alongside this recapitulation, Torrance also stretched Barth's rejection of NT, holding it in coordination to Barth's views on the scientific status of theology. In so doing, Torrance set the terms on which he would attempt to move beyond Barth through articulating a more expansive vision for how a renewed NT can facilitate the relation of human rational structure and the objective structure of God's self-revelation. Torrance did more than simply re-state Barth's rejection of NT. Torrance looked to extend the rejection of the autonomous element of NT into a positive reconstruction of NT not as a rational structure *external* to the material content of theology, but as a rational structure *internal* to the material content of theology.

The basis upon which Torrance understood Barth to reject NT gives indications of the future that Torrance observed to be possible for a radically transformed NT.¹⁶⁹

This is why Barth can say that 'natural theology (*theologia naturalis*) is included and brought into clear light within the theology of revelation (*theologia revelata*), for in the reality of divine grace there is included the truth of the divine creation. In this sense it is true that "grace does not destroy but completes it" (*gratia non tollit naturam sed perficit*). The meaning of the Word of God becomes manifest as it brings to light the buried and forgotten truth of creation'. In other words, while our knowledge of him is grounded in God's own intelligible revelation to us, it requires for its actualization an appropriate rational structure in our cognizing of it, but that rational structure does not arise within us unless we allow our minds to fall under the compulsion of God's being who he really is in the act of his self-revelation and grace, and which as such cannot be derived from an analysis of our autonomous subjectivity.¹⁷⁰

This does not fall far short of offering the program to be followed for Torrance's reconstruction of NT. Torrance shifted the ground upon which the future of NT is to stand: while NT as an autonomous discipline is refuted, the development of the rational structure of our knowledge of God under the determination of the trinitarian structure of

¹⁶⁹ McGrath contends that Torrance's position is consistent with Barth's views on NT. McGrath, *Scientific Theology*, 1.280-283. Molnar argues that Torrance's proposals for NT are inconsistent with Barth. Molnar, *Theologian*, 97. My own view is that Torrance is consistent with Barth's fundamental concern to maintain the priority of grace and the Christological exclusivity of theology. However, Torrance attempted something very new with the identification of NT as the rational intra-structure of theology. Habets, *Transposition*, 69-70; Weightman, *Polanyian*, 139-147; Morrison, 'Reformulation', 66.

¹⁷⁰ Torrance, *KBET*, 147-148. Torrance cited K. Barth, *Theology and the Church, Shorter Writings, 1920-1928*, trans. L. Smith, London: Harper and Row, 1962, 342.

God's self-revelation in Jesus Christ is not. Several important factors arising from this passage require elucidation.

First, Torrance connected his vision for the future of NT with a direct citation of Barth. This fact alone is significant because it demonstrates that Torrance understood his proposals for NT to be consistent with Barth's thought. The principle at stake is that NT is not a preliminary foundation for revealed theology, but must be brought within revelation, through which revelation may be cognized. However, the following two points demonstrate that Torrance significantly adapted Barth's meaning.

Second, Torrance insisted that NT must come after revelation and be dependent upon it for its proper operation. In making this point, Torrance cited Barth's comments, which appear to have an orientation toward setting the groundwork for a theology of nature determined by God's self-revelation.¹⁷¹ However, in his interpretative comments, Torrance has adapted Barth's apparent meaning and applied Barth's comment to make the point that the revelation of God requires and creates a corresponding rational structure in our knowledge through which we cognize God's self-revelation. This does not appear to be the point that Barth was making, and it shows Torrance reconfiguring the way in which NT is to be brought within revealed theology.

In the next chapter, it is argued that, while Torrance's proposals include an emphasis on the ostensible trajectory that Barth established toward a theology of nature determined by revelation, Torrance's major concern is to describe NT as a rational structure determined by God's self-revelation and extend the significance of this in the direction of theological method. However, as this movement beyond Barth retains the

¹⁷¹ McGrath, *Intellectual*, 182.

absolute priority of the self-revelation of God over human rational structures, it is a development beyond Barth following a consistent trajectory.¹⁷²

Third, Torrance took Barth's use of the dictum that grace does not destroy nature but perfects it and interpreted it in a distinctive way.¹⁷³ This is part of Torrance's broader adaptation of Barth's suggestion that NT be brought within revealed theology, discussed in the second point. By his own use of this dictum, Barth appears to have meant that it is by the grace of God in his self-revelation that we can rightly understand creation. However, Torrance applied this dictum not to a theology of nature, but rather to the cognitive appropriation of God's self-revelation. For Torrance, grace perfects nature in that the grace of God in his self-revelation determines the rational structure of our thought such that it is truly natural (as in true creaturely conceptuality) but yet wholly determined by that revelation such that humanity may truly be the knowers of God. The grace of God in his self-revelation does not negate human knowledge, but rather enables the rational structure to fall under the compulsive force of God's self-revelation.¹⁷⁴

Torrance's point is that to prioritize God's self-revelation in our knowing of God does not obviate the necessity of the determination of the rational structure of human thought. God's self-revelation needs to be actualized in our knowing by the forming of the rational structure of our knowledge as it is objectively determined by God. It is in this sense that Torrance argued that Barth has set the basis upon which NT can be transposed into the material content of theology where in a changed form it 'constitutes the epistemological structure of our knowledge of God'.¹⁷⁵

¹⁷² Torrance, *STR*, x.

¹⁷³ Torrance, *KBBET*, 155.

¹⁷⁴ Torrance, *KBBET*, 156.

¹⁷⁵ Torrance, *STR*, x; *GG*, 90-91.

To some extent, Torrance found the beginnings of this reconfiguration of NT as the rational structure of thought in Barth.

Instead of holding two conceptual systems, that of natural theology operating with premises outside of faith and that of revealed theology operating with premises within faith, Barth is committed to one coherent framework of theological thought that arises within the unitary interaction of God with our world in creation and incarnation. In place of a dualism, however, he works with a polarity of ontic and noetic structures resulting from the divine interaction, and indeed with an analogical correspondence between the inner intelligibility of the given reality, the being and truth of God, and the rational structure immanent in our understanding of him, the latter being imposed upon us by the self-revelation of God and grounded in the ‘necessity’ or objective rationality of God himself.¹⁷⁶

Torrance’s point is that in rejecting autonomous NT, Barth has rejected ‘noetic rationality governed by its own structure’,¹⁷⁷ and, in a manner that reflects the potency of the influence of the priority of ontic ratio over noetic ratio in Barth’s analysis of Anselm’s *Proslogion*,¹⁷⁸ insisted that the noetic structure of our thought is shaped by the actual structure of God’s self-revelation. This takes the form of an ‘analogical correspondence’ between the structure of God’s self-revelation and the rational structure of our understanding. However, as is developed beneath, Torrance argued that Barth drew back from finally insisting on this point.

3.3. Development Beyond Barth

Torrance argued that Barth did not go far enough in identifying the positive role of NT as the rational intra-structure of theology. On account of the fact that God’s self-revelation takes place in creaturely space and time, ‘there must surely be a closer connection between the conceptualities of theological science and those of natural science than we find in Barth’s thought’.¹⁷⁹ The creaturely conceptualities that are used in the natural sciences are applicable in the task of theology because both theology and the natural

¹⁷⁶ Torrance, *KBBET*, 149-150.

¹⁷⁷ Torrance, *KBBET*, 150.

¹⁷⁸ Torrance, *KBBET*, 150-151.

¹⁷⁹ Torrance, *KBBET*, 152.

sciences have to do with the created universe in which God reveals himself. On this basis, Torrance held that the knowledge of God involves creaturely rationality.

if knowledge of God is to be actualized in us it requires a rational counterpart to it in our structured understanding of it, firm enough to merit philosophical analysis and consideration on its own. How far did Barth appreciate this and how far did he really get to grips with it? [...] How does Barth relate the rational structure in our understanding to the objective structure in God's revelation of himself to which it responds?¹⁸⁰

Certainly, Torrance did not mean by this that creaturely reason aside from divine grace could function as the rational correlate through which the knowledge of God is actualized in human understanding. However, this does not mean that 'we can leave hanging in the air, as it were, the truth of human and creaturely rationality'.¹⁸¹ The rationality of humanity is dependent upon God's gracious revelation, but this does not mean that it ceases to be essential to the actualization of theological knowledge, for, as Torrance has envisioned it, grace does not destroy, but rather perfects nature.

So far as Torrance is concerned, however, Barth has not fully embraced this integration of divine revelation and human rationality in one synthetic union.

Does Barth, then, actually work this out so far as the rational structure of our *human* understanding is concerned in its relation to the reconstruction of that understanding which befalls man in grace? Is it the case that at this decisive juncture Barth seems to draw back, apparently out of anxiety lest the old corruption of Christianity through naturalistic fallacies, which worked such havoc in the history of Protestant theology, should be given any chance to come back? And does he tend to restrict the relation between God and man, grace and nature, to the *event* of grace without working out, at any rate in a way that satisfies his critics, the *ontology* of the creaturely structures it assumes?¹⁸²

Torrance's point is that Barth drew back at the crucial moment of accounting for the coordination of the rational structure in our understanding to the objective structure in God's revelation of himself. That is to say, Torrance saw an ongoing dualism in Barth's thought where God's self-revelation and human rationality run in two parallel lines instead of intersecting. Beyond rejecting autonomous NT (and giving some suggestion

¹⁸⁰ Torrance, *KBBET*, 154-155.

¹⁸¹ Torrance, *KBBET*, 155-156.

¹⁸² Torrance, *KBBET*, 156.

that NT may be reformulated as a theology of nature based on the perspective provided by revelation), Torrance argued that more must be done such that human rationality is not left ‘hanging in the air’.¹⁸³

Torrance’s argumentation implies that Barth has failed to eradicate all traces of a dualism between God and creation. Despite Barth’s ‘interactionist’ theology through which he was able to challenge the deism that undergirded autonomous NT, Torrance argued that Barth was not able give a full account of the relation between divine revelation and the human rationality through which it is cognized. The crux of the matter is on Barth’s understanding of the relationship between grace and nature, which Torrance’s question suggests leans toward an occasionalist understanding where God’s grace momentarily intersects with the natural world without deeply altering the creaturely structures that it touches. Applied to rationality, Torrance’s point is that Barth leaves us in the position where God’s gracious revelation does not alter the very structure of human thought such that human thought is shaped in accordance with the truth of God in Jesus Christ. In this connection, Torrance’s commitment to the vicarious humanity of Jesus Christ who fulfills a perfect human knowledge of God the Father within our creaturely ways of knowing is of fundamental importance.

It is important to note that, in the same year, Torrance made a similar criticism of Barth’s sacramental theology, particularly his understanding of baptism, which ‘seems to [Torrance] to be deeply inconsistent’ with Barth’s trinitarian theology and understanding of the incarnation.¹⁸⁴ That is to say, Torrance saw in Barth’s baptismal theology the retention of a division between divine act and the human sacramental act. This criticism is accepted by Yocum who argues that Barth’s sacramental theology fails to give a

¹⁸³ Torrance, *KBBET*, 156.

¹⁸⁴ Torrance, *Reconciliation*, 99. McMaken, ‘Actualism’, 13-14.

unitive account of divine and human agency.¹⁸⁵ This has recently been challenged by McMaken.¹⁸⁶ This argument cannot be evaluated here, but in terms of assessing the significance of Torrance's work on NT more broadly, this is an important factor in establishing whether Torrance has in fact provided a positive development beyond Barth.

It is precisely on the relation of human rationality and God's self-revelation that Torrance's own proposals for NT look to develop beyond Barth. The substance of Torrance's attempted development is to give the mechanism through which the rational structure of human thought might be more closely coordinated with the structure of God's self-revelation. To facilitate this development Torrance appropriated and adapted Henri Bouillard's description of NT as the rational intra-structure of theology, and the necessary but insufficient condition of theology. In many ways, Bouillard is a strange interlocutor for Torrance to have chosen, because the correlation between human rationality and revelation which Bouillard envisioned appears to be the possibility of natural knowledge of God as the subjective foundation of human knowledge of God. That is to say, the very possibility for humanity to know God within the limits of their creaturely existence is the necessary subjective condition of theology. Bouillard:

It is our position that the knowledge of God which comes from faith presupposes a rational moment of natural knowledge. It is not necessary that the believer has explicated this rational moment; in other words, it is not necessary that the believer has formulated for himself a proof for the existence of God; neither is it necessary that he has evolved the rational implications of his experience; it is simply necessary that the possibility for doing so be present.¹⁸⁷

This is inconsistent with Barth's more dynamic conception of the readiness of humanity to know God as grounded within the readiness of God to be known in a similar way to Brunner's notion of the formal possibility. However, Torrance did not appropriate Bouillard's terminology so that he could the assert capacity of humanity to be the

¹⁸⁵ J. Yocum, *Ecclesial Mediation in Karl Barth*, Aldershot: Ashgate, 2004, 174-175

¹⁸⁶ T. McMaken, *The Sign of the Gospel: Toward an Evangelical Doctrine of Infant Baptism after Karl Barth*, Minneapolis: Fortress Press, 2013; 'Actualism', 21-25. Molnar, *Theologian*, 300-303.

¹⁸⁷ Bouillard, 'Dialogue', 217-218.

knowers of God aside from God's grace. Torrance's concern was to describe how the rational structure of human thought is a necessary but insufficient condition for theological knowledge as it is determined by the actual connections and objective structure of God's self-revelation.

However, there is some correspondence between Bouillard and Torrance's own commitment to the priority of grace. Torrance chose Bouillard to facilitate his development beyond Barth in explaining how the knowledge of God is actualized through a rational structure that is shaped by God's self-revelation. In this connection, Bouillard is in accord with Barth on the crucial point of the priority of revelation.

Catholic theology [...] admits as [Barth] does that the knowledge of God presupposes the occurrence of divine grace which is to say the free revelation of God through Jesus Christ and the free action of the Holy Ghost in the believer.¹⁸⁸

To this extent, Bouillard is in accord with Barth in the rejection of all attempts to prove the existence of God.¹⁸⁹ Yet, Bouillard could not accept Barth's rejection of all natural knowledge of God, for the 'possibility of natural knowledge of God is the transcendental condition of faith'.¹⁹⁰ Consequently Torrance was critical of Bouillard on the grounds that Bouillard identified the human natural capacity to know God as the subjective condition of theology, rather than the shaping of the rational structure of human thought by God's self-revelation.¹⁹¹ Accordingly, Torrance affirmed his adherence to the priority of the readiness of God to be known within which the readiness of humanity as knower is established.¹⁹²

¹⁸⁸ Bouillard, 'Dialogue', 216.

¹⁸⁹ Bouillard, 'Dialogue', 220.

¹⁹⁰ Bouillard, 'Dialogue', 226.

¹⁹¹ Torrance, *KBBET*, 157.

¹⁹² Torrance, *KBBET*, 158.

While Torrance was critical of Bouillard's static conception of the capacity of humanity as 'rational animals',¹⁹³ as the subjective condition of theology, and stressed that Bouillard's view must be modified in connection with the more dynamic account of the possibility of our knowledge of God found in Barth's 'extensive discussion of the *readiness of God* and the corresponding *readiness of man*',¹⁹⁴ Torrance found that Bouillard complemented the prioritization of grace with the vital modifier: 'it is we who know God'.¹⁹⁵ Torrance's criticism of Barth is implicit: Barth has not finally accounted for the fact that the objective self-revelation of God must be actualized in human knowledge by actual human knowers. It is the attention Bouillard gives to the essential status of the human knower in theological knowledge that has attracted Torrance.

The terms of Torrance's positive orientation to NT are set on the question of how to relate the rational structure and material content in theology. Torrance's interpretation of Barth's rejection of NT not only leaves room for the reconstruction of NT on new ground, but actually sets its trajectory. Torrance argued that the future of NT is the use of natural human reason in service to the actuality and objectivity of the knowledge of God in Jesus Christ, whereby the rational structure of human thought is determined by God's self-revelation.¹⁹⁶ Torrance sets the trajectory for the reconstruction of NT in the attempt to maintain the place of human rationality in the knowledge of God, and demonstrates that the rational structure of NT is under the determination of the actual connections in God's self-revelation.¹⁹⁷

¹⁹³ Bouillard, 'Dialogue', 226.

¹⁹⁴ Torrance, *KBET*, 158.

¹⁹⁵ Torrance, *KBET*, 157.

¹⁹⁶ Torrance, *KBET*, 158-159.

¹⁹⁷ Torrance, *GG*, 91.

4.0. Torrance's Rejection of Natural Theology

Torrance's own rejection of autonomous NT focuses on the issue of human autonomy. This examination divides Torrance's rejection of NT into two periods: Torrance's earlier (pre-1960) rejection of NT and Torrance's later (post-1960) rejection of NT. In the earlier period, Torrance exhibits an attitude to NT which is lodged in his Reformed tradition, particularly in the thought of Calvin. However, Torrance still held a nuanced Reformed stance to NT in a distinctive way, particularly with regard to the impact of the effect of sin. In the later period, Torrance's rejection of NT is influenced by his increasingly sophisticated grasp of the complexities surrounding the critical synthesis of intuitive reason and discursive reason. In this period, Torrance retained the parameters of Calvin's position on NT but applied this in a bold and creative way to his epistemological concerns. That is to say, Torrance came to reject NT on the grounds that the rational structure of theology must not be abstracted from its material content and made an independent conceptual system.

4.1. Torrance's Early Rejection of Natural Theology

Torrance's earliest works are characterized by a polemic against human autonomy in the knowledge of God in general, and a rejection of autonomous NT in particular. In a fashion similar to Barth's assessment of the irreconcilability of NT and Reformed theology (and, interestingly at around the same time as Barth's Gifford Lectures), Torrance established his rejection of NT upon the rejection of autonomy in human knowledge and the insistence upon the priority of grace and the exclusivity of God's self-revelation in Jesus Christ.

4.1.1. The Auburn Lectures (1938-1939): Specificity and Exclusivity of God's Self-Revelation

In his Auburn Lectures, Torrance argued that God's self-revelation in Jesus Christ is the only source of the knowledge of God, and that any other means of approach to the knowledge of God is false: the incarnation is 'the actual self-revelation of God [which] means the setting aside of all other knowledge about God as invalid'.¹⁹⁸ In these lectures, Torrance isolated human autonomy as the principle problem of theology, and established the knowledge of God only upon God's self-revelation in Christ through which God is known only through himself and through his saving action.¹⁹⁹

Torrance's Christological exclusivity is established on the unity of nature between the Son and the Father. This has dramatic implications for Torrance's doctrine of revelation. As Jesus is God as the Father is God, the revealer and the revelation are identical: God's revelation is a *self-revelation*.²⁰⁰ As a function of this, Torrance identified the person of Jesus Christ not as the bearer of revelation but actually as himself the self-revelation of God.²⁰¹ Accordingly, Torrance placed great emphasis on the incarnation through which revelation is actualized in the person of Jesus Christ.²⁰² It follows therefore, that Torrance should insist that 'we must learn to *think of God exclusively in terms of Christ*'.²⁰³ For Torrance, revelation is not general in creation itself, but rather it is particular in the person of Jesus. It is, therefore, associated with God's

¹⁹⁸ Torrance, *DJC*, 96.

¹⁹⁹ Torrance, *DJC*, 15.

²⁰⁰ Torrance, *DJC*, 21, 26-28, 61, 68-70.

²⁰¹ Torrance, *DJC*, 71, 98, 140-142.

²⁰² Torrance, *DJC*, 133.

²⁰³ Torrance, *DJC*, 101. Gill, 'Revelation', 51.

gracious decision to give himself to be known,²⁰⁴ and must therefore be an *a posteriori* discipline.²⁰⁵

There is an important soteriological element to Torrance's thought, in that by the incarnate life of the Son, God and humanity are reconciled such that a forgiven humanity may know God.²⁰⁶ This demonstrates that Torrance's account of the knowledge of God emphasizes the priority of God's grace.²⁰⁷

This act of God's sheer Grace, this advent of God, as we have seen already in the Incarnation and in the idea of revelation, means a disqualification of human capabilities and powers as rendering possible an approach of man to God.²⁰⁸

The counterweight to the grace of God falls on Torrance's association between autonomy in human knowledge of God with the doctrine of sin.²⁰⁹ Autonomous humanity cannot know God, but must depend upon grace. The implications of Torrance's position for his attitude to NT are set out clearly in a section considering the implications of the incarnation for human knowledge.

A fourth implication of the Incarnation is a setting aside and indeed an uprooting of all our knowledge. This is a corollary of the fact that the coming of God in Christ means a disqualification of our values, of our self-asserted or vaunted rights. Among these rights are included the right to be able to know God ourselves. When revelation comes it means that we have a revelation of something that was hidden, a revelation of God in Persons who was not therefore knowable impersonally – therefore not known otherwise or knowable *elishow*. This means at once that all our previous categories of thought are punctured; they cannot contain this new knowledge vouchsafed to us in Christ, and therefore we may not pigeon-hole this knowledge in previously acquired thought-forms. Out of its judgement upon these thought-forms the revelation that is given in and through the Incarnation will create new thought-forms, nay, a new language, the language of the Spirit, which will be used by the Spirit to convey spiritual realities [...] the fact that the Revelation of God in a personal and acutely personalised way through the Incarnation means *eo ipso* a refutation of all other knowledge, it means a relativizing of it all.²¹⁰

While NT is not explicitly referred to here, Torrance excluded any claim to the knowledge of God that is not established on God's direct self-revelation through Jesus

²⁰⁴ Gill, 'Revelation', 43.

²⁰⁵ Davis, 'Explanatory Account', 32-33.

²⁰⁶ Torrance, *DJC*, 85-95.

²⁰⁷ Torrance, *DJC*, 21-22, 69.

²⁰⁸ Torrance, *DJC*, 118.

²⁰⁹ Torrance, *DJC*, 159.

²¹⁰ Torrance, *DJC*, 82. McGrath, *Intellectual*, 188.

Christ. Torrance regarded ‘indirect revelation’, or the ‘so-called’ revelation of God in creation to be rejected on account of the specificity of direct revelation.

Importantly, Torrance’s renunciation of human autonomy in theology is not commensurate to the rejection of the human element in the knowledge of God. As the Word became flesh, revelation is actualized within humanity.²¹¹ Accordingly, Torrance recognized that there remains a need for appropriate human response to revelation,²¹² with the implication that anything less would be equivalent to docetism. In this connection, while Torrance denied the autonomy of philosophy, he advocated that philosophy must be retained as a discipline anterior to theology.²¹³ In his statement that ‘the revelation that is given in and through the Incarnation will create new thought-forms, nay, a new language’, Torrance gave an early insight into what his mature proposals for the reconstruction of NT was intended to achieve: the determination of the very rational structure of our thought and speech such that it remains wholly natural but yet shaped and organized in accordance with the structure of God’s self-revelation.

4.1.2. Calvin’s *Doctrine of Man* (1949): Theological Anthropology

Torrance also rejected autonomous NT in his analysis of John Calvin’s theological anthropology, focussing on the doctrine of the image of God, and the doctrine of sin.²¹⁴ An important aspect of Torrance’s early reception of NT is his understanding of the effect of sin on human reason and the disruption of the image of God in humanity. However, Torrance’s analysis is not characterized by the limitation of human reason through the

²¹¹ Torrance, *DJC*, 131-139.

²¹² Torrance, *DJC*, 19.

²¹³ Torrance, *DJC*, 97.

²¹⁴ A. Heron, ‘Calvin in the Theology of Thomas F. Torrance: *Calvin’s Doctrine of Man* (1949)’, *Participatio: The Journal of the Thomas F. Torrance Theological Fellowship* 2 (2010), 44-63, 46-48.

deleterious effects of sin, but rather on the effect of sin on the autonomous orientation of human reason.

The groundwork of this is found in Torrance's relational understanding of the image of God, established primarily on the freedom of God from creation meaning that humanity is created not out of any intrinsic necessity binding creation to God, but rather out of grace.²¹⁵ Torrance held that the image of God refers to the capacity to be conscious of dependence upon God resulting in grateful obedience,²¹⁶ through which the glory of God is reflected. Torrance's point is that objectively speaking, the image of God is rooted in the freedom of God, while, subjectively speaking, it is the grateful obedience of humanity, acknowledging creaturely dependence.²¹⁷ Torrance grounded this conception of the image of God Christologically through the exposure of humanity as judged in their autonomous self-assertion and justified by grace alone at the cross.²¹⁸

Sin is understood as the perversion of the image of God within humanity.²¹⁹ Given Torrance's relational account of the image of God, the essence of sin is the ingratitude of the creature in all attempts of self-assertion.²²⁰ The stress of Torrance's discussion falls on the point that humanity's capacities have become orientated to autonomy and ingratitude. This, to Torrance, is the essence of sin,²²¹ and the total removal of the image of God from humanity:²²² fallen humanity is no longer the image of God for in humanity's autonomy the glory of God is not reflected in the grateful dependence of

²¹⁵ Torrance, *Reconstruction*, 105; T.F. Torrance, *Calvin's Doctrine of Man*, London: Lutterworth Press, 1949, 65-68.

²¹⁶ Torrance, *CDM*, 35-51, 59.

²¹⁷ Torrance, *Reconstruction*, 108; *CDM*, 13-14, 35-73.

²¹⁸ Torrance, *Reconstruction*, 109; *CDM*, 15ff, 59-60.

²¹⁹ Torrance, *Reconstruction*, 108.

²²⁰ Torrance, *Reconstruction*, 108; *CDM*, 70-72.

²²¹ Torrance, *Reconstruction*, 108.

²²² Torrance, *CDM*, 93, 97.

humanity.²²³ Thus Torrance did not understand the effect of sin on the image of God to be the damaging of an ontic characteristic, but rather the disruption of a dynamic relation characterized by the grace of God and the grateful obedience of humanity.²²⁴ Epistemologically speaking, the impact of sin is that humans deploy their reason aside from dependence on the grace of God.²²⁵

Likewise, Torrance's 1942 article 'The Place and Function of Reason in Christian Theology'²²⁶ includes the rejection of the autonomy of reason, informed by a robust doctrine of sin. Torrance considered fallen humanity to be orientated towards sin, which is not only to do with the 'selfishness of appetite but with the *tendency of reason toward autocracy*'.²²⁷ Arising from his resistance to the autonomy of reason in Christian thought, Torrance insisted on the heteronomy of reason, under determination from the Word of God,²²⁸ as the object of theological thought.²²⁹ By this early stage in Torrance's thought, clear divisions were set between autonomous knowledge and knowledge that is under the determination of God's self-revelation.

While Torrance was cognisant of the Reformed emphasis on the limitation placed upon human reason through sin,²³⁰ he tended to place greater emphasis on 'the sin of the mind',²³¹ which is the self-willed application of human reason.²³² Torrance applied both of these elements to his rejection of NT.

²²³ Torrance, *CDM*, 93-94.

²²⁴ Torrance, *CDM*, 106-115.

²²⁵ Torrance, *CDM*, 134.

²²⁶ Torrance, 'Place and Function', 22-41.

²²⁷ Torrance, 'Place and Function', 24.

²²⁸ Torrance, *CDM*, 135ff.

²²⁹ Torrance, 'Place and Function', 29.

²³⁰ Torrance, *CDM*, 118-120.

²³¹ Torrance, *CDM*, 116-127.

²³² Torrance, *CDM*, 123-125.

First, Torrance acknowledged the noetic effects of sin on account of which knowledge of God from nature alone is impossible.²³³ From this perspective, Torrance observed in Calvin's thought the view that God can be known only as he gives himself to be known through Jesus Christ. Creation likewise will only be properly understood from God's self-revelation.²³⁴

Second, Torrance identified autonomous NT as the very expression of the self-will of humanity.²³⁵ Torrance argued that NT as a *preambula fidei*, an antecedent logical structure developed in isolation from God's self-revelation was wholly improper in Christian theology.²³⁶ Instead of leading to the knowledge of God, autonomous NT is identified as an obstruction to the true knowledge of God accessible only through his self-revelation.²³⁷

However, even in establishing that independent knowledge of God from nature is contrary to the grace of God in creation and redemption, Torrance did not reject NT in itself. The reason Torrance gave is that this 'would mean a denial of the natural man in his actual existence'.²³⁸ This is a slightly obscure rationale, but Torrance's point appears to be that to reject NT means to reject the fact that it is we humans that must know God within our natural capacities enabled by God's gracious self-revelation. In this way, Torrance sought to uphold the priority of the grace of God and the dependence of humanity in such a way that did not repudiate the integrity of humanity or of truly human knowledge. Even from this early point, Torrance's engagement with NT is nuanced by his desire to retain the creaturely element in theological knowing, but only in complete dependence upon the grace of God.

²³³ Torrance, *CDM*, 161-166.

²³⁴ Torrance, *CDM*, 171-172.

²³⁵ Torrance, *CDM*, 167-168.

²³⁶ Torrance, *CDM*, 173-174. Heron, 'Calvin in Torrance', 51, 53-54.

²³⁷ Torrance, *CDM*, 174-183.

²³⁸ Torrance, *Reconstruction*, 112.

4.2. Torrance's Later Rejection of Natural Theology

Torrance's later (post-1960) rejection of NT continues the fundamental theme of the rejection of the autonomy of human reason. However, in this period, Torrance's discussion is characterized by further levels of complexity. Specifically, Torrance's later rejection of NT is increasingly shaped by methodological and epistemological concerns:²³⁹ the appropriate synthesis of material content and rational structure in theology. In this period, Torrance rejected autonomous NT because he claimed that an autonomous NT distorted our understanding of God's self-revelation via its determination in accordance to an antecedent rational schema. As Achtemeier rightly notes, 'Torrance argues that a great source of difficulty has been the sinful tendency of theologians to absolutize their own conceptual structures so to treat their own theories as self-sufficient ends of inquiry'.²⁴⁰

4.2.1. Natural Theology as Distorting Rational Structure

The capacity of NT as a pre-established logical system to distort revealed theology is demonstrated in Torrance's essay 'Scientific Hermeneutics of St Thomas Aquinas' (1962). Torrance argued that the impact of autonomous NT is that it determines how the content of revelation is cognized. Torrance gave the example of Aquinas, whose theology, Torrance argued, suffered from the distorting influence of the Aristotelian metaphysical framework, imposed in an absolute manner upon theological reasoning. For Torrance, this constituted the imposition of 'an alien form of thinking' upon God's self-revelation, by which it could be cognized only in accordance with an *a priori* rational structure.²⁴¹ In this connection, the problem of NT as an antecedent and independent

²³⁹ Davis, 'Explanatory Account', 156.

²⁴⁰ Achtemeier, 'Truth of Tradition', 367.

²⁴¹ Torrance, 'Scientific Hermeneutics According to St. Thomas Aquinas', 261; *STR*, ix-x; *RST*, 41-42. See also, Wong, 'Appropriation', 63-65.

rational structure is that it obscures our apprehension of the actual structure of the object studied through an imposition of an external logical framework.²⁴²

This line of criticism is fairly common in Torrance's later works. Torrance repeatedly characterized autonomous NT as an autonomous rational structure which imposes an external cognizable form from the side of humanity. Very often Torrance associated such autonomous NT with a cosmological dualism. First, Torrance argued that the formulation of NT of the twelfth century was compromised by a sacramental view of creation, with creation participating in the truth of supernatural reality.²⁴³ Second Torrance argued that the NT of the eighteenth century was a response to English deism, operating within a Newtonian cosmology which posited its own deistic disjunction based on the association between absolute space and time and the divine mind.²⁴⁴ In such contexts, Torrance argued that NT was deployed as a 'logical bridge' to try to cross the separation between God and the world aside from God's self-revelation.²⁴⁵

In both these periods [medieval scholastic and Enlightenment], however, NT was pursued as an independent conceptual system, claiming to have its value precisely in that independent status, as a sort of *preambula fidei*, antecedent to positive theology, fulfilling a mediating and apologetic function. "Natural theology" of this kind attempts to reach and teach knowledge of God, apart altogether from any interaction between God and the world, and proceeds by way of abstraction from sense experience and inferential and deductive trains of reasoning from observed or empirical facts²⁴⁶

The point of such autonomous NT was to establish some knowledge of God aside from revelation from the resources of the natural world alone, such as the development of an inferential connection between the data of the natural world and the Creator by the use of reason. While the purpose may have been to serve a positive function, Torrance associated such formulations of NT with a prescriptive function of human reason. In this

²⁴² Torrance, *TS*, 104.

²⁴³ Torrance, *RST*, 37.

²⁴⁴ Torrance, *GG*, 85.

²⁴⁵ Torrance, *RST*, 38.

²⁴⁶ Torrance, *RST*, 38.

connection, autonomous NT functions as a rational structure external to the positive knowledge of God in his self-revelation.

Like Euclidean geometry our traditional logic, particularly in its Aristotelian form of class inclusion and exclusion, is an idealisation of formal relations which we prescind from the real world and develop into a formal system of rules for the construction of forms of argument. [...]. In this operation, however, we detach reality from its ontological correlation with empirical reality, for it is the formal and not the material relations we have in mind. The more we refine our handling of these severely formal relations, which we now do through symbolic and mathematical logics, the further removed they become from experience. The difficulty we have with all formalisations of this kind is that we easily become trapped in them. [...]. Now this has undoubtedly been one of the recurring illnesses of theology, most manifest in the great eras of scholastic thought, in medieval or in Protestant eras, but it derives largely from the prescriptive role assumed by an independent natural theology which has developed by way of abstraction from sense experience and logical formalisation of conceptual relations.²⁴⁷

Torrance's point is that, separated from God's actual revelation, NT assumes a prescriptive role. That is to say, NT aside from revelation operates as an independent rational structure which does not develop its mental connections under the determination of God's self-revelation in Jesus Christ. Instead, the mental connections that do exist are those that are creatively established by the chains of inference that can be established by deductions drawn from the natural world.

The problem with such NT is that it takes the role of all idealized rational systems in Torrance's estimation, imposing its own order upon the material content of knowledge.

We have had a similar problem with what is called "natural theology", which in medieval times (in sharp contrast to patristic thought) was abstracted on its own as an antecedent science or as a *preambula fidei*, and as such supplied the general frame of reference in which "revealed theology" was interpreted. The same thing happened in Protestantism with the rise of deism when a new natural theology was developed in the modern style and which also became the frame of reference within which positive theology was given its interpretation. But that must not be allowed to continue, for the rational structure of knowledge of God cannot be scientifically studied except on the ground of actual knowledge where "natural" theology is *natural* to the material content of that knowledge and developed in accordance with the nature of God as He revealed Himself in His Word and Acts.²⁴⁸

NT, when held apart from God's self-revelation, is a pre-determined conceptual system, established aside from God's actual self-revelation in Jesus through a self-willed analysis

²⁴⁷ Torrance, *RST*, 65.

²⁴⁸ Torrance, *GR*, 133-134.

of creation, which foists a rational structure of its own devising on the content of God's self-revelation. Torrance had in view a NT that acted as the rational substructure of theology upon which the knowledge of God through his self-revelation is established as a superstructure.

The problem Torrance saw with such formulations of NT was that such a NT distorts how revelation is cognized.

[autonomous NT] had the effect of providing a prior framework of thought within which the material content of actual knowledge of God mediated through divine revelation was interpreted and moulded without respect to the empirical conditions under which it arose, and was thereby seriously distorted.²⁴⁹

In this connection, Torrance associated autonomous NT with object-making forms of thought that abstract the data of revelation from its internal and natural coherence and impose upon it an extrinsic rational structure (in a way that corresponds to his interpretation of Kantian thought).²⁵⁰ Torrance's point is that prolegomenous versions of NT developed in the context of medieval and enlightenment thought each became an idealized frame of reference that determined how God's self-revelation was interpreted.²⁵¹

Torrance did not conclude from this that NT itself should be jettisoned. Rather, Torrance argued that NT should be determined by the material content of knowledge. The rational structure of theology is not developed independently from God's self-revelation, but rather is under the determination of God's self-revelation. It is in this sense that NT as the formal intra-structure of theology is truly 'natural': *kata physin*, in accordance with the nature of the reality theology endeavours to know.

²⁴⁹ Torrance, *RST*, 41.

²⁵⁰ Torrance, *KBET*, 148.

²⁵¹ Torrance, *RST*, 41-42

Chapter 5

Natural Theology

Torrance attempted to reconstruct NT as the rational intra-structure of theology, which is determined by God's self-revelation. Accordingly, the NT that Torrance proposed is antithetical to formulations of NT that function as an autonomous prolegomena to the material content of God's self-revelation. Rather than NT functioning as the rational substructure upon which revealed theology is built, Torrance's NT is a rational structure that is shaped by revelation. This interplay between NT and revealed theology forms a synthetic structure and this synthesis of NT as rational structure and revealed theology as material content constitutes theological science. By so doing, Torrance's version of NT anticipates a theological programme in which the inherent trinitarian structure of God's self-revelation determines the rational structure of our knowledge of God and is increasingly unfolded and articulated through our modes of thought and speech. That is to say, understood in this way, Torrance's NT is an integral part of his theological method in which human thought is shaped by God's actual self-revelation.

The intent behind Torrance's NT is well demonstrated by the illustrative analogy he drew to the relationship between geometry and physics. Through this analogy, Torrance's project of theological science is found to operate with the same synthesis of rational structure and material content as that which has been observed in the synthesis of the logic of empirical form and the logic of systematic form delineated above. The first task of this chapter is to analyse Torrance's analogy between the relation of NT and

revealed theology and the relation of geometry and physics. It is in the light of this analogy that Torrance's NT can be understood as one part of the 'bipolar structure of knowledge'.¹ The other pole is the material content of theological knowledge, which is God's self-revelation. In relation to the positive, material content of theology, which is God's self-revelation, NT is the rational intra-structure of theological knowledge. As such, NT is the *necessary but insufficient* condition of the knowledge of God determined by God's self-revelation, just as the logic of systematic form was found to be the necessary but insufficient partner of the logic of empirical form.

1.0. From Rejection to Reconstruction

Torrance sought to reconstruct NT in dependence upon the grace of God in his self-revelation.² The movement from Torrance's rejection of autonomous NT to subsequent reconstruction hinges on the following statement,

All this must not be taken to mean the end of natural theology, however, but rather its need for a radical reconstruction through a profounder way of coordinating our thought with being.³

This is an important comment, prefiguring the way in which Torrance altered the ground upon which NT is identified as 'natural'. Rather than being natural in the sense of the use of the resources of nature aside from revelation, NT is 'natural' in that it is human knowledge that is in accordance with the nature of God's self-revelation.

Importantly, this transition from rejection to reconstruction is how Torrance understood Barth's achievement in relation to NT.

instead of rejecting natural theology *tout court*, Barth has transposed it into the material content of theology where in a changed form it constitutes the epistemological structure of our knowledge of God.⁴

¹ Torrance, *RST*, 65.

² See, Davis, 'Explanatory Account', 163.

³ Torrance, *RST*, 39.

⁴ Torrance, *STR*, x.

Barth, Torrance claimed, re-located NT from the prolegomena to theology to its rightful place within the positive content of theological knowledge. On one level, Torrance's NT approaches this from the classical loci of NT as the rational structure of theistic argumentation which is shaped by revelation. However, on another level, this refers to NT that has been transformed from an *a priori* rational structure that distorts the positive content of what is known through God's self-revelation, into the rational structure of human knowledge of God that is objectively determined by God's self-revelation.

Particularly on the latter level, the implications for Torrance's work on NT reach out into his notion of theological science as the rational structure of our theology is determined by the trinitarian structure of God's self-revelation and facilitates its unfolding. However, it may be queried as to why Torrance approached this through the notion of NT. In doing so, has Torrance not obscured the point he was trying to make regarding the proper relation of the rational structure of our knowledge and God's self-revelation? In my view, Torrance used NT as his way of articulating the proper synthesis of rational structure and material content in theology because NT, when treated as a discrete and autonomous division within theology, had traditionally been the locus for the improper relation between rational structure and material content in theology. Torrance's intention was to isolate an approach where theology has proceeded by imposing the structure of human thought upon God's self-revelation, and to invert this relationship so to extend the implications of a proper synthesis of rational structure and material content out into his positive dogmatics.

However, exactly what this means is only intelligible through holding it in relation to the intellectual context set in the first part of this thesis. The best way to do this is to examine Torrance's important analogy of the relation between NT and revealed theology and the relation of practical geometry and physics. Through this analogy,

Torrance identified that the synthesis between rational structure and material content is what is at stake in his work on NT. As such, this analogy is the artery connecting Torrance's work on NT to his broader views concerning rationality.

2.0. The Analogy between the Relationship of Natural Theology and Revealed Theology and the Relationship of Practical Geometry and Physics

Torrance illustrated the relationship between his reconstructed NT and revealed theology by setting it in an analogous relationship to the relationship of practical geometry to physics.⁵ By this analogy, Torrance identified a correspondence between the relation of NT and revealed theology and the synthesis of rational content and material content explored in the first part of this thesis. Despite some inadequacies in Torrance's presentation, this analogy remains of pivotal importance in understanding how Torrance envisioned NT to be the rational intra-structure of theology.

2.1. Introducing the Analogy

According to Torrance, a proper NT relates to revealed theology as practical geometry relates to physics. The relationship between practical geometry and physics is an example of the synthesis of rational structure and material content explored in general form through the synthesis of the logic of empirical form and the logic of systematic form. Through this analogy, then, Torrance described the relation of NT to revealed theology by coordinating it to the relation of rational structure and material content as has been found in the synthesis of the logic of systematic form and the logic of empirical form.

Torrance's proposal follows the structure of a proportional analogy.

⁵ Torrance, *RST*, 39; *GG*, 91-93; *STI*, 69-70; *STR*, ix-xi.

A	:	B	::	C	:	D
As practical geometry	is to	physics,	so	NT	is to	revealed theology.

Torrance was not suggesting that NT is like geometry *per se*, and he was not arguing that physics is like revealed theology *per se*. Aside from this clarification, this analogy could be misunderstood as providing the basis of a radically autonomous NT. Instead the analogy is focused on a proportional correspondence in the structure of the relationship between the distinct poles. The structure of the relationship between practical geometry and physics corresponds to the structure of the relationship between NT and revealed theology: NT relates to revealed theology as practical geometry relates to physics. As such, the discrete poles in the analogy do have some correspondence, but only in the nature of their relationship to the other half of the couplet. NT is like practical geometry, in as much as NT relates to revealed theology in a similar way to the way in which practical geometry relates to physics. Formally speaking, the relationship in view is the proper relationship between rational structure and material content as outlined in the analysis of the synthesis of the logic of empirical form and the logic of systematic form.

The point Torrance was trying to make is that NT and practical geometry alike are the rational structure through which reality is cognized, and that they relate to their respective bodies of material content in the same way: the relation of NT to revealed theology corresponds to the relation between practical geometry and physics. Specifically, NT and practical geometry as rational structures of knowledge are brought within and are shaped by their respective material contents, revealed theology and physics.

Undergirding this analogy is the contention that the rational structure of knowledge is not *a priori*. Instead, the rational structure of knowledge is objectively determined by

reality itself as we encounter it. The crucial intellectual context is Torrance's synthesis of the logic of systematic form and the logic of empirical form as it expresses how the rational structure and material content of knowledge are held in one synthetic structure of knowledge. At the level of the structure of the relationship, the same synthesis is found in the relation of NT and revealed theology.

Norris has criticized Torrance for employing an analogy derived from the relation of mathematics and physics to explicate the proper relation of NT and revealed theology. Norris argues that this is incompatible with Torrance's wider concern that the object of theology should determine theological thought,⁶ suggesting that Torrance's approach leaves theology subservient to physics.⁷ Accordingly, Norris appeals for greater 'candour' in inter-disciplinary dialogue, and affirms the priority of the material of theological knowledge for its method and explication. In some ways, Norris' caution appears justified. Certainly it is valid to raise the question as to whether Torrance (by explaining the relation between NT and revealed theology through recourse to an external discipline) has left theology vulnerable to being correlated to the proposed relationship between practical geometry and physics over which it has no control and which Torrance may have got wrong, or may change over time.

However, Norris' criticism that Torrance has conceded too much ground to determination from extra-theological sources is overdrawn. A major element of Torrance's account of the scientific status of theology is its methodological independence from other disciplines owing to the unique nature of its object.⁸ To assume that Torrance was departing quite so radically from that fundamental methodological conviction on the

⁶ Norris, 'Mathematics, Physics and Religion', 457-470. See also, Gill, 'Revelation', 166-167; Lee, *Living in Union*, 17-20.

⁷ Norris, 'Mathematics, Physics and Religion', 465-466. See also, Weightman, *Polanyian*, 164-165; Gill, 'Revelation', 166-167 and A. Louth, *Discerning the Mystery: an Essay on the Nature of Theology*, Oxford: Clarendon Press, 1983, 52.

⁸ See below, 301-305.

strength of this analogy alone is implausible.⁹ Moreover, Torrance did not establish his understanding of NT upon the ground of the relation between physical geometry and physics. Rather, Torrance used this relationship to amplify and elucidate the relationship between NT and revealed theology that he considered arises necessarily from the subject-matter of Christian theology.¹⁰

Despite not establishing his understanding of NT on the relation of geometry and physics, the connection between the relation of practical geometry and physics and the synthesis of rational structure and material content is only comprehensible in the light of Torrance's views concerning the transition that geometry has undergone in the twentieth century.

2.2. Geometry and Experience

Torrance understood himself to be living through one of the great transitions in human thought. Writing in October 1964, Torrance expressed the conviction that the Church in the twentieth century stood at a crucial juncture owing to developments in the natural sciences that had provoked a dramatic shift in 'cosmological outlook'. Such a transition, in Torrance's analysis, is comparable only to the great cosmological shifts of human history: from the primitive to the Ptolemaic cosmology during the second and fourth centuries and from the Ptolemaic cosmology to the Newtonian cosmology of the sixteenth and seventeenth centuries.¹¹ Torrance notes that, at the time of writing, 'we ourselves are in the midst of just such a vast shift in the thinking of mankind'.¹² In as far as this

⁹ Wong refers to a personal correspondence between Torrance and himself in which Torrance commits himself unambiguously to this principle identifying his use of this analogy as one of the 'tools God has given us as rational creatures to help [us] express and explicate the content of positive theology on its own grounds', Letter from Torrance to W.H. Wong 1st July, 1988, p.2, cited from Wong, 'Appraisal', 192.

¹⁰ McGrath, *Intellectual*, 32-33.

¹¹ Torrance, *Reconstruction*, 260.

¹² Torrance, *Reconstruction*, 260.

‘distinct shift’¹³ pertained to the philosophy of science, Torrance argued that a dramatic transition had taken place in the fundamental epistemological structure of scientific inquiry.¹⁴ Far from cognition taking place through the methodological abstraction of subjective experience through the imposition of a harmonising rational schema, the rational structure of knowledge was understood to be shaped by the reality encountered. Speaking in Kuhnian terms, so far as Torrance was concerned, Einstein’s physical theories were instrumental in this transition and they engendered a ‘revolution’ in human thought.¹⁵

Torrance insisted that it is in this context that Christian theology must be done. Primarily, he argued, theology must learn from the natural sciences the proper way to coordinate thought with being through adopting a unitary mode of thought, as delineated in the first part of this thesis.¹⁶ The crucial transition, as Torrance understood it, was the discovery of the essential unity of structure and substance,¹⁷ which has caused an epistemological environment in which reality is known from its inherent coherence through phenomena.¹⁸ Resultantly, the inquirer is concerned with bringing the rational structure of their conceptual representations under the determination of the ontic structure which has determined phenomena.¹⁹

In as much as he understood the complexities involved, Torrance claimed that Einsteinian physics instigated an epistemological reversal from *a priori* geometry to *a posteriori* geometry. The problem with *a priori*, idealized geometry, Torrance argued,

¹³ Torrance, *TCFK*, 61.

¹⁴ Torrance, *TCFK*, 71.

¹⁵ Torrance, *TCFK*, 243-244.

¹⁶ Torrance, *TCFK*, 243-261, 61; *Reconstruction*, 260; *GR*, 29-31.

¹⁷ Torrance, *TCFK*, 265; *GG*, x.

¹⁸ Torrance, *TCFK*, 248.

¹⁹ Torrance, *TCFK*, 254.

was fundamentally the same as that which he identified as object-making modes of thought.

Immensely successful as Newtonian science was in advancing knowledge of the universe of bodies in motion, it operated with an idealized geometry detached from experience and erected into an independent conceptual system, and then used this as a homogenous framework within which all physical knowledge was pursued and organized.²⁰

Torrance argued that such an approach was found to be invalid, for it was not able to produce conceptual structures that were determined by the coherence inherent to reality.²¹

By ‘idealized geometry’, Torrance had in mind Euclidean geometry, an axiomatic system proceeding by valid inference from five axioms whereby further propositions can be deduced without recourse to any empirical correlate.²² This is an internally valid system, requiring no external, ontological connection, functioning instead by deduction from axioms,²³ such that any statement in geometry could be traced back to these five axioms. To Torrance, Euclid’s system was a logico-deductive system that is not open to the nature of reality.²⁴

Einstein, Torrance argued, traced the problem of the failure of conceptual systems in relation to unitary structure of reality to the separation of geometry and physics.²⁵ Following this trajectory, Torrance argued that for our concepts to be shaped by reality it was necessary for *a priori* geometry to be replaced with other geometric schemas that were developed under the determination of the actual connections inherent in reality.²⁶ Instrumental to this, so Torrance’s argument goes, was the Theory of Relativity, which disclosed the shortcomings of autonomous, idealized geometry. The point is that the

²⁰ Torrance, *RET*, 32-33.

²¹ See, Newell, ‘Participatory’, 32-35.

²² M. Kline, *Mathematics in Western Culture*, London: Allen & Unwin, 1954, 42-44; *Mathematical Thought from Ancient to Modern Times: Volume 1*, Oxford: Oxford University Press, 1972, 59-60, 86-88; F. Borceux, *An Axiomatic Approach to Geometry: Geometric Trilogy I*, Cham: Springer, 2014 43-44.

²³ Nagel and Newman, *Gödel’s Proof*, 4; Waisamann, *Introduction to Mathematical Thinking*, 18ff.

²⁴ Torrance, *TS*, 237; 294-5; *RET*, 34-39; *TCFK*, 320-321.

²⁵ Torrance, *RET*, 33.

²⁶ Torrance, *TNS*, 93.

discovery that reality is a four-dimensional space-time continuum exposed the antecedently developed, three-dimensional Euclidean geometry as an inadequate schema by which to bring external reality to conceptual expression.²⁷

Torrance's point is ostensibly drawn directly from Einstein's comment that apart from the non-idealized 'practical' geometry, 'I should have been unable to formulate the theory of relativity'.²⁸ Moreover, Torrance's implication regarding the relation between geometry and physics is based on Einstein's distinction between practical geometry and axiomatic geometry.

It is clear that the system of concepts of axiomatic geometry alone cannot make any assertions as to the behavior of real objects of this kind [...]. To be able to make such assertions, geometry must be stripped of its merely logical-formal character by the coordination of real objects of experience with the empty conceptual schemata of axiomatic geometry [...]. Geometry thus completed is evidently a natural science; we may in fact regard it as the most ancient branch of physics. Its affirmations rest essentially on induction from experience, but not on logical inferences only. We shall call this completed geometry "practical geometry" and shall distinguish it in what follows from "purely axiomatic geometry".²⁹

As Wong has pointed out, Einstein identified axiomatic geometry as proceeding by the postulation of axioms without any empirical connection.³⁰ Robertson puts the point well: against this closed logico-deductive model, '[Einstein's] theories of relativity has brought into being physical geometries which have supplanted the tradition-steeped *a priori* geometry and kinematic of Euclid and Newton',³¹ through practical geometry under the determination of the material content of physics. Practical geometry thus proceeds by a synthesis of experience and logical inference, and not one without the other.

²⁷ Torrance, *TCFK*, 68-71. Einstein, 'Geometry and Experience', 235. See also, Wong, 'Appraisal', 148-155; 175-177. Wong explains that Euclidean geometry is unsatisfactory in the light of Relativity Theory because, (i) it does not take into account the interlocking relation of space and time (a feature of Special Relativity); (ii) the geometrical structure of space is influenced by the gravitational fields caused by masses, and this relative conception of space (a feature of General Relativity) does not correspond to the laws of Euclidean geometry. See also, Munchin, *Is Theology a Science?*, 55ff; Kaiser, 'Humanity in an Intelligible Cosmos', 243-244.

²⁸ Einstein, 'Geometry and Experience', 235.

²⁹ Einstein, 'Geometry and Experience', 235.

³⁰ Wong, 'Appraisal', 174-175.

³¹ H.P. Robertson, 'Geometry as a Branch of Physics', in *Albert Einstein: Philosopher-Scientist*, ed. P.A. Schlipp, New York: Tudor Publishing Company, 1951, 315-332, 322, 326-327.

It is in this sense that we should understand Torrance's point about non-Euclidean, practical geometries derived from the concrete situation replacing axiomatic, Euclidean geometry. The rational structure through which we express our understanding of reality is determined by the material content of physics itself (i.e. by the actual connections in reality). From this basis, Torrance argued, geometry cannot be developed independent of physics and then deployed as an *a priori* rational schema to cognize experience. Instead, geometry must proceed within the parameters of physical inquiry, such that the rational structure of our conceptual representations may be in accordance with the inner, actual structure of nature.³² So, Torrance argued, in the twentieth century, geometry underwent a transformation from an independent conceptual system to a derivative discipline that was determined by the nature of reality. Furthermore, as an *a posteriori* discipline, Torrance held that geometry has become a necessary but insufficient condition for giving formal articulation to the coherence observed in the material content of our knowledge.³³

2.3. The Parallel Achievements of Albert Einstein and Karl Barth

In Torrance's assessment, Einstein's achievements in physics are parallel to Barth's achievements in theology: 'Barth, without realizing it at the time, was doing in theology precisely what Einstein was doing in natural science'.³⁴ So far as Torrance was concerned, just as Einstein overturned the imposition of an idealized rational structure, and integrated the rational structure of knowledge with the actual state of affairs in reality, so also Barth achieved the renunciation of an independent rational structure in theology.

³² Torrance, *STI*, 69-70. See also, Strauss, *Modern Physics*, 63-70; 71-76; 97-99; Robertson, 'Geometry as a Branch of Physics', 328.

³³ Torrance, *PCT*, 4-5.

³⁴ Torrance, *TCFK*, ix.

Einstein's insistence that geometry must be incorporated into the heart of physics where it becomes four-dimensional, indissolubly bound up with the structure of physical knowledge as itself a form of "natural science", was paralleled by Karl Barth's insistence that natural knowledge of God must be incorporated into the heart of our actual knowledge of God where it is indissolubly bound up with its epistemological structure and serves its scientific articulation and formulation.³⁵

Torrance argued that developments in the natural sciences have (i) created a situation in which a new view of reality as composed of an intrinsic rational form,³⁶ which has in turn led to (ii) a new modality of rationality in which the empirical and theoretical components of our knowledge are 'interwoven from the very start'.³⁷ Torrance argued that a similar procedure must characterize 'theological science' in which the 'imageless relations' of God must be 'supremely regulative' over the rational structure of thought.³⁸ Torrance held that this has already begun in Barth's opposition to antecedent rational structures being imposed upon God's self-revelation through an affirmation of the unity of God's act and being, and the insistence upon the priority of God in the knowledge of God.³⁹

Connecting Barth and Einstein in Torrance's mind is that the rational structure of human conceptual systems is not determined prior to experience and then imposed upon the material content of knowledge, providing some artificial cognizable form. Instead, the rational structure of thought is determined by the intelligibility of reality, such that our thought can be truly determined by the antecedent coherence of the state of affairs beyond the knower. Importantly, Torrance extended his comparison between Barth and Einstein on this matter to Barth's treatment of natural knowledge of God and NT.⁴⁰ Torrance claimed that in attacking NT as an independent conceptual system that distorts revelation,

³⁵ Torrance, *TCFK*, x, 280.

³⁶ Torrance, *TCFK*, 265.

³⁷ Torrance, *TCFK*, 74, 266.

³⁸ Torrance, *TCFK*, 90.

³⁹ Torrance, *STR*, ix-x.

⁴⁰ Torrance, *TCFK*, 280-281.

Barth accomplished a theological version of the rejection of idealized rational structures that parallels Einstein's work in the natural sciences.

2.4. Practical Geometry and Natural Theology

Torrance's proposed analogy functions through the following three points.⁴¹

- (i) The inadequacy of an autonomous rational structure deployed independently from the actual content of what is being inquired into.

Geometry functioning as an *a priori*, axiomatic basis of logical deduction has been demonstrated to be inadequate for the conceptual articulation of reality. Likewise, autonomous NT as a *preambula fidei* distorts our apprehension of God's self-revelation and so is inadequate to the task of bringing the knowledge of God to conceptual articulation.⁴²

- (ii) The rational structure of human thought must be correlated to the actual structure in reality through relocation within the material content of knowledge.⁴³

Geometry cannot be pursued as an independent discipline antecedent to material reality, but must be pursued in constant interaction with physics. Likewise, NT is not to be pursued as an independent discipline antecedent to revealed theology, but must be undertaken in constant interaction with the material content of theology: God's self-revelation.

⁴¹ See, Wong, 'Appraisal', 177-197.

⁴² Torrance, *RET*, 33.

⁴³ Gill, 'Revelation', 155-158.

- (iii) The logical structure of human thought is changed and is no longer autonomous, but rather is determined by reality and orientated to clarifying the coherence in its material content.

Upon its relocation into physics, geometry undergoes a radical mutation from an *a priori* discipline into an *a posteriori* discipline as the servant of the material content of physics, and directed to the task of bringing to conceptual expression the regularity and the order embedded within reality. Likewise, upon its incorporation into revealed theology, NT undergoes a radical mutation from an *a priori* discipline into an *a posteriori* discipline as the servant of its own material content, directed to the task of bringing to conceptual expression the regularity and order embedded within revelation.

In the light of these points, the power of Torrance's analogy lies in the emphasis it places on two key themes: the *relocation* and the consequent *reconstruction* of geometry and NT. In Torrance's view, both geometry and NT have undergone relocations from outside their respective material content to inside the material content of knowledge. As a result of this relocation, Torrance argued that they have undergone a profound reconstruction from autonomous and axiomatic schemas from which the material content is cognized, to an *a posteriori* rational structure of thought, determined by the coherence within reality.⁴⁴

2.4.1. Relocation within Material Content

The radical relocation from antecedent rational structure to a rational structure developed within the material content of knowledge demonstrates that the rational structure through

⁴⁴ See, Wong, 'Appraisal', 189; Gill, 'Revelation', 155-158.

which reality is cognized is developed in an *a posteriori* manner, and so under the determination of the reality encountered.⁴⁵

Euclidean geometry is pursued and developed *a priori*, as an independent science on its own, antecedent to physics, but is then found to be finally irrelevant to the actual structure of the universe of space and time. Everything changes, however, *when geometry is introduced into the material content of physics* as a four-dimensional physical geometry, for it then becomes what Einstein called “a natural science” in indissoluble unity with physics. So it is with NT: brought within the embrace of positive [revealed] theology and developed as a complex of rational structures arising in our actual knowledge of God [...].⁴⁶

Torrance’s point is that Euclidean geometry prioritizes mental connections of valid inference over the actual connections in reality and brackets them off from the frame of reference of inquiry. For this reason, it is unable to produce rational structures determined by the objective connections in reality, and as such it is ‘irrelevant’ to the actual structure of reality. Similarly, NT as a *preambula fidei* is scientifically invalid as it acts as an antecedent and idealized rational schema that discounts the objective connections in God’s self-revelation, and distorts the material content of revelation in accordance with its own rational schema.

What is required is the transposition of geometry from its position as an external rational structure (a rational *extra*-structure) into the material content of physics, such that it operates as an internal rational structure (a rational *intra*-structure). In this case, the actual structure of reality exercises determinative force over the rational structure of our knowledge. In the same way, NT is to be relocated within God’s self-revelation through Jesus Christ. The point in focus in this relocation is the removal of the independent character of NT, and the assertion of its dependence upon the actual, positive content of

⁴⁵ Gill, ‘Revelation’, 155-158.

⁴⁶ Torrance, RST, 39. Torrance referred to Einstein, *Ideas and Opinions*, 232ff. See also, Torrance, *KBBET*, 148-9; *GG*, 92; *STI*, 69-70. However, as Wong points out, Einstein himself retained a role for axiomatic geometry. Wong ‘Appraisal’, 185.

revealed theology, on account of which the rational structure developed at the level of NT is determined by the actual structure of God's self-revelation.⁴⁷

2.4.2. Reconstruction in Accordance with Material Content

The second element of correspondence between the relationship of geometry and physics and the relationship of NT and revealed theology is that (having been relocated within the body of positive knowledge) both NT and geometry undergo a profound *reconstruction*.

In the citation above, Torrance used two verbs to indicate what happens to a rational extra-structure when it becomes a rational intra-structure. The extra-structure is 'introduced' and 'brought' within its respective material content.⁴⁸ 'Introduced' suggests a coming together of that which was separate. On the other hand, as Wong notes, 'brought' is a figure of speech suggesting a transition that includes a change of state.⁴⁹ Together, these terms imply that two disciplines that were not integrated before have undergone an integration. Furthermore, as a consequence of this integration, NT and geometry have undergone a change of state.

The precise nature of the change of state undergone by NT is made clear in the next citation, which follows on directly from the previous.

[...] arising in our actual knowledge of God it becomes "natural" in a new way, natural to its proper object, God in self-revealing interaction with us in space and time. Natural theology then constitutes the epistemological "geometry", as it were, within the fabric of "revealed theology" as it is apprehended and articulated within the objectivities and intelligibilities of the space-time medium through which God has made himself known to us.⁵⁰

⁴⁷ Torrance, *RET*, 33-34; *GG*, 92.

⁴⁸ Torrance, *RST*, 39.

⁴⁹ Wong offers the helpful illustration of water being *brought* to boil, causing it to change state from liquid to gas. See Wong, 'Appraisal', 180.

⁵⁰ Torrance, *RST*, 39.

Having been divested of its independent status and brought into an inseparable integration with revealed theology, NT like practical geometry undergoes a change of state. Several points can be made on this important theme.

First, the precise change of state in view is the transformation from abstract and independent conceptual systems to a rational structure of knowledge that is controlled by the actual connections in reality. The change in state is from an *a priori* structure of cognition to an *a posteriori* structure of cognition.

Second, both geometry and NT become ‘natural’ in a new way. They are natural in that both are determined by reality such that they are in accordance with the nature of the object under inquiry. In this connection, Torrance provided a powerful redefinition of the ‘natural’ in NT, rendering it complementary with the Alexandrian (*kata physin*) scientific approach.⁵¹ Neither geometry nor NT can be pursued as a closed conceptual system, but must rather be brought into correlation with their actual and positive subject-matter such that they are determined in accordance to the inherent intelligibility of reality.⁵² Rather than operating as an independent logical system that abstracts appearances from their own internal coherence and harmonizes them in accordance with an idealized rational schema, NT and practical geometry are an objectively determined rational structure, under the antecedent structure inherent to the material content of knowledge.⁵³

Third, the reconstructed NT and physical geometry are both human rational structures developed in an *a posteriori* fashion, in accordance to the proper object, such that the inherent intelligibility in the proper object is brought to conceptual articulation.

⁵¹ Torrance, *TNS*, 5-6.

⁵² Torrance, *KBBET*, 148-149.

⁵³ Torrance, *KBBET*, 149.

NT is characterized by its deployment of creaturely forms of thought and creaturely logical connections which have come under the determination of the way God has revealed himself in creaturely objectivities and intelligibilities. NT is both fully determined by God's self-revelation and yet fully human. It is a human conceptual framework orientated to participate in the truth of the nature of its object, which is God's self-revelation.

In describing NT as the 'epistemological geometry' of theology, Torrance meant that NT is the rational structure of our cognition which is determined by the object of theology. As the epistemological geometry of theology, NT is the logical machinery of theology where we establish mental connections under the determination of the actual connections in God's self-revelation. As such, it is a human endeavor, but one that is utterly dependent upon the grace of God in his self-revelation.

Torrance concluded his discussion of the analogy with an analysis of the importance of the reconstructed state of NT.

[...] known to us. As such, however, natural theology has no independent status but is the pliant conceptual instrument which Christian theology uses in *unfolding and expressing the content of real knowledge of God*, through modes of human thought and speech that are made rigorously appropriate to his self-revelation to mankind.⁵⁴

In this section of the citation Torrance clarifies the exact function of his reconstructed NT once it has been relocated within revealed theology. Just as physical geometry is the instrument through which the material content of physics is expressed,⁵⁵ so also NT is the instrument through which human knowledge of God is expressed. Torrance's point is that both NT and practical geometry are second order, logical activities to bring that which is known through intuition to logical articulation. In this way, Torrance's reconstructed NT is a 'conceptual instrument' by which to better understand the material content of

⁵⁴ Torrance, *RST*, 39.

⁵⁵ Torrance, *STR*, ix.

theology.⁵⁶ Crucially, aside from the positive encounter with God's self-revelation, NT remains utterly empty and so the grace of God in his self-revelation remains all-important. Just as with physical geometry, the task of a Torrance's reconstructed NT is to facilitate the formalization of the material content of knowledge into coherent conceptual representations, such that the interior coherence of reality may be increasingly disclosed.

2.5. Problems with Torrance's Analogy

Torrance's analogy has two significant problems.

First, Torrance misunderstood the relation between geometry and physics in the nineteenth and twentieth centuries. Weightman has observed that the non-Euclidean geometry which Torrance claimed to be developed under the determination of the inherent order of reality disclosed through physics was, in fact, developed some fifty years before the formulation of the theory of General Relativity.⁵⁷ This means that those geometries which Torrance identified as '*a posteriori*' geometries (geometries developed to bring the intrinsic rational structures of reality to formal expression) were themselves developed prior to the material content which supposedly determined them.⁵⁸

Second, Wong notes that not only have non-Euclidean geometries been developed apart from coordination to physical reality, but that the method of developing geometrical theorems and then subsequently comprehending physical events in coordination to these has been fruitful for scientific progress.⁵⁹ It follows, then, that in describing the relation of NT and revealed theology via an analogy to geometry and physics, Torrance quite

⁵⁶ Torrance, *RST*, 54.

⁵⁷ Weightman, *Polanyian*, 165. See Strauss, *Modern Physics*, 63-6. See also, N. Coates, 'Some Implications of Michael Polanyi's Concept of Personal Knowledge for Theological Method' M.A. dissertation, University of Wales, 1983, 81. Cited from Wong, 'Appraisal', 187.

⁵⁸ Kline, *Mathematics in Western Culture*, 417, 419, 429; *Mathematical Thought*, 3.869-874, 879-881. Note particularly Kline's assertion that logical validity was the criterion for the acceptance of non-Euclidean geometries.

⁵⁹ Wong, 'Appraisal', 180-182.

plausibly could be taken as arguing that an autonomous NT developed as an independent discipline prior to positive theology and later applied to the body of revealed knowledge could be fruitful for the task of theology!⁶⁰ Torrance's presentation of his analysis does not allow for the complexity of the development of non-Euclidean geometries, and in correlating non-Euclidean geometry to *a posteriori* thought he ran the risk of obscuring the point he was trying to make. The first problem is thus compounded by the second problem.

One may well defend Torrance by arguing that in using the prefix 'practical' geometry, Torrance made it very clear by the reference to Einstein that what was in view in the comparison to his version of NT was an *a posteriori* form of geometry antithetical to axiomatic geometry. However, Torrance did not maintain a careful distinction between practical geometry which is correlated with physics, and axiomatic geometry which is an idealized rational schema. Wong observes that some formulations of Torrance's analogy identify 'geometry' in general terms, rather than specifying that it is *practical* geometry (as opposed to axiomatic geometry) that is being identified as bearing a relationship to physics that is analogically proportional to the relation between NT and revealed theology. Consequently, Torrance's presentation of this important analogy is ambiguous, and in speaking of geometry in general terms, he could be understood as saying the relationship of axiomatic geometry to physics is analogically proportional to the proposed relation between NT and PT. This is the very opposite to the point he was trying to make.⁶¹

Wong has, however, attempted to salvage Torrance's analogy. Wong argues that Torrance's understanding develops over time, and that the later examples of this analogy

⁶⁰ Wong, 'Appraisal', 182.

⁶¹ Wong, 'Appraisal', 183.

correct the ambiguity of its earlier deployments. Wong argues that prior to the 1980s Torrance had not yet grasped the significance of the distinction Einstein held between axiomatic geometry and practical geometry. This imperfect grasp of the subject-matter meant that when Torrance spoke in general terms of ‘geometry’ as related to physics in a manner that corresponds to the relationship between NT and revealed theology, his meaning was unclear.⁶² After the 1980s, Wong claims, Torrance became far more uniform and accurate, using the prefix ‘practical’ geometry in his analogy to make very clear that NT is to function in a way that corresponds to an *a posteriori* rational structure of knowledge.⁶³

Wong’s attempts to excuse Torrance by arguing that Torrance improves in his capacity to use the analogy in an unambiguous fashion are unconvincing. Wong’s defence hinges on whether or not Torrance’s manner of expressing the analogy becomes less ambiguous over time. However, the watershed of 1980 that Wong identifies, and the clear line of development from confusion to clarity is not quite so neat. By referring to Torrance’s unambiguous use of ‘physical geometry’ in *Reality and Scientific Theology*, Wong takes its publication date in 1985 as his guide, rather than 1970 when the lecture was first delivered. For Wong’s claim that Torrance’s thinking becomes less ambiguous to be correct, the original 1970s lecture must have stated geometry in general before being adapted for its publication in 1985. This is not beyond possibility, particularly as Torrance noted in the preface that some adaption was made to the original lectures.⁶⁴ However, problematically for this assumption, the corresponding adaptation is not made in *Ground and Grammar*. Once again, this text is composed of several lectures delivered

⁶² See, Torrance, *KBET*, 148; *GR*, 100; *STR*, x; *STI*, 69-70.

⁶³ Wong, ‘Appraisal’, 180ff. Torrance, *RST*, 39; 64.

⁶⁴ Torrance, *RST*, xi.

prior to its publication.⁶⁵ However, through two separate editions (separated by some two decades), geometry remains expressed in general terms, and does not undergo the same projected modification.⁶⁶ If Torrance became aware of the problems inherent in his mode of expression, why would he make the requisite change in one place and not in another?

It is more accurate to conclude that, on occasions, Torrance's presentation of the analogy is simply not very good. However, understood in the light of the intellectual context of Torrance's thought, Torrance did not mean to advocate an autonomous rational schema developed in isolation from experience. Such a conclusion would run counter to (i) Torrance's criticism of object-making thought; (ii) Torrance's conception of true objectivity; and (iii) Torrance's corresponding conception of science. Moreover, such a conclusion would oppose Torrance's theological perspective concerning the need to repent from pre-established modes of thought in the effort to have our minds re-structured in accordance with the truth of God;⁶⁷ and also contradict his view that the knowledge of God is a new event in human thought (a self-contained *novum*⁶⁸), 'conditioned by a new relation to God initiated and set up, not from man's side at all, but from the other side of the boundary between man and God'.⁶⁹

The occasions when Torrance does clearly use the modification of 'physical' or 'practical' in application to geometry, are the occasions that should be taken in which Torrance's meaning is clearly expressed. So, cognisant of appropriate criticism, and making allowances for shortcomings in Torrance's articulation of his analogy by understanding it in relation to the relation of rational structure and material content in Torrance's broader epistemology, it is my view that Torrance's analogy remains valid,

⁶⁵ The James W. Richard Lectures at the University of Virginia, Charlottesville, 1978-9, subsequently published as *The Ground and Grammar of Theology* in 1980.

⁶⁶ Torrance, *GG*, 91-92.

⁶⁷ Torrance, *GR*, 10, 82, 118-119.

⁶⁸ Torrance, *CDG*, 19.

⁶⁹ Torrance, *CDG*, 19.

acting as an essential bridge between Torrance's proposals for NT and the intellectual context in which it stands.

In this connection, Torrance's analogy provides vital interpretative parameters within which to understand his distinctive views on NT. By this analogy, it is clear that Torrance proposed that NT is taken from its position as an idealized, external rational structure and used instead as the internal rational structure dependent upon and determined by the antecedent structure of its material content: NT as the rational intra-structure of theology.

3.0. Natural Theology and the Two Senses of the Relation between Rational Structure and Material Content

So far as Torrance was concerned, the problem with autonomous NT is its capacity to distort the actual knowledge of God.⁷⁰ However, Torrance's response to the problems of autonomous NT was not to abandon NT itself, but rather it was to attempt to overcome the improper relation between rational structure and material content in theology. The way in which Torrance sought to overcome this was by insisting that it is a 'bi-polar relation between natural theology and revealed theology that is demanded'.⁷¹ The bi-polarity of this relation is important: NT cannot be separated as an autonomous discipline, but must be held in coordination with revealed theology.

It follows, then, that the power of Torrance's NT is in the inversion of the relation between the rational structure of theology and its material content. Instead of NT functioning as a preliminary foundation for our engagement with revealed theology in an autonomous and external fashion, Torrance's NT is in coordination with the actual

⁷⁰ Torrance, *RST*, 41.

⁷¹ Torrance, *RST*, 42.

knowledge of God through his self-revelation. Torrance described this new relationship by explaining that his NT has been brought within the body of positive knowledge of God.

There are two senses in which NT is brought within revealed theology, which can be traced back to Torrance's appropriation of Barth's comments on this matter. However, Torrance did not delineate carefully between these two different senses. The situation is made more complex owing to the fact that the different senses in which NT is brought within revealed theology overlap. First, in both senses, Torrance described NT with a renewed relationship between the rational structure of theology and its material content. Second, the second sense in which this is the case emerges out from the first. In the first sense, Torrance took on what he saw to be the traditional power-base of an improper relation between rational structure and material content and inverted it. The second sense marks the implications which extend outwards into Torrance's dogmatic theology.

In the first sense, Torrance meant that NT as rational structure is joined to revealed theology as material content at key points, but from those key points of 'empirical' contact, NT examines the natural world to attain some abstract knowledge of God through an inferential system ultimately established upon God's self-revelation, but not such that every step in the logical system has a direct correlate in special revelation. In this sense, Torrance's NT takes the outer form of some of the more classical expressions of NT in a cosmological and an ontological argument. However, the material content of revealed theology exercises the determinative influence of an axiom over the rational structure of an inferential, argumentative construction. This sense provides the clearest opportunities for the interface between theology and the natural sciences, and has dominated discussion in the secondary literature.

In the second sense, NT is brought within revealed theology as the actual intra-structure of theological knowledge at the broader level of the structure of dogmatic theology. In this sense, NT takes on a radically new role and meaning as it intersects with the place of the human rational structure within Torrance's broader theological epistemology. NT is said to meet with the actual rational structure of theology itself, which is determined by God's self-revelation and through which we cognize and further unfold the inherent trinitarian pattern of God's self-revelation. In this second sense, Torrance's proposal for NT is parallel to the epistemological approach encapsulated in the synthesis of the logic of empirical form and the logic of systematic form. This second sense touches more directly upon the problem set in Torrance's analysis of Barth's position on NT regarding what Torrance perceived to be Barth's failure to identify how the rational structure of our understanding is an essential part of theological knowing as it is shaped in accordance to the structure of God's self-revelation.

These two different senses are not distinguished by Torrance in a clear manner. Torrance's reluctance to provide any clear delineation between these two senses may be intentional, owing to the deep continuities between them. On a formal level, both of them have to do with the proper relation between rational structure and material content. It is simply that the first sense envisions this within the frame of reference of traditional NT, and the second sense at the meta-theological level of the place of human rationality in relation to God's self-revelation in theological thought. On a material level, the first sense provides the openness of NT for its broader application, and also the occasion for interface between theology and the natural sciences, through which Torrance drew out the following benefit for theological rationality: the necessity for a method of knowing in which our thought is determined by the actual structure of reality, which is an important factor in his development of the second sense of his work on NT. In this way, the second

sense bleeds through into Torrance's work on the method of theological science and becomes absorbed into Torrance's project of theological science.

Therefore, these two senses are inextricably linked, but need to be distinguished so to provide a clear assessment of the outward extension of Torrance's work on NT in its implications for his dogmatic theology, such that this important element of Torrance's NT is not engulfed by the interface between theology and the natural sciences. So, in what follows, there is an exploration of the two difference senses in which Torrance's NT pertains to a renewal of the relationship between rational structure and material content in theology.

3.1. The First Sense: Torrance's Cosmological and Ontological Arguments

Torrance's versions of the classical loci of NT demonstrate the proper relation of rational structure and material content within the frame of reference of NT as ordinarily conceived. The crucial difference between Torrance's NT and the autonomous formulations of NT within this frame of reference is that the rational structure is attached to and determined by revelation at key points. For this reason, the deductive system is not an idealized schema established as the basis for interpreting God's self-revelation. Instead, the inferential steps in Torrance's cosmological and ontological argument proceed from revealed theology.

Torrance's cosmological argument is established on God's self-revelation as Creator and the associated status of creation as contingent.⁷² Torrance held a theologically stylized understanding of contingency as referring to (i) creation's dependence upon God as it is not in a necessary relation to God, but is created in accordance with the will of God; and (ii) creation's distinct reality as that which is clearly

⁷² Torrance, *GG*, 100-109; *RST*, 52-55.

distinguished from God. Torrance argued that the revelation of God as Creator provides an understanding of the universe as created from nothing and creation endowed with a contingent intelligibility.⁷³ That is an intelligibility which is not self-sufficient (it does not account for its own existence or its existence in the way that it is⁷⁴), but has its source in another.⁷⁵ In its contingency, creation refers beyond itself to its sufficient reason, and thus to a Creator.

Importantly, the reference from creation to God is an ineffable reference that cannot be accounted for aside from the self-revelation of God as Creator.⁷⁶ Torrance described this by saying that creation ‘seems to cry silently for a transcendent agency’.⁷⁷ Therefore, ‘while the contingent intelligibility of the universe demands [...] a sufficient reason for it, it cannot sustain a movement of thought that actually terminates on that sufficient reason’.⁷⁸ Therefore, Torrance’s cosmological argument cannot prove the existence of God or tell us anything about his attributes.⁷⁹ Instead, what is required is the actual interaction of God with his creation through his revelation.⁸⁰

Torrance’s argumentation is built upon a distinction between the generation of the Son from the being of the Father and the making of creation in accordance with the will of the Father. While the Son is generate in a necessary relation to the Father and so is internal to the being of God, creation is made by the volition of God and is not internal to the being of God.⁸¹ It follows, therefore, that there is no necessary relation between God

⁷³ Torrance, *RST*, 44.

⁷⁴ Torrance, *RST*, 52-53.

⁷⁵ Torrance, *GG*, 102.

⁷⁶ Molnar, ‘Natural Theology Revisited’, 58.

⁷⁷ Torrance, *RST*, 58.

⁷⁸ Torrance, *GG*, 105.

⁷⁹ Colyer, *How to Read*, 202-203.

⁸⁰ Torrance, *RST*, 59.

⁸¹ Torrance, *TF*, 87-93; *GG*, 103-104; *DCO*, 21-22. See, G. Deddo, ‘The Realist and Onto-Relational Frame of T.F. Torrance’s Incarnational and Trinitarian Theology’, *Theology in Scotland* 16 (2009), 105-133, 123f.

and creation that forms a connection which can be demonstrated through inferential reasoning from the data of creation alone to the Creator.⁸² While the knowledge of the incarnate Son may be logically reversed such that to know the Son is to know the Father also, there is no possibility of reversing through a mechanism of causality from God's free creation to the knowledge of God, for there is no logically necessary path to follow from effect back to cause.⁸³ Accordingly, Torrance held that it is not possible to move by logical inference from the natural world to the Creator.

Torrance's cosmological argument is not an inferential chain that seeks to erect a bridge between our experience of the natural world and the knowledge of God. However, the cosmological argument itself is a structure of inferential reasoning whereby not everything that can be said has a direct 'empirical' correlate.⁸⁴ Yet, the inferential chain is determined by its points of contact to God's self-revelation. Torrance's reformulation of the cosmological argument intersects with the material content of theology at key points regarding God's self-revelation as Creator.⁸⁵ As Davis rightly notes, 'when we allow our rational minds to be shaped by God's gracious self-revelation, then we can relate rationally to the various strata embedded in the structure of reality'.⁸⁶ The key premise by which to rightly interpret creation's silent reference beyond itself to its Creator has to be provided by God's self-revelation.⁸⁷

Torrance believed that there was productive frontier to explore between theology and the natural sciences owing to the fact that both involve our creaturely objectivities, and our experience of the world and with God who makes himself known through

⁸² Torrance, *RST*, 3.

⁸³ Davis, 'Explanatory Account', 159-160.

⁸⁴ Torrance, *RST*, 42.

⁸⁵ Torrance, *GG*, 76-77.

⁸⁶ Davis, 'Explanatory Account', 164.

⁸⁷ Anderson, 'Barth and a New Direction for Natural Theology', 250.

creaturely objectivity.⁸⁸ As Anderson points out, Torrance was critical of Barth for not accounting for the fact that theology and the natural sciences both have in common the objectivity of the universe, within which they do their thinking.⁸⁹ For this reason, Torrance did not recognize a hard division between the task of the theologian and the work of the natural scientist, for both work within the same realm of space and time. Furthermore, the natural scientist in her investigations of the universe may articulate and uncover more of creation's reference to its Creator, if she begins from convictions regarding created reality that are drawn from God's self-revelation. Moreover, Torrance held that theology may learn from the natural sciences a mode of rationality that allows the structure of the object to determine the structure of thought, as opposed to imposing cognizable form from without.⁹⁰

Torrance's interpretation of the ontological argument is referred to slightly less frequently, but it exhibits the same formal relation between rational structure and material content. Torrance claimed that Anselm's ontological argument is not an analysis into being *per se*, but rather emerges from the context of prayer and from the compulsive force of the being of God upon creation.⁹¹ For this reason, Torrance argued that Anselm's ontological argument is derived from the force of God's reality.⁹² This does not involve any mediation through the created realm, and so there is no independent route from created reality to God, but only the unaccountable pressure of the divine being upon humanity, which undergirds an ontological form of NT, which does itself take a rational structure of argumentation.⁹³ Crucially, Torrance's ontology is developed under the determination of the self-revelation of God where God's being interacts dynamically with

⁸⁸ Torrance, *RST*, 68; *RET*, 30-39.

⁸⁹ Anderson, 'Barth and a New Direction for Natural Theology', 245.

⁹⁰ Torrance, *RST*, 81.

⁹¹ Torrance, *GG*, 99.

⁹² Torrance, *GG*, 99.

⁹³ Torrance, *GG*, 100.

creation through the incarnate Son by the Spirit. In this way, Torrance's version of the ontological argument is driven by the *a posteriori* commitment to God's being in his act.⁹⁴ Although, Torrance did not elaborate on what that argument might be, leaving the assumption that Torrance simply sought to re-set the foundations of the ontological argument not in a conceptual analysis of being itself, but rather in the force of the being of God bearing upon creation.

Both the cosmological and ontological arguments involve NT as the rational structure of argumentation, the postulates of which are taken from the material content of God's self-revelation.

The rational structure of the argumentation, when isolated and thus severed from any material content, is incomplete and is indeed illusory, but has force only as it is completed beyond itself through integration with the actual self-revelation of God⁹⁵

Torrance's formulations of the cosmological and ontological arguments do not constitute logical proofs of the existence and attributes of God, but they are chains of reasoning that are necessarily connected to the material content of God's self-revelation, and articulate an engagement with the natural world from the starting point of God's self-revelation.

However, there are elements of Torrance's argumentation which appear to indicate that Torrance was not consistent on this point, and did in fact separate the rational structure of logical argumentation from God's self-revelation.

What we have been seeking to do in this chapter, of course, is to examine the formal structure of our human understanding of God, apart from the divine side of the bi-polar relationship which knowledge of God involves, methodologically and artificially isolating it for analysis by itself.⁹⁶

At first glance, it looks as though Torrance has done exactly what he criticized autonomous NT for doing by establishing NT as the formal structure of human knowledge of God aside from revelation. This is certainly how Molnar views Torrance's

⁹⁴ Torrance, *GG*, 100.

⁹⁵ Torrance, *GG*, 100.

⁹⁶ Torrance, *RST*, 59.

comment that NT may be temporarily bracketed off from revelation for the purposes of clarification.⁹⁷ In Molnar's view, this 'creates a major strain in Torrance's own thinking' because such an approach is inconsistent with his scientific theology.⁹⁸ However, Molnar has misinterpreted Torrance's meaning as he has not appreciated the degree to which Torrance's proposals for NT reach back into the deep structures of Torrance's epistemology.

As a rational structure, NT can be temporarily isolated from revelation, but to do so indefinitely would be to render it 'irrelevant and useless for real knowledge of God',⁹⁹ and so this temporary isolation cannot be done in a way that 'forgets its correlation with revealed theology'.¹⁰⁰ This is similar to Torrance's nuanced position on logic, which valued the logical precision of symbolic logic, but yet held back from ultimately adopting any stylized notation with no ontic correlate into the task of theology. For Torrance, just as symbolic logic is able to achieve sophistication and precision in its inferential systems, but it is ultimately devoid of any ontic correlate and may in fact distort our understanding of reality and so must be joined at key points to reality through empirical correlates, so also NT as a logical argument separated from the material content of God's self-revelation distorts our understanding of revelation.

Accordingly, although Torrance suggested that NT may be artificially bracketed off from its material content on a temporary basis, he immediately qualified this (unnoticed by Molnar) with the statement that NT 'still retains the imprint of its empirical origins and foundations'.¹⁰¹ The inferential chains of reasoning that constitute Torrance's cosmological and ontological arguments are connected to an 'empirical correlate' at key

⁹⁷ Torrance, *RST*, 42. Molnar, *Theologian*, 95.

⁹⁸ Molnar, 'Revisited', 76.

⁹⁹ Torrance, *RST*, 42.

¹⁰⁰ Torrance, *RST*, 43.

¹⁰¹ Torrance, *RST*, 42-43.

points, which become the axioms derived from revelation from which theistic argumentation proceeds.

By artificially separating NT in this way Torrance has set out to clarify that the formal structure of our knowledge of God is wholly dependent upon coordination with the material content of the positive knowledge of God's self-revelation but yet it is still a necessary feature of theological thought.¹⁰² It is for this reason that Torrance is able to separate his proposals for NT artificially and on a temporary basis to 'examine the formal structure of our knowledge of God',¹⁰³ without compromising fundamental theological convictions such as the priority of grace and revelation in theological knowledge.

A proper natural theology, we have argued, may be pursued only in indissoluble connection with revealed or positive theology, but then it is found to coincide with the epistemological intra-structure of our knowledge of God. No more than that latent epistemological structure, can natural theology be abstracted from the material content of actual knowledge of God and erected into a sufficient as well as a necessary condition for knowledge of God. Natural theology considered in itself alone is thus incomplete and only consistent if it is coordinated with positive theology, for it makes use of concepts and theorems which lack meaning and cogency in themselves but which may become meaningful and cogent when they are sublimated and interpreted from the level of divine revelation. Yet it is perhaps this open character of natural theology which gives it its continuing place in Christian thought, for it enables it to play a significant role in the coordinated levels of scientific theology without forcing upon it any distorting reductionism.¹⁰⁴

Torrance's point is that, despite being wholly dependent upon God's self-revelation, the rational structure of our knowledge of God is not redundant. Torrance would not leave human rationality hanging in the air. Therefore, Torrance affirmed that human patterns of thought have an irreducible place in theology, but that they are inseparable from revelation and must take their basic shape from revelation. While this premise has direct applicability to the classical loci of NT, Torrance moved beyond the parameters of the ontological and cosmological arguments, and into the broader field of theological method. It is with this point that Torrance's argumentation transitions from the specifics

¹⁰² Torrance, *RST*, 59.

¹⁰³ Torrance, *RST*, 59.

¹⁰⁴ Torrance, *RST*, 60.

of how one might conceive of the cosmological and ontological argument and onto the synthetic structure of theological thought. However, as this transition is not clearly marked in Torrance's presentation, it is treated separately here to clarify the analysis.

3.2. The Transition to the Second Sense

In the last citation of the previous section, Torrance argued that as a rational structure which is indissolubly connected to the material content of revelation, NT intersects with the very rational structure of theological knowledge. In making this connection, Torrance expanded the scope of NT. The new and broader field of applicability, upon which Torrance was striving to bring his work on NT to bear, is linked to Torrance's work on NT as it pertains to the proper relation between rational structure and material content in theological knowing.

In his cosmological and ontological arguments Torrance has demonstrated how the type of NT which develops theistic argumentation from principles accessible to all aside from religious presuppositions, which are then used as the plausibility structure upon which to establish the knowledge of God through his revelation, might be inverted by establishing God's self-revelation as the essential starting point for any theologically valid engagement with the natural order. By this inversion, the rational structure of theistic argumentation is shaped by the material content of revelation.

The inversion of the relationship between material content and rational structure found in autonomous formulations of NT to the relationship between material content and rational structure in Torrance's formulations of the cosmological and ontological argument intersects with the 'epistemological intra-structure of our knowledge of God'.

This is because Torrance's versions of the ontological and cosmological do include valid inferential chains, but yet these are dependent upon their connection to revelation.¹⁰⁵

The retention of formal inference alongside a fundamental openness to determination of our logical sequences from the side of God's self-revelation is the crucial point at which Torrance's NT is relevant to the broader project of theological science which is concerned to bring the formal structure of human understanding into coordination with the structure of God's self-revelation. Torrance's point is that just as the rational structure of theistic argumentation can be brought within revealed theology in the cosmological and ontological arguments, so the rational structure of our human, theological conceptualisation must be brought within the material content of God's self-revelation.

This point is made by an important moment of transition in Torrance's argumentation in which Torrance argued that NT could have an ongoing role as it coincides with the structure of our knowledge of God as the very structure of our theological knowledge.¹⁰⁶

Hence as we proceed to discuss the positive pole of our knowledge of God we must constantly bear in mind the intimate relation between epistemological structure and scientific subject-matter. The theoretical and empirical components of knowledge are coordinated in such a way as to serve its material content, but while the theoretical components by themselves tell us nothing, the empirical components by themselves remain opaque.¹⁰⁷

It is significant that it is with these words that Torrance transferred from his artificial isolation of NT as rational intra-structure to consider the bi-polar relation of NT and revealed theology (the 'integration between natural and positive theology'¹⁰⁸) as that

¹⁰⁵ Torrance, *RST*, 60.

¹⁰⁶ Torrance, *RST*, 60.

¹⁰⁷ Torrance, *RST*, 60-61.

¹⁰⁸ Torrance, *RST*, 65.

which constitutes theological science.¹⁰⁹ By this, Torrance implied that the manner of the synthesis of the empirical and theoretical components of knowledge where the theoretical acts as the rational structure to cognize the inherent coherence at the empirical level and facilitate its further disclosure is the form of synthesis he proposed between the material content of God's self-revelation and NT: NT is the rational intra-structure of our theology under the determination of God's self-revelation in the same way that the logic of systematic form is the rational structure of scientific knowledge under the determination of the logic of empirical form.

In this trajectory of thought, Torrance attempted something significantly more innovative: to re-employ NT as the rational intra-structure of theology which in synthesis with revealed theology constitutes theological science. In this second sense, the very resources of human thought and speech and our logical capacity are at work to develop the internal structure of theology under the determination of God's self-revelation, and through which the coherence of God's self-revelation is cognized by us and further unfolded.

3.3. The Second Sense: Natural Theology as the Rational Intra-Structure of Theology

Torrance argued that NT is in constant coordination with revealed theology, functioning as the rational intra-structure of theology. In this, Torrance's focus has shifted from the specifics of how one might develop knowledge of God from the natural order, to broader questions of theological method. Torrance's main concern here is not with how one might formulate an argument for God's existence and attributes from a theology of nature. Instead, Torrance attempted to develop an approach which cognizes God's self-

¹⁰⁹ Torrance, *RST*, 64-65.

revelation through a structure shaped in accordance with God's self-revelation, in a conscious reversal of the broad theological approach which cognizes God's self-revelation through an antecedent rational schema.

During a short period (1968-1970), there was a cluster of occasions that Torrance identified NT as the formal structure of human thought that is determined by the structure implicit in God's self-revelation.¹¹⁰ This is the period in which Torrance produced *Theological Science*, and the epistemological principles of that text are apparent in Torrance's treatment of NT. While there is some development in the terminology that Torrance used to explain his views on NT over these examples, the central point in focus remains consistent. Torrance presented a formulation of NT in which NT is no longer an idealized rational structure but is the rational structure of our theological concepts, determined by God's self-revelation. In this sense, Torrance's NT runs parallel to the logic of systematic form in Torrance's *Theological Science*. Accordingly, NT as Torrance conceived of it is integral to the task of *Theologic* in the same way that the logic of systematic form is integral to the task of *ontologic*: the structure of our understanding is brought into accordance with the structure of God's self-revelation.

Sometimes, Torrance prefaced his discussion of NT with the context of the mode of rationality that has arisen from a unitary ontology in the twentieth century.¹¹¹ By doing so, Torrance established his work on NT within the context of a transition in the very framework of thought: the determination of the structure of thought by the actual structure of reality. In describing NT as the rational intra-structure of theology, therefore, Torrance has inverted the synthesis of rational structure and revelation that was found in

¹¹⁰ Torrance, *GR*, 133-134; *STI*, 70; *KBBET*, 148-149; *RST*, 40.

¹¹¹ Torrance, *RST*, 43-51.

autonomous NT, and identified NT as the rational structure of our theology that is determined by revelation. There are three important aspects of this inversion.

First, Torrance described NT as ‘theological geometry’ that is developed in coordination with God’s self-revelation.¹¹² That is to say, NT is the rational structure through which God’s self-revelation is conceptualized and it is ‘no longer extrinsic but intrinsic to actual knowledge of God’.¹¹³ Therefore, Torrance argued that NT performs the function of practical geometry in theology: a rational structure through which we cognize God’s self-revelation.

What Torrance meant by this is well demonstrated by a long passage in which Torrance contended that ecumenical agreement can only be established upon a scientific method in which antecedent rational commitments were suspended in order for thought to be truly determined by reality.¹¹⁴

If Christian theology is to undertake this task it must surely undergo a change similar to that which has been taking place in natural science after the discovery of the new geometries applicable to space and time. Before then geometry was pursued independently of empirical science as an axiomatic deductive science of its own, but now it has become a natural science indissolubly bound up with physics - that is to say, geometrical structures are studied as they arise in and with the actual knowledge of physical events. We had a similar problem with what is called ‘natural theology’ which in medieval times (in sharp contrast to patristic thought) was abstracted on its own as an antecedent science or as a *preambula fidei*, and as such supplied the general frame of reference in which ‘revealed theology’ was interpreted. The same thing happened in Protestantism with the rise of deism when a new natural theology was developed in the modern style and which also became the frame of reference within which positive theology was given its interpretation. The rational structure of knowledge of God cannot be scientifically studied except on the ground of actual knowledge where “natural” theology is *natural* to the material content of that knowledge and developed in accordance with the nature of God as He revealed Himself in His Word and Acts. In other words, positive theology must develop its own ‘four-dimensional geometry’, as it were, which one might call the meta-science of theology, but it must be one that is indissolubly fused with positive and actual knowledge. This would do a great deal to obviate the tendency to impose arbitrarily mental patterns of our own excogitation upon the proper subject-matter of theology and at the same time enable us to develop the inner coherence

¹¹² Torrance, *STI*, 70.

¹¹³ Torrance, *STI*, 70.

¹¹⁴ Torrance, *GR*, 115-119.

and unitary structure of the knowledge of God in and through Jesus Christ with all its compelling results in ecumenism.¹¹⁵

With respect to ecumenical theology, Torrance's point was that denominational differences within the Church will only finally be resolved by surrendering pre-established structures through which revelation is cognized, and allowing the rational structure of our thought to be harmonized in accordance to the self-revelation of God.¹¹⁶ Whether or not this is an overly-simplistic attitude which does not reflect the complexity of issues involved, the point of importance for this analysis is that Torrance explained that NT as a *preambula fidei* is understood in parallel to axiomatic geometry as an idealized framework of thought which determines how the material content of theology is interpreted,¹¹⁷ and that Torrance's NT is identified as an approach in which the rational schemas we use to cognize revelation are patterned in accordance to revelation.

Torrance argued that revealed theology requires its own 'four-dimensional geometry'. By this Torrance meant a rational structure of theology 'indissolubly fused' with the actual knowledge of God in his self-revelation. The purpose of this 'meta-science of theology' is identified as the means through which object-making tendencies of thought are obviated. Also, by joining the rational structure of theology to its material content in one 'unitary structure', Torrance argued that our theological systems will be characterized by coherence. Torrance's point is that the rational structure through which revealed theology is brought to conceptual representation must itself be determined by the actual structure of the self-revelation of God. Instead of human thought imposing a cognizable structure upon revelation, the rational structure of human thought is shaped by revelation.

¹¹⁵ Torrance, *GR*, 133-134.

¹¹⁶ Torrance, *Dialogue*, 1.ix-xxv.

¹¹⁷ Torrance, *KBBET*, 148.

In a parallel passage, Torrance explicitly identified NT with theological geometry. In so doing, Torrance explained that the rational structure that is to be fused with the material content of God's self-revelation, such that the mental patterns of our thought are not imposed on revelation, but rather shaped by revelation, is a function performed by NT.

In this fusion [i.e. the integration of NT and PT], 'natural' theology will suffer a dimensional change and will be made *natural* to the proper subject-matter of theology. No longer extrinsic but intrinsic to actual knowledge of God, it will function as a sort of 'theological geometry' within it, in which we are concerned to articulate the inner material logic of knowledge of God¹¹⁸

Torrance argued that when NT is transposed from its position as a rational substructure upon which revealed theology is established or justified and integrated within the positive body of theological knowledge, it undergoes a significant change. For the first part, NT articulates the 'inner material logic of the knowledge of God'. The task of NT in this connection is to give explicit articulation to the implicit coherent order that characterizes God's self-revelation. This is only comprehensible in relation to the function of coherence statements in relation to existence statements. Just as a cluster of existence statements in their secondary horizontal connections to one another were characterized by an implicit order, and coherence statements were required to draw out that implicit order and make it explicit through valid inference, so now NT as 'theological geometry' acts to make explicit the inherent connections in the knowledge of God by his self-revelation.

This connection is strengthened by appreciating that there are significant parallels between Torrance's notion of 'theological geometry' and his account of logical formalization in theology,¹¹⁹ where Torrance argued that the theologian must develop formal notation (or a 'calculus', a 'theological algebra') by which the 'material logic' of

¹¹⁸ Torrance, *STI*, 70.

¹¹⁹ Torrance, *TS*, 269.

God's self-revelation, is given formal expression.¹²⁰ In both, what is in view is a form of discursive reasoning shaped by actual encounter, in which the coherence that is implicit at the level of our encounter with God's self-revelation is brought to explicit cognition and articulation.

Torrance's argumentation is an attempt to shift the ground upon which NT is properly described as 'natural'. Rather than being natural in the sense of knowing God from the natural world, Torrance's NT is 'natural' in the sense that it is *in accordance with the nature* of God's self-revelation. In this play on words, a subversive - perhaps even funny - tone emerges in Torrance's proposals for NT. Torrance sought to undercut the autonomous forms of NT that cognized God's self-revelation in accordance with inferential structures derived from conceptual analysis from the natural order, which only served to distort the actual knowledge of God such that God could not be known in accordance with his nature. The transposition of NT within the ambit of revealed theology has accomplished a transformation of the terms on which NT is natural, while keeping its character as a rational structure, now shaped by God's self-revelation.

Second, Torrance described NT as the 'essential sub-structure' of theology. The context of this description is, once again, Torrance's analogy between NT and geometry. Torrance's argument followed a course, which by now will be familiar: the replacement of axiomatic geometry with a practical geometry on the grounds that the rational structure we use to cognize must be determined by the nature of reality.

¹²⁰ Torrance, *TS*, 269.

Similarly [...] natural theology can no longer be pursued in its old abstractive form, as a prior conceptual system on its own, but must be brought within the body of positive theology and be pursued in indissoluble unity with it. But then [NT's] whole character changes, for pursued within the limits of our actual knowledge of the living God where we must think rigorously in accordance with the nature of the divine object, it will be made *natural* to the fundamental subject-matter or material content of Christian theology, and will fall under the determination of its inherent intelligibility. No longer extrinsic but intrinsic to the actual knowledge of God it will function as the essential sub-structure within theological science, in which we are concerned to develop the inner material logic that arises in our inquiry and understanding of God.¹²¹

Torrance's choice of terminology has the potential to be misleading. In describing NT as the 'essential substructure' of theology Torrance was not advocating a return to a rationalistic vision for NT in which revealed theology was erected on the foundation of NT. A pivotal difference is that Torrance located the substructure 'within theological science' and not as the extrinsic rational structure. This is an important modification, because it makes clear that the function of Torrance's NT as substructure is to articulate the implicit connections within the 'material logic' that are objectively imposed upon our thinking through the direct experience of God's self-revelation.

Torrance's point is that when NT is brought within revelation, it is indicative of a total inversion in the process of cognition in theology. The human rational structure does not distort our apprehension of the inherent intelligibility of God's self-revelation. Instead, the rational structure facilitates our inquiry into it and understanding of it. What Torrance had in view is very similar to the procedure of the logic of systematic form, where the rational structure of human knowledge is intrinsic to our positive experience of reality and facilitates our understanding of its inherent intelligibility.

Third, Torrance described NT as the 'intra-structure' of theology. This is to be preferred to 'substructure' as it is less ambiguous as a descriptor of what Torrance was attempting to accomplish. However, as is developed in the following discussion,

¹²¹ Torrance, *KBBET*, 148-149.

Torrance's descriptor of NT has been subjected to some criticism, particularly in connection with its connection to the theology of Henri Bouillard.

If we reject a deistic disjunction between God and the world, which we are bound to do, natural theology cannot be pursued in its traditional abstractive form, as a prior conceptual system on its own, but must be brought within the body of positive theology and be pursued in indissoluble unity with it. No longer extrinsic but intrinsic to the actual knowledge of God, it will function as the necessary intra-structure of theological science, in which we are concerned to unfold and express the rational forms of our understanding as they arise under the compulsion of the intelligible reality of God's self-revelation.¹²²

By describing NT as the 'necessary intra-structure' of theology, Torrance identified NT as the structure that is internal to the body of positive theological knowledge. In this way, Torrance made clear that NT is not an autonomous prolegomena to the study of theology, but rather one that is integrated with the positive content of theology from the outset. The notion of an intra-structure is to be contrasted to an extra-structure. An extra-structure is an antecedent rational basis from which God's self-revelation is interpreted. Importantly, the purpose of NT as the necessary intra-structure of theology is to 'unfold' and 'express' the implicit coherence that is compelled in our understanding through God's self-revelation in just the same way that coherence statements drew out the implicit connections between existence statements.

In other words, as the 'necessary intra-structure of theological science', NT is the means through which the implicit coherence in our positive knowledge of God, compelled by the God's self-revelation, is given expression in the rational structure of our theological knowledge. Essential here is the relation between NT as rational structure and God's self-revelation. Torrance's point is that NT is a necessary internal structure of theology, but it is not sufficient in and of itself.

¹²² Torrance, *RST*, 40.

theological science ought to be warned against the possibility of regarding natural theology as a formal system which can be shown to have validity on its own, for that would only serve to transpose it back into an *a priori* system that was merely an empty scheme of thought. In this transformed way we may speak of natural theology as constituting a necessary condition but not, as Henri Bouillard has rightly pointed out, a sufficient condition for theological knowledge. If therefore it is to serve its function within theology, natural theology cannot be treated as being complete and consistent in itself, but only as attaining consistency within the empirical conditions of actual knowledge of God, and therefore as an essentially *open, pliant structure*, involving basic concepts that are decidable only on other grounds or at another level of thought.¹²³

NT is necessary in that it is required to unfold and articulate that which has been made known, but it is insufficient in that it cannot function aside from that material content of God's self-revelation. Formally speaking, this is the same relation of necessity and dependence that characterizes the relation between existence statements and coherence statements in the synthesis of the logic of empirical form and the logic of systematic form. NT, just like coherence statements, is an 'empty scheme of thought' aside from the material content of positive knowledge from experience. As such, NT and the knowledge of God from his self-revelation operate with a 'sort of bi-polar relation', in which they are properly differentiated, but work in conjunction to the end of bringing human thought into accordance with the nature of God's self-revelation.¹²⁴

Torrance acknowledged that he appropriated the descriptions of NT as 'rational intra-structure' and as the necessary but insufficient condition of theology from Henri Bouillard.¹²⁵ However, Torrance's relationship to Bouillard and the way he used Bouillard's terminology is complex. Torrance did not simply appropriate Bouillard's understanding of NT without making significance alterations. For example, Torrance arrived at the term 'rational intra-structure' in a characteristically idiosyncratic way. Torrance re-translated the English edition of Bouillard's text, which renders Bouillard's

¹²³ Torrance, *RST*, 41.

¹²⁴ Torrance, *RST*, 42.

¹²⁵ Torrance, *RST*, 41n5. Torrance cited H. Bouillard, *The Knowledge of God*, trans. S.D. Femanio, London: Burns and Oates, 1968, 62.

term as ‘*infrastructure*’.¹²⁶ This point of detail is critical. NT as *infrastructure* means something very different from NT as *intrastructure*, and this difference is illustrative of the new thing that Torrance was doing.

NT as infrastructure means an organizational structure inherent to the operation of human reason that is the necessary correlate to theological knowledge.¹²⁷ This is precisely what Bouillard meant. Bouillard argued that the subjective condition of faith is within humanity, and that this subjective condition is the possibility of natural knowledge of God, which acts as the rational correlate for revelation.¹²⁸ Bouillard conceived of NT as the inherent organizational capacity of the human mind which makes it the necessary and anthropocentric correlate for theological knowledge. In other words, Bouillard conceived of NT as the schema provided through the rational nature of humanity which provides the subjective condition for the reception of God’s objective self-revelation.¹²⁹

However, this is not what Torrance intended. Indeed, Torrance was critical of Bouillard for treating NT as human rationality as the necessary correlate to revelation.¹³⁰ In re-translating the term as *intra-structure*, Torrance described NT as a rational structure that has been transposed into the material content of theology. The context of Torrance’s use of Bouillard needs to be taken into consideration. Torrance used Bouillard to facilitate his development beyond Barth, whom Torrance believed left human rationality ‘hanging in the air’. Torrance sought to find a way to relate human rationality to the actual structure self-revelation of God without slipping into the ‘naturalistic fallacies, which have worked such havoc in the history of Protestant theology’.¹³¹ Torrance appropriated Bouillard’s phrasing in order to express this, but has adapted its meaning. In my view,

¹²⁶ Torrance, *RST*, 41n5.

¹²⁷ Torrance, *KBET*, 157-159.

¹²⁸ Bouillard, *Knowledge of God*, 39-40, 61-62.

¹²⁹ Bouillard, *Knowledge of God*, 39.

¹³⁰ Torrance, *KBET*, 157-158.

¹³¹ Torrance, *KBET*, 156.

Torrance would have been clearer had he been more directly critical of Bouillard's notion of NT as rational infra-structure rather than offering a questionable re-translation, which has obscured this important point of difference between them.

Molnar's criticisms of Torrance are relevant in this connection. Molnar argues that Torrance's presentation of NT as the necessary but insufficient intra-structure of theology compromises a theology based only on God's self-revelation.¹³² In Molnar's view, to identify NT as a necessary condition for theology concedes the position that identifies God's self-revelation in the Word by the Spirit as the only necessary condition of theology, and so places autonomous thought as the partner of revealed theology.¹³³

On one level, Molnar is right. What Bouillard intended by this phrase is totally ill-suited to Torrance's theological commitments. In Molnar's view, in appropriating this phrase as his own Torrance has departed from the precedent set by Barth and allowed the conditions in which NT as an independent rational schema might control revelation once more. However, Molnar's criticisms are overdrawn. Most significantly, Molnar not appreciated the ways in which Torrance adapted the meaning of Bouillard's phrases in his own use of them.

First, Torrance was critical of Bouillard on the grounds that Bouillard's static conception of a rational structure of theology 'detaches the structure of natural theology from any ground in the being of God'.¹³⁴ In Torrance's view, the relation between God's self-revelation and the rational structure through which we cognize it is more dynamic, with the readiness of humanity to know God established by and grounded in God's primary readiness to be known and establish humanity as the knowers of God. Second, it

¹³² Molnar, 'Revisited', 81. Habets, *Transposition*, 88, 90-91.

¹³³ Molnar, 'Revisited', 73. Molnar cites, Torrance, RST, 41.

¹³⁴ Torrance, *KBBET*, 158.

is unlikely that Torrance would have surrendered his well-established methodological antipathy to idealized rational structures. Moreover, when Torrance explained to Barth what he meant by NT as the rational intra-structure of theology under the determination of its material content (contrasting it to the epistemological function of idealized geometry) he reported that Barth accepted it.¹³⁵

Molnar has not appreciated the complexity of the conceptual background on this occasion. Torrance's view that NT is the necessary but insufficient condition for NT may be traced to sources other than Bouillard. In his *Preface to Logic*, a text which exercised considerable influence upon Torrance's view of logic, Morris Cohen described deductive reason in relation to the empirical component of knowledge as the necessary but insufficient condition of knowledge.¹³⁶ In my view, this is the crucial conceptual background to the way Torrance adapted Bouillard's description of NT as the necessary but insufficient condition of theology. When viewed in this connection, Torrance's claim that NT is the necessary but insufficient condition of theological knowledge is not what Molnar thinks it is. Instead, Torrance expressed that theological knowledge does not involve an idealized rational structure, independent from the material content of theology and subsequently imposed upon it. However, theology does operate with a rational structure that is determined by the antecedent structure of God's self-revelation. Understood in this connection, Torrance's position favourably compares to Barth's position in dispute with Heinrich Scholz over the scientific status of theology.

In this connection, Torrance's use of the adjectives 'essential' and 'necessary' with respect to NT should be understood as an adoption and adaption of Bouillard's description of NT as the 'necessary but insufficient' condition of theology. Bouillard

¹³⁵ Torrance, *STR*, ix-x.

¹³⁶ Cohen, *Preface to Logic*, 55.

intended this phrase to communicate a natural capacity innate to humanity that is the necessary correlate to the knowledge of God by revelation.¹³⁷ Torrance meant something far closer to Morris Cohen's description of formal logic as the necessary but insufficient condition of theology. This is demonstrated by Torrance's identification of the synthesis of NT and revealed theology as theological science.

4.0. Natural Theology and Theological Science

In identifying NT as the rational intra-structure of theology and coordinating it with the very structure of theological knowledge, Torrance extended the function of NT beyond its traditional utilization as the knowledge of God established from the resources of nature. As rational intra-structure, Torrance has identified NT as the rational structure of our theological concepts, through which God's self-revelation is cognized. It is in this connection that Torrance described theological science as the synthesis of NT and the positive knowledge of God through his self-revelation. However, before analyzing the composite structure of theological science directly, the terms on which Torrance considered theology to be a science need to be discussed.

4.1. Theology as a Science

Integral to Torrance's notion of theology as a science is the delicate relation between God's self-revelation and the human rational structure through which God's self-revelation is cognized. God's self-revelation determines the rational structure of our thought, but this does not compromise the validity of our human modes of thought as appropriate within the one composite structure of theological science.

¹³⁷ Bouillard, *Knowledge of God*, 39.

An integral aspect of Torrance's conception of theology as a science is the distinction between special and general science.¹³⁸ Underlying this distinction is the rejection of the application of one universal scientific method to theology.¹³⁹ It follows that in identifying theology as a science Torrance was not suggesting that theology should adopt a single universal method of scientific inquiry.¹⁴⁰ This approach Torrance associated with the regulating of experience in accordance with pre-established mental categories.¹⁴¹ Instead in identifying theology as a science, Torrance referred to the determination of human thought by the proper object of theology, which is God in his self-revelation, such that the inner logic of revelation shapes our thought concerning God.¹⁴²

Torrance's point is that theology is a science on the grounds that it coheres with the general principle of scientific thought: to develop conceptual representations determined by the object.¹⁴³ However, theological science is different from all the other sciences (i.e. it is a special science) in as far as its object is unique to theology alone and theology adopts a specific modality that is appropriate to its object. Accordingly, Torrance argued that theology uses the tools of reason that are common across all inquiries that seek to know reality in accordance with its nature within a more specialized commitment to those methods of knowing that are demanded by its own unique object.

Andrew Louth has challenged Torrance's correlation between theology and the methodology of natural science.¹⁴⁴ However, Louth's concern with a universal conception of science from Enlightenment principles is misplaced given Torrance's rejection of the

¹³⁸ Torrance, *TS*, 106-140. See Sankey's corresponding distinction between monist and pluralist conceptions of scientific method. Sankey, *Scientific Realism*, 89-107.

¹³⁹ Torrance, *TS*, 111.

¹⁴⁰ Torrance, *TS*, 106-110.

¹⁴¹ Torrance, *RST*, 74.

¹⁴² Torrance, *RST*, 82-86.

¹⁴³ Torrance, *TCFK*, 96.

¹⁴⁴ Louth, *Discerning the Mystery*, 52.

application of a universal scientific method within all sciences in general and theology in particular. The validity of Torrance's project of theological science is not under review here but it should be noted that Torrance is silent on alternative models for treating theology as a science, and so does not satisfactorily weigh up and counteract possible negative implications of his identification of theology as a science. For example, Torrance did not consider how the nineteenth century treatment of theology as a science might contain damaging implications of science as progress of human thought, leading to dismantling of the importance of tradition in theology.¹⁴⁵

This notwithstanding, a crucial factor in Torrance's argumentation is a particular understanding of the proper relation of rational structure and material content in scientific thought. For Torrance, the conceptual content of a science is not determined by the cognition of the rational agent.¹⁴⁶ However, Torrance did not understand this to mean that the logical procedure of reasoning by axioms had to be abandoned. Instead, he contended that axioms should no longer be considered as *a priori* foundations of inference through which there is a logically formalizable relation between experience and concept.¹⁴⁷ With reference to Einstein and Polanyi, Torrance contended that scientific reasoning achieves genuine objectivity when its inferential structure proceeds from fluid axioms. By this Torrance meant a synthetic procedure in which the postulates of logical analysis are shaped and directed by reality. It is on account of this, Torrance argued, that inferential structures are not instrumental but are actually orientated to exposing the inner actual structure of reality.¹⁴⁸ In this way, Torrance argued that the subjective element may be

¹⁴⁵ J. Zachhuber, *Theology as a Science in the Nineteenth Century: From F.C. Baur to Ernst Troeltsch*, Oxford: Oxford University Press, 2013, 120.

¹⁴⁶ Torrance, *RST*, 72-73, 74.

¹⁴⁷ Torrance, *RST*, 76-77.

¹⁴⁸ Torrance, *RST*, 78.

accounted for in such a way that describes the ‘astonishing affinity between the rationality of the subject and that of the object’.¹⁴⁹

Formally speaking, it is this sort of procedure that Torrance argued should apply to theological science. However, at the material level, theology will apply this basic procedure in a manner that is required by its distinct subject-matter.¹⁵⁰ At the heart of Torrance’s theological science is the principle that the knowledge of God is not within the freedom of humanity. Instead, to know God is dependent on the act of God in which God has given himself to be known through Jesus Christ.¹⁵¹ Therefore, God is the object of theology in as much as he is the active agent who gives himself to be known,¹⁵² and establishes humanity as the subjects of the knowledge of God.¹⁵³ Accordingly, the Lordship of God and the grace of God are central to theological science: ‘we know God only through his sovereign and unconditionally free self-giving’.¹⁵⁴ For this reason, God is not an object like any other object because God is the only object that establishes its own subjects of knowledge.¹⁵⁵ In this sense the transfer of authority from the subjective to the objective pole of the knowing relationship is more extreme in theology than it is in Torrance’s treatment of other sciences.

Intimately connected to the fact that God gives himself to be known by humanity and establishes humanity as the knowers of God is the conviction that the nature of God’s objectivity is unique to God: God’s objectivity is a two-fold objectivity.¹⁵⁶ Drawing on Barth’s distinction between the primary and secondary objectivity of God, Torrance argued that God is primarily object to himself and secondarily object to humanity in the

¹⁴⁹ Torrance, *RST*, 73.

¹⁵⁰ Torrance, *RST*, 82.

¹⁵¹ Torrance, *TS*, 26-34.

¹⁵² Torrance, *TS*, 37.

¹⁵³ Torrance, *TS*, 132-133.

¹⁵⁴ Torrance, *TS*, 298-299, 37.

¹⁵⁵ Torrance, *TS*, 132.

¹⁵⁶ Torrance, *TS*, 298.

parameters of creaturely reality through the incarnate Word.¹⁵⁷ In his secondary objectivity, God gives himself to be known by humans in human modes of thought and speech, using the ‘media of creaturely and earthly forms’ as the means of self-communication.¹⁵⁸ By this Torrance held that our creaturely forms of reasoning are brought into relation with the divine objectivity: ‘God’s Word assumed and makes use of and comes to us through creaturely objectivity so that it is in and through that creaturely objectivity alone that we meet his divine objectivity’.¹⁵⁹ For this reason, it is within the creaturely objectivities that we must develop our knowledge of God.¹⁶⁰

The significance of this point is that it secures the place of creaturely modes of thought in the task of theology. On account of the fact that God has given himself be known in creaturely forms of thought and speech through his actual interaction with the created world, theology, if it is truly shaped by God’s self-revelation, will also consider the place of human modes of thought and speech to be integral.

since the Word of God by whom all things were made and continue to be upheld became incarnate within the contingent, rational structures of space and time, within which theological science and natural science alike pursue their inquiries, there must be a much closer connection between the concepts deployed by theological and natural science than is often realized, even when we take into account the necessary change in meaning that theological concepts involve in accordance with the nature of their divine Object.¹⁶¹

For this reason, theological concepts do not cease to make use of creaturely modes of thought, and therefore, theological concepts have some coordination with our experience of this world, but in such a way that their meaning is determined by reference to God.¹⁶²

The twofold objectivity of God and the irreducibility of the place of creaturely objectivity in theology protect the place of the human subject in the knowledge of God.

¹⁵⁷ Torrance, *TS*, 136. Barth, *CD*, II/1, 16.

¹⁵⁸ Torrance, *TS*, 136.

¹⁵⁹ Torrance, *TS*, 137.

¹⁶⁰ Torrance, *RST*, 64.

¹⁶¹ Torrance, *RET*, 34.

¹⁶² Torrance, *RST*, 70.

The human knower is bound to God's self-revelation through Jesus Christ, but for Torrance this does not obviate the place of the human knower.¹⁶³ The place of the human subject under the determination of God's self-revelation is well described through Torrance's notion of fluid axiomatic dogmatics.¹⁶⁴ Through this slightly clunky phrase, Torrance identified a theological procedure in which axioms are the basis of inference, and sought to cut away the association to their *a priori* status. This is evident by the connection to dogmatics, which Torrance referred to as the positive knowledge of God directed by revelation.¹⁶⁵ Also, this is the significance of the adjective 'fluid', for these are not static axioms, but axioms that are demanded by the nature of reality and may be liable to alteration as our insight into reality develops.

Importantly, these inferential chains are not themselves wholly free activities of the human knower. Rather, the inferential connections drawn between axioms are shaped by our fundamental beliefs regarding God to unify and simplify the body of experiential knowing into conceptual models. For this reason, Torrance's notion of axiomatic dogmatics relies fundamentally on an intuitive movement of thought where subsidiary awareness of God acts as a pointer to his reality, guiding subsequent inquiry.¹⁶⁶ From this pre-logical basis, theology may begin to develop the cognitive instruments and rational frame through which God's self-revelation is cognized.¹⁶⁷ The Church is the essential context in which this shaping of human cognition takes place, for it is in the fellowship of the worshipping people of God, in the reading of Scripture, that God's self-revelation is assimilated to our fundamental convictions (or ultimate beliefs) from which our

¹⁶³ Torrance, *TS*, 303-304.

¹⁶⁴ Torrance, *RST*, 93.

¹⁶⁵ Torrance, *RST*, 93.

¹⁶⁶ Torrance, *RST*, 84.

¹⁶⁷ Torrance, *RST*, 84.

subsequent inquiry takes its shape.¹⁶⁸ It is from this constant coordination with this intuitive foundation that the conceptual systems of theology are developed, and it is the task of theological science to simplify this every day experience through identifying what connects them in a theory that will facilitate further unfolding of God's self-revelation,¹⁶⁹ 'bringing to light its inner logic'.¹⁷⁰

This notion of fluid axiomatic dogmatics is connected to Torrance's affirmation regarding the dialogical nature of theology. God freely reveals himself to humanity and so establishes humanity in the position of reciprocity as the subjects of the knowledge of God;¹⁷¹ the object of theology is a personal being who establishes a dialogical relation to humanity as subject.¹⁷² The significance of this is that theology must operate within a dialogical relation to its object, and as part of a community of persons that are communally established as the subjects of theology.¹⁷³ In this sense, Torrance described theology as a 'conversation between God and his people'.¹⁷⁴ It might be objected, as Thiemann has, that this dialogical inter-relation between God and the Church is one of mutual counter-influence. However, it is important not to separate this dialogical element from the fact that Torrance has established the human side as dependent upon the grace of God, and therefore only conducted in constant contact with God's self-revelation.¹⁷⁵ Moreover, if humanity is the subjective foundation of theology, it is only in a secondary sense, established within the primary subjective foundation which is God's act within and on behalf of humanity in the person of Jesus Christ.

¹⁶⁸ Torrance, *RST*, 84-85.

¹⁶⁹ Torrance, *RST*, 85.

¹⁷⁰ Torrance, *RST*, 86.

¹⁷¹ Torrance, *TS*, 307-308.

¹⁷² Torrance, *TS*, 133.

¹⁷³ Torrance, *TS*, 134-135.

¹⁷⁴ Torrance, *TS*, 135.

¹⁷⁵ Torrance, *TS*, 134.

The issue Torrance was driving at is the total priority of the grace of God in the knowledge of God held alongside the retention of actual creaturely modes of objectivity through which God's self-revelation is cognized. The protection, and the shaping, of our creaturely ways of thought in theology is a function of the centrality of Jesus Christ as 'the self-objectification of God for us in our humanity'.¹⁷⁶ Importantly, Jesus is identified as the norm of theology, but in such a way that the place of logical formalization in theology is not obviated. The sort of relationship Torrance described is the same as that which has been found between the actual connections in reality and the systematic connections in our conceptual system explored in Chapter Three: 'the order is in the Object before it is in our minds, and therefore it is as we allow the Object to impose itself upon our minds that our knowledge of it gains coherence'.¹⁷⁷ In theology, that object is Jesus Christ, and so theology involves the determination of the rational structure of our conceptual systems by Jesus, and it is in the 'correspondence to [Jesus] that theological coherence grows'.¹⁷⁸ In this way, Torrance articulated an approach to theology in which the human rational structure of our conceptual system is essential, but not finally self-explaining.

The other way Torrance approached this was through the problem of *Theologic*: how do we relate the rational structure of our thought to God in his self-revelation?¹⁷⁹ Very significantly, Torrance's proposal to the problem of *Theologic* was established on the hypostatic union. The relationship of the divine nature and human nature in the person of Jesus Christ is normative for the relationship of human logic and divine truth.

¹⁷⁶ Torrance, *TS*, 137.

¹⁷⁷ Torrance, *TS*, 138.

¹⁷⁸ Torrance, *TS*, 138.

¹⁷⁹ Torrance, *TS*, 205.

It is this relationship within the Person of Christ between His divine and human natures (called the *hypostatic union*) that provides the normative relationship for every theological statement where the relationship between God and man is involved. Thus whenever our knowledge of the Truth is properly ordered it will reveal a structure in its material content that reflects the Christological pattern of the hypostatic union.¹⁸⁰

Torrance's point is that the hypostatic union is the normative basis upon which to establish the relationship between creaturely objectivity and divine revelation. Just as the human nature and the divine nature retain their discrete natures and yet they are united in the one person of Jesus Christ, so also creaturely objectivity and divine revelation retain their discrete identities but are united in the one composite structure of theological science: 'the fact that there is no fusion [between the natures] means that there is no ontologism (*analogia entis*) between the human reason and God's being'.¹⁸¹ However, this synthetic structure requires nuance: just as the human nature of Jesus Christ is wholly dependent upon being assumed by the divine nature, so also the creaturely objectivity of theology is wholly dependent upon God's gracious self-revelation.

Torrance articulated this very clearly in the following important discussion of the implications of the twin doctrines of *anhypostasia* and *enhypostasia* for theological knowledge. In this discussion, Torrance identified exactly how the theological knowledge is structured in accordance to the person of Jesus.

Anhypostasia asserts the unconditional priority of Grace, that everything in theological knowledge derives from God's Grace, while all truths and their relations within our thinking must reflect the movement of Grace. But *enhypostasia* asserts that God's Grace acts only as Grace. God does not override us but makes us free. [...]. In this way He sets us on our feet as persons in personal relation with Him, affirming and recreating our humanity in communion with Him; [...]; He takes our cause upon Himself and makes provision for true response on our part as we are allowed to share in the human life and response of Jesus to the Father. Just as the doctrine of *enhypostasia* asserts the full unimpaired reality of the humanity of the historical Jesus as the humanity of the Son of God, so it affirms that in our theological knowledge full and unimpaired place for human decision, human response, and human thinking in relation to the Truth of God's Grace.¹⁸²

¹⁸⁰ Torrance, *TS*, 207; 'Place and Function', 39-40.

¹⁸¹ Torrance, 'Place and Function', 39.

¹⁸² Torrance, *TS*, 217-218.

Torrance established the hypostatic union as the normative basis of theological statements. The organizing principle at work here is the couplet *anhypostasia* and *enhypostasia*.

Anhypostasia means that aside from being assumed into union with the Son, the human nature of Christ is without actual, hypostatic existence.¹⁸³ The human nature of Jesus did not exist prior to the incarnation, and it is therefore entirely dependent upon the act of God. *Anhypostasia* thus insists upon the priority of God's grace and the dependence of creation upon God's grace. As Torrance explained above, *anhypostasia* 'asserts the unconditional priority of Grace'.

Enhypostasia refers to the actual hypostatic existence of the human nature having been assumed within the person of God the Son.¹⁸⁴ As such, the *enhypostasia* expresses the actuality of human existence within its dependence upon grace. In this connection, the *enhypostasia* has a double emphasis. First, the *enhypostasia* demonstrates that the human nature of Jesus is completely human and retains its integrity as wholly human.¹⁸⁵ Through being brought into existence via assumption by God the Son, the human nature has not undergone any change or confusion. Instead, the human nature retains its discrete humanity, uncompromised by its dependence upon being assumed into the divine Son. Second, this completely human nature has its concrete existence only in the person of God the Son.¹⁸⁶ Therefore, the *enhypostasia* recognizes the priority of God's grace, but also that this grace does not overwhelm creation, but is rather the context of its discrete existence.

¹⁸³ Torrance, *Incarnation*, 84, 229; 'The Atonement and the Oneness of the Church', 259.

¹⁸⁴ Torrance, *Incarnation*, 84, 229; 'The Atonement and the Oneness of the Church', 259.

¹⁸⁵ Torrance, *Incarnation*, 230.

¹⁸⁶ Torrance, *Incarnation*, 229.

So far as Torrance was concerned, the ‘two-fold truth of the doctrine of *anhypostasia* and *enhypostasia* is what we have to keep clearly in mind in thinking out the interior logic of theological thought’.¹⁸⁷ Held in this connection, theological thought is utterly dependent upon God’s gracious self-revelation, but does not abort the place of human reason in the knowledge of God. In this way, the relation of the divine nature and human nature described by the couplet of *anhypostasia* and *enhypostasia* provides the normative framework for theological knowledge where the priority of divine grace and the integrity and actuality of human thought are held together. It is in just such a way that theology can proceed in a way that respects the two-fold objectivity of God’s self-revelation in Jesus Christ.

Despite insisting upon the retention of our creaturely modes of thought and speech in theology and substantiating it with reference to Christology, it must be acknowledged that Torrance was aware of the dangers of establishing humanity in a position of reciprocity as the knowers of God.

this is also the point of danger, for since the human subject is given his full place in this reciprocity he is constantly tempted to arrogate to himself a creative role by adapting the object of his knowledge to the modes of his own subjectivity and thus obtrude himself unwarrantably into its material content.¹⁸⁸

Torrance was keenly aware that the dialogical relation of God and humanity in the knowledge of God is problematic as well as necessary. For this reason, Torrance’s awareness of the requirement of dialogical reciprocity for objectivity alongside the problem of autonomy needs to be supplemented with another aspect of Torrance’s Christology: the vicarious humanity of Jesus. Jesus Christ as both God and man is both the revelation of God to humanity and the obedient, faithful response of humanity to God

¹⁸⁷ Torrance, *TS*, 218.

¹⁸⁸ Torrance, *TS*, 309.

through whom God's self-revelation is received in our humanity.¹⁸⁹ For this reason, the assimilation of revelation to human ways of thinking is already included as part of the revelatory event.¹⁹⁰

4.2. Theological Science: the Synthesis of Natural Theology and Revealed Theology

Theological science is the composite of NT as rational structure and revealed theology as the material content of theology. In the context of a discussion regarding the transition of NT from an autonomous rational structure, Torrance described the integration of NT and revealed theology in 'one bipolar structure of knowledge', which constitutes theological science.

All this [the problems of autonomous NT] *must* change, however, as soon as there takes place a transition from a dualist to a unitary way of thinking which calls for the integration of natural and positive theology within one bipolar structure of knowledge. The bringing of these two together in this way, the knitting together of epistemological structure and material content, yields what we are bound to call "theological science" that is not *scientia formalis* or formal science in the scholastic sense, but a *scientia realis* or real science, the science of God and of God in his interaction with the world of space and time.¹⁹¹

The reference to a transition from a 'dualist' and 'unitary' way of thinking means a transition from a dualistic imposition of a rational structure upon what is experienced (i.e. an artificial relation of rational structure and material content) to a unitary approach in which the rational structure is integrated with the material content and so determined by reality. Theological science is constituted by the synthesis of NT and revealed theology as one bipolar structure. This means that the rational structure of human knowing is brought within the body of revealed theology as the rational intra-structure of theology. Torrance described the formal aspect of this synthesis as the synthesis of epistemological structure

¹⁸⁹ Torrance, *Reconstruction*, 129-130; *Incarnation*, 126; *Mediation*, 17. See, Molnar, 'The Obedience of the Son', 54; K.P. Seng, 'The Concept of the Vicarious Humanity of Christ in the Theology of Thomas F. Torrance', PhD, University of Aberdeen, 1983, 339-348; Kruger, 'Participation in the Self-Knowledge', 109-114, 122-123, 133-153; Chung, *Mediations and Revelation*, 27ff; Colyer, *How to Read*, 81-84, 102-104.

¹⁹⁰ Torrance, *Reconstruction*, 131; *Incarnation*, 114-129.

¹⁹¹ Torrance, *RST*, 65-66; *TCFK*, 282.

and material content. That is, the shaping of the structure of our conceptual relations by the actual encounter with reality, such that ‘conceptual relations are developed as expressions of real relations in the universe’.¹⁹² It is precisely this synthesis that is suitable for theological science, which owing to the demands of its own object must have a valid place for human reasoning in such a way that our rational structure is positively shaped by God’s self-revelation.

What Torrance described is the same formal structure as that which obtains between the logic of systematic form and the logic of empirical form. However, Torrance did not make this connection explicit, which has had the result of isolating Torrance’s proposals for NT from their natural network of meaning. In synthesis with their respective material contents, NT as rational intra-structure performs the same function in theology as the logic of systematic form in the problem of *ontologic*. Both NT and the logic of systematic form function as the rational intra-structure of human conceptual systems. As the rational intra-structure of NT does not *impose* cognizable form, but rather *exposes* the coherence that is nascent within reality.

It is in the same sense that the logic of systematic form is the necessary but insufficient condition of knowledge that NT is the necessary but insufficient condition of theological knowledge.¹⁹³ They are necessary in that each provides the cognitive framework and formal language through which knowledge of reality in its own antecedent coherence can be appropriated by humanity. They are insufficient in that neither facilitates actual knowledge aside from their respective material contents. Also, alongside the logic of systematic form in relation to the logic of empirical form, NT is the

¹⁹² Torrance, *RST*, 66-67.

¹⁹³ Torrance, *RST*, 41.

means through which the inherent coherence in the material content of revealed theology is drawn out and articulated.¹⁹⁴

However, as Torrance's argumentation continues and he begins to identify exactly *how* the actual structure of God's self-revelation shapes the rational structure of our theological knowledge, the terminology 'natural theology' begins to fade, and Torrance explained his meaning in terms of formal relations again, identifying the rational structure of thought taking its shape and truth from the antecedent truth of being.¹⁹⁵ Here the force of Torrance's attempt is shown to be the attempt to establish the place of the human rational structure in theology under the determination of God's self-revelation. NT as the division in theology where the rational structure of human thought has acted as the distorting extra-structure has become the locus in which the rational structure of human knowing is not obviated, but rather is determined by the material content of God's self-revelation. Having thus re-set the relationship of rational structure and material content through his reconfiguration of NT, Torrance positively described what is in view through his work on the doctrine of the Trinity.

5.0. The Trinitarian Structure of Theology

Fundamental to Torrance's approach to the doctrine of the Trinity is that the trinitarian structure of the Christian doctrine of God is determined by God's actual triune relations. This is the actualization in theology of the proper synthesis of rational structure and material content that Torrance sought to accomplish through his work on NT. Moreover, this is the step at which Torrance completed his attempted development beyond Barth in describing how it is truly we who are doing the knowing as the rational structure of our understanding is the necessary counterpart through which theological knowledge is

¹⁹⁴ Torrance, *RST*, 39-40.

¹⁹⁵ Torrance, *RST*, 131-159.

actualized, because the rational structure of our understanding is determined in accordance with the trinitarian structure of God's self-revelation.

Torrance considered the task of dogmatic theology to be to bring the rational structure of human thought into conformity with the inner structure of God's self-revelation.¹⁹⁶ As such, dogmatic theology is concerned to 'unfold the objective content of revelation',¹⁹⁷ through developing conceptual structures that have 'an inner structural coherence reflecting the nature of the object'.¹⁹⁸ In this connection, Torrance argued that the doctrine of the Trinity should be understood in the context of scientific conceptual representations which derive their logical form not from the activity of the epistemic subject, but rather from the relations and connections in reality itself.¹⁹⁹ That is to say, through God's self-revelation, the internal relations of the triune God determine the conceptual structure of human theology.²⁰⁰

The trinitarian structure of our knowledge of God is not something that can be inferred from what we may claim to know already, nor can it be logically developed out of prior patterns of thought, but new trinitarian elements can be assimilated into our knowledge through a profound reconstruction which gives knowledge of God a depth and fullness correlated with our experience which it did not have before. Here our rational understanding takes on the imprint of what it comes to know and so yields to the Trinity of God's self-communication as Father, Son and Holy Spirit, a structure in the mind that faithfully answers to it. This is natural, for the knowledge of God requires for its actualisation an appropriate rational structure in our cognising of him, but that is not, and cannot be, an autonomous rational structure developed independently on the ground of "nature alone" or apart from the active self-disclosure of God. Rather does it arise under the pressure of the intelligible content of God's articulate self-revelation to realise itself in our faith and understanding, and only as we allow our minds to fall under the compulsion of God's being who he really is in the specific acts of his revelation to us in space and time²⁰¹

Torrance's point is that theology takes a trinitarian structure because it is patterned in accordance to God's self-revelation as triune. Importantly, Torrance suggested that our knowledge of God 'requires' an *a posteriori* rational structure through which God's self-

¹⁹⁶ Torrance, *Reconstruction*, 146-147.

¹⁹⁷ Torrance, *Reconstruction*, 147.

¹⁹⁸ Torrance, *Reconstruction*, 148.

¹⁹⁹ Torrance, *RST*, 160.

²⁰⁰ Torrance, *RST*, 161.

²⁰¹ Torrance, *RST*, 164.

revelation is cognized, as the threefold structure of God's self-revelation impresses itself upon the human mind.²⁰² So far as Torrance is concerned, then, the conceptual model of the Trinity does not have any prescriptive force, and it is not a convenient arrangement of the data of revelation. Instead, it is the coordination of the structure of human thought with the antecedent and actual connections of the triune God through God's self-revelation.

What is described is the coordination 'between the intelligible features inherent in the object known and corresponding modifications in the understanding of the knowing subject, within which an appropriate rational structure emerges'.²⁰³ It is in this modification of the epistemic subject in accordance to the triune being of God that the 'subjective pole may not be a sufficient condition for knowledge but it is certainly a necessary condition',²⁰⁴ in exactly the same way that NT and the logic of systematic form are necessary but insufficient.

The spot-light of examination must be concentrated upon the rational structure of the understanding that arises in actual knowledge of God so that it may be methodologically "isolated" or thrown into explicit relief in the light of the divine reality which evokes and conditions it and which it is enabled to reflect as its object. This must not be taken to imply that the rational structure in question can be disengaged from the actual relationship of knowledge between God and ourselves, as if it could have a validity of its own quite irrespective of any objective reference or content, for it could be no more than a merely formal, empty conceptual husk. On the other hand, if we accept that in actual knowledge there is, and must be, a real relation between God as he is known and our knowing of him, this must not be taken to imply that the rational structure that arises in our human knowing has any prescriptive force. Far from holding that God must submit to the necessity of our human conceptions taken up in that rational structure, we must recognise that as the controlling reality who conditions the rational structure in our knowledge of him, God is himself the source of the necessity in the human conceptions employed in it.²⁰⁵

The trinitarian rational structure of theology which is determined by the material content of the trinitarian structure of God's self-revelation is that which Torrance referred to by identifying NT as the intra-structure of theological science. Torrance's notion of

²⁰² Torrance, *RST*, 164.

²⁰³ Torrance, *RST*, 164.

²⁰⁴ Torrance, *RST*, 165.

²⁰⁵ Torrance, *RST*, 165.

theological science was found to involve the proper relation between the God in his self-revelation and NT as the human rational structure through which that is cognized. So now, with respect to the doctrine of the Trinity, the necessary rational structure is shaped by the trinitarian structure of God's self-revelation.

6.0. Evaluation

The agenda of Torrance's NT is to describe how the rational structure of our understanding of God and the universe is determined by the antecedent structure of God's self-revelation, which itself is determined by the actual relations of God's triune Being. Underlying this attempt are two tensions.

- (i) Torrance's assessment of autonomous formulations of NT as the antecedent schema from which revelation was understood, distorting revealed theology.
- (ii) Torrance's assessment that Barth did not satisfactorily account for the human, rational counterpart in theological knowing.

Accordingly, Torrance's NT is the attempt to demonstrate how the grace of God in his self-revelation does not obviate the resources of nature in theological knowing, but actually transforms the natural rational activity of humanity such that through our creaturely conceptuality, the knowledge of God is actualized. In doing this, it was not Torrance's intent to contradict Barth's rejection of autonomous NT, but rather to carry forward fundamental principles such as the priority of God's grace and the exclusivity of Christological revelation for the knowledge of God and to bring into this network of theological convictions the necessity for a creaturely, rational correlate through which God's self-revelation is cognized by humanity.

The way Torrance attempted this was by inverting the way in which autonomous formulations of NT held the rational structure of human understanding and the material content of God's self-revelation in relation. Instead of a rational system of theistic argumentation acting as the foundation for revealed theology, through which revealed theology was distorted in relation to that preliminary orientation, the rational structure of human thought is brought within revealed theology and determined in accordance with the structure of God's self-revelation. With reference to the classical loci of NT this is within a small frame of reference as the rational structure of theistic argumentation takes its determinative point of reference from revelation. However, as this is brought into intersection with the notion of the epistemological structure of the knowledge of God, Torrance inverted the force of 'natural' in NT: it is not the knowledge of God aside from religious presuppositions, but rather about the objective determination of the rational structure of our understanding such that our knowledge of God is in accordance with the nature of God's self-revelation. In coordinating this with revealed theology to form one synthetic structure that constitutes theological science, Torrance has outlined a theological approach in which the human rational structure of understanding is brought into coordination with God's actual self-revelation such that the actual structure of our knowledge might be shaped by God's self-revelation.

It may be objected that Torrance has established human rationality as a necessary correlate (or subjective foundation) to revelation (the objective foundation) and so has surrendered the unique necessity and priority of grace 'as the sole determinant of our knowledge of God'.²⁰⁶ Further, it could be objected that in so doing, Torrance has imported an illicit anthropocentric ingredient into theology, and established the efficacy

²⁰⁶ Molnar, *Theologian*, 326.

of revelation upon some innate human capacity to receive it, which is fundamentally inconsistent with the rest of his theological method.

With respect to Torrance's treatment of the cosmological argument in particular, this criticism has some traction. Torrance's cosmological argument takes the form of an inferential argument established upon a basic proposition derived from revelation. God's self-revelation as Creator is distilled into a proposition about the status of creation, and so loses the personal force which is essential to the shaping of the mind of the human subject in accordance to the truth of being of the object. In this, Torrance's cosmological argument takes the form of 'causally imposed knowledge',²⁰⁷ which is the endowment of true propositions which form the basis of an inferential argument concerning the qualities of the created universe. The problem is that while this inferential argument may be connected to revelation at key points, it is making inferences from a coordinate system that itself is aside from revelation. In this, it could be understood as a revelatory-propositional form of foundationalism. There is not the same objective determination of the very pattern of human thought in this sense of Torrance's NT, which leaves it vulnerable to the accusation of counter-influence between the subject and the object. However, despite being flawed in this way, Torrance's cosmological argument does not claim to attain positive knowledge of God, and is conceptually isolated by Torrance, and so this methodological concern does not bleed through into Torrance's broader theological method.

Going forwards, the chief contribution of Torrance's cosmological argument should be considered at the formal level, of describing the appropriate relation of rational structure and material content. Polemically, it is significant as this has been achieved in

²⁰⁷ Thiemann, *Revelation*, 140-141.

the division of theology in which the rational structure of humanity has exercised dominion over revealed theology.

There is also a problem with Torrance's failure to carry his reconstruction of NT more forcefully into his positive dogmatics, regarding the determination of the rational structure of our understanding in accordance with the trinitarian structure of God's self-revelation. This has allowed Torrance's NT to be limited within its frame of reference that pertains to the inversion of the rational structure and material content of the classical loci of NT (i.e. the cosmological and ontological arguments).

There is also a problem in that Torrance did not bring his proposal for NT into connection with his Christology, particularly his emphasis on the vicarious humanity of Jesus as the obedient recipient of revelation. The synthesis of rational structure and material content must take place within a conscious agent. Torrance's Christology is well placed to describe that this determination of the rational structure of human thought by God's self-revelation has taken place in the person of Jesus Christ, where the knowledge of God is actualized within our humanity and in our creaturely ways of knowing. This must likewise be held in connection to the epistemological relevance of the Spirit through whom humanity more generally are enabled to be the knowers of God and also to Torrance's notion of the deposit of faith, in which humanity more broadly participate in Jesus' knowledge of God. There is important work to be done on integrating these disparate elements of Torrance's thought.

There are problems with Torrance's appropriation and adaptation of Bouillard's terminology. This is raised again as it is this point that could be taken as substantiating the criticism that Torrance has compromised the priority of God's act through positing the human knower as the necessary correlate of revelation. Torrance, like Bouillard,

stressed that it is we humans who do the knowing and therefore God's self-revelation requires a corresponding rational structure in our understanding through which cognition takes place. However, in not being wholly explicit about the differences between himself and Bouillard on what terms human rationality is the correlate to revelation, Torrance has left himself open to the accusation that he has established the human knower in a position of mutual counter-influence over and against God's self-revelation in the knowledge of God. That is to say, that the knowledge of God is actualized in our human understanding only as it is filtered through our natural capacity to be the knowers of God, rather than established on the fact that God's self-revelation transforms the rational structure of our understanding which establishes humanity as the knowers of God.

The force of this criticism is tempered by three factors. First, Torrance's NT must be understood in the intellectual context of the synthesis of rational structure and material content. In this synthesis, the subject is certainly involved in the knowing event, but not in such a way the subject exerts mutual counter-influence upon its object. Rather, the subjective element is characterized by the adaptation of the subject under the compelling power of the object.

Second, Torrance's recognition of the need to account for the creaturely correlate in theological knowing is established on the theological girders of God's twofold objectivity and two-nature Christology. Therefore, Torrance's view that theological knowledge requires creaturely conceptuality was not reached arbitrarily but was itself determined by revelation.

Third, Torrance's engagement with Bouillard comes in the context of the implications of the doctrine of justification by faith on theological epistemology.²⁰⁸ The

²⁰⁸ Torrance, *KBBET*, 155-156.

point of justification is that humanity does not have truth or rightness inherently, but that this must be granted by the grace of God as a gift to be received by faith.²⁰⁹ Therefore, humanity are not naturally the subjective correlate to the knowledge of God, but must be established as such by the grace of God, as Molnar rightly points out.²¹⁰ However, justification by faith does not only exclude autonomous NT (as well as it excludes self-justification) but provides the proper context from which NT may be practiced: ‘grace does not destroy nature, but perfects or completes it’.²¹¹ Torrance’s point is that God’s grace has a dynamic impact on the creature. Through establishing humanity as the knowers of God by his gracious self-revelation actualized in the person of Jesus to whom humanity are joined by the Spirit, creaturely rationality is *altered*, and brought into accordance with God’s self-revelation, such that it can be the correlate partner through which God’s self-revelation is cognized.²¹² It is in this connection that Torrance criticized Bouillard for conceiving of the subjective condition of theology as the natural capacity of humanity in static terms, and insists upon establishing the readiness of humanity for God on the prior and enabling readiness of God for humanity.²¹³ However, it might be objected that in seeking to account for the subjective, human element of theology in this way, Torrance has reduced theology to a scientific form of knowing, and therefore is exhausted by structural correspondence, bracketing off from the purview of the human response to revelation other expressions of knowing, potentially obscuring the place of narrative, music and art in Christian spirituality.

²⁰⁹ Torrance, *GR*, 66-67.

²¹⁰ Molnar, *Theologian*, 327.

²¹¹ Torrance, *KBET*, 155.

²¹² Torrance, *KBET*, 156.

²¹³ Torrance, *KBET*, 157-158.

CONCLUSION

The synthesis of rational structure and material content articulated in Torrance's syntacto-semantic approach provides the necessary intellectual context from which to understand Torrance's NT. This approach has opened up new perspectives on Torrance's NT and the ways in which Torrance attempted to address the problem of the proper relation of rational structure and material content in theology.

The first part of this thesis was devoted to an examination of the intellectual context which forms the vital background against which Torrance's NT can be properly understood. The synthesis of the rational structure of our knowledge and the material content is based on a unitary conception of reality. It has been found that Torrance's conception of reality was characterized by a nexus of ideas, which can broadly be described as realist. It is this fundamental connection between the orderly structure of reality and reality as it appears to the observer that is the kernel of Torrance's presentation of knowledge as an organic synthesis between rational structure and material content, by which the nature of reality might determine human conceptual representations.

The basic shape of Torrance's synthesis of rational structure and material content was introduced through Torrance's understanding of objectivity. To Torrance, to think objectively involves the proper integration of the empirical and the theoretical components of human knowledge. It is crucial to appreciate the distinction between the organic synthesis in Torrance's epistemology and the artificial synthesis of object-making thought. For Torrance, the integration of the theoretical and the empirical components of knowledge in truly objective thought has two perspectives: (i) the determination of our theoretical representations by the actual structure of reality; (ii) the formulation of

ultimate beliefs which are normative over subsequent inquiry into reality. Through this, Torrance sought to retain the critically important subjective element of true objectivity.

This synthesis of rational structure and material content is given its most sophisticated articulation in Torrance's description of the synthesis of the logic of systematic form and the logic of empirical form. While Torrance was critical of symbolic logic owing to what he perceived to be the prioritization of formal relations over an actual connection to reality, he still held symbolic logic to be uniquely capable of developing discursive systems of great precision and sophistication. Accordingly, Torrance saw a valid function for an attenuated formal logic. In this way, the scope of logical structure is shaped by the intelligible relations in reality, and the function is to facilitate the further disclosure of that ontic order.

There are two important points of contact between the synthesis of rational structure and material content of knowledge and Torrance's NT.

First, Torrance applied the same basic syntacto-semantic procedure to his procedure for logical formalization in theology. As with other disciplines, theology must have its own logical machinery through which its own distinctive object is cognized and through which that knowledge is codified. Accordingly, Torrance proposed a theological calculus, a formalized theological language through which to increasingly unfold the inherent meaning of God's self-revelation. In this way, Torrance argued that theology must have a satisfactory response to the problem of *Theologic*, and account for the way in which the actual structure in reality shapes the rational structure of our conceptual representations.

Second, Torrance's proportional analogy between the relation of NT and revealed theology and the relation of practical geometry and physics is the vital bridge between

Torrance's NT and its intellectual context. These relationships bear the same formal structure of the renunciation of idealized rational structures in favour of a rational structure determined by the actual connections in reality. In positing this analogy, Torrance bound his work on NT to his broader epistemological convictions regarding the priority of actual knowledge of reality which shapes a corresponding rational structure in the concepts of the epistemic subject such that reality might be known as it is in itself. By approaching this analogy from its pertinent intellectual context, this analysis has been able to overcome shortcomings in Torrance's use of the analogy and identify how it may be put to use in understanding Torrance's version of NT.

Through these points of contact, Torrance's NT is comprehensible: NT is the rational intra-structure of theology which is the very structure of our theological knowledge that is shaped by the actual structure of God's self-revelation, through which God's self-revelation is cognized. An important aspect of this is Torrance's rejection of autonomous NT, which is both consistent with and attempts to develop beyond the precedent set in Barth. From Barth, Torrance isolated autonomy as the problem of NT, and that NT can obscure the priority of grace and undermine the proper objectivity of theological knowledge by establishing knowledge of God on that which is ontologically discontinuous with God. However, Torrance also develops Barth's critique, questioning the scientific validity of NT, implicitly coordinating Barth's rejection of NT to Barth's position *contra* Scholz. In this way, Torrance shifted the ground of the rejection of autonomous NT onto matters of theological epistemology, and specifically onto the problem of the relation between rational structure and material content, where NT is associated with a preliminary rational structure that distorts revealed theology. This is represented also in Torrance's own rejection of autonomous NT which places the emphasis on the capacity of NT as a *preambula fidei* to distort the actual knowledge of

God through his self-revelation in a way that parallels Torrance's assessment of object-making modes of thought.

In this, Torrance set the trajectory for NT's reconstruction as the actualization of a human rational structure which is shaped by God's self-revelation. This is cast in the context of the relationship of grace and nature, where grace does not obviate natural knowledge of God, but rather enables our creaturely conceptuality to be the means through which we cognize God self-revelation within our creaturely reality. The tension underlying Torrance's proposal is his implied criticism that Barth did not satisfactorily account for the fact that God is known *by us*. That is, Barth did not describe how the objective structure of God's self-revelation determines the rational structure of our understanding. For Torrance, this is bound indissolubly to the problem of NT. In rejecting autonomous NT, Torrance understood Barth to have rejected the autonomy of the rational structure of understanding. However, it is not the necessity of the rational structure that is the problem, but rather its autonomous character. The attempt of NT to establish a rational structure through which to cognize is legitimate. The problem is when the rational structure is developed aside from the material content of revelation and then held as an idealized structure in accordance with which God's self-revelation is subsequently cognized.

In his reconstruction of NT, Torrance outlined a vision for theological rationality that evidences a relationship between nature and grace in which nature is remains an important aspect of theological knowing, but only on account of its being enabled by the gracious act of God. The rational structure of our understanding remains creaturely, but it is determined by the material content of the self-revelation of God. This is demonstrated first within the classical parameters of NT in Torrance's reconstruction of the cosmological and ontological arguments, in which Torrance brought the rational structure

of theistic argumentation within the boundaries of revealed theology by drawing the primary postulate from revelation. The fundamental openness of this NT to the material content of revelation is the criterion on which Torrance argued that NT has a future in a multi-levelled theological structure with NT as rational structure and revealed theology as material content constituting the synthesis that is theological science.

In effect, Torrance has appropriated NT as the division within theology in which he saw the improper relation of rational structure and material content to be well established, and has set about re-forming that relationship such that the rational structure of human knowledge does not impose intelligible form upon revelation, but exposes it. Torrance then unpacked this in connection with the doctrine of the Trinity, in which he gives a clear account of how the trinitarian structure of the material content of revelation gives trinitarian structure to our knowledge of God.

This angle of approach has yielded several fresh insights into Torrance's NT, which serve to inform our understanding of Torrance's theological contribution more broadly, and also to situate Torrance more precisely within his theological milieu.

First, Torrance's NT is understood as the rational intra-structure of theology in proportional correspondence to the logic of systematic form through the analogy to practical geometry and physics. In this way, NT is the rational structure of theology determined by the material content of God's self-revelation. In this connection, the rational structure of human knowledge is the necessary but insufficient condition of theology, which needs to be held in constant interaction with the material content of God's self-revelation which is the source of its actual orderliness.

Second, Torrance's NT is understood to be 'natural' in that it is wholly in accordance with the nature of God in his self-revelation. In this, Torrance's proposal for

NT should be understood as subversive in that it inverts the terms on which NT is considered to be natural. Usually, the ‘natural’ in NT can be taken to mean the knowledge of God accessible through the resources of nature. In Torrance’s NT, ‘natural’ pertains to a human, theological knowing that is formed in accordance with the nature of God’s self-revelation. In so doing, NT does not function as a preliminary rational substructure upon which knowledge of God is built, and so inverts the way in which Torrance understood autonomous NT to hold rational structure and material content together.

Third, Torrance’s NT provides an important resource in understanding Torrance’s proposal for theological science. Theological science is the synthesis of NT as rational structure and revealed theology as material content. This synthesis is in proportional correspondence to the synthesis of the logic of empirical form and the logic of systematic form, as demonstrated through the analogy to practical geometry and physics. Formally speaking, the relationship in view is the determination of the rational structure of human understanding by the material content of encounter with reality.

Fourth, Torrance’s NT is a vital resource in delineating how he understood the relationship between human reason and divine revelation in theological knowledge. This is a crucial point at which Torrance understood himself to be developing beyond the theological contribution of Barth. For Torrance, human rationality is essential to theological knowing, and so a proper emphasis on revelation and a rejection of autonomous human reason must not be conflated with a failure to properly account for the place of human reason in the task of theology. However, in continuity with the precedent of Barth, human reason has a valid place only under the determination of God’s self-revelation. This has been established in connection with the twofold objectivity of God, and also with the relationship between Christology (specifically the hypostatic union) and logical formalization in theology. In identifying NT as the rational intra-

structure of theology, Torrance accepted Barth's critique of autonomous NT as opposed to grace, but reconstructed NT so to demonstrate that a commitment to the priority of grace, the exclusivity of Christological revelation and the act of the Spirit in enabling humanity to be the knowers of God is consistent with the necessity that it is we humans who are doing the knowing.

Fifth, this angle of approach has assisted in situating Torrance's NT in relation to other Reformed considerations of NT. Torrance has taken a standard Reformed perspective on NT as valid only in dependence upon God's self-revelation and applied it in such a way that it addresses his assessment of the contemporary intellectual context, which is the necessity to hold together rational structure and material content such that the structure of our thought might be determined by the structure of reality.

There are some important issues that have not been fully developed or even addressed in this discussion, which with more space I would have considered more fully. In connection with these issues, there are some questions arising from this thesis which I recommend as being productive lines of future inquiry.

First, there is still a need to demonstrate and examine the implications of the correspondence between Torrance's stratified notion of reality and Torrance's stratified structure of knowledge, and consider how Torrance applied this stratified conceptuality to both general and theological knowing. Had such an analysis been possible within this thesis, I would have drawn out how the internal structure of reality determines the rational structure of our knowledge and highlighted that the same basic formal synthesis of rational structure and material content is at work in Torrance's general mode of rationality and in his composite structure of theological science. However, some preliminary comments have been made in this connection through the relationship

between stratification and the doctrine of the Trinity and the discussion of the distinction between general and special science, which is the formal division reflecting a stratified conceptuality.

Second, this thesis has argued that a core component of Torrance's mode of rationality is the synthesis of rational structure and material content in conscious reversal of the synthesis of the same proposed by Kant. This thesis has offered some trajectories for critique, but no extensive source-critical assessment of Torrance's interpretation of Kant has been attempted. The undertaking of this task is necessary in order to establish the traction and relevance of Torrance's mode of rationality and his reconstruction of NT more specifically.

Third, although some comments have been made on this through the thesis, the relationship between Torrance's NT and his holistic understanding of revelation remains in need of a far more detailed analysis. Such an analysis would need to draw together disparate elements of Torrance's work and evaluate their complementarity. It remains to be seen as to whether, in describing NT as a necessary but insufficient subjective condition for theology, Torrance has compromised the priority of God's actual revelation through the Son by the Spirit. The important factor in making this assessment is whether Torrance's NT can be integrated with his Christology. Of particular significance is the vicarious humanity of Jesus Christ assuming the human mind and receiving God's self-revelation as a human on behalf of humanity in powerful opposition to Apollinarian Christology. To remain consistent with this vicarious Christology the only way to identify human rational structure as the subjective condition of theology is to demonstrate that this is established first and foremost in Jesus Christ. Important here is Torrance's connection between Jesus' vicarious humanity and the reconciliation of the human mind to the truth of God. Following Irenaeus, Torrance held that at the incarnation, Jesus assumed the

totality of our human nature, including our alienated mind, and lived out the perfect human obedience to God.¹ In this connection, Jesus fulfils the objective self-revelation of God from the side of God and the subjective reception of that humanity from the side of humanity.² In other words, human theology is the participation in the perfect human knowledge of God, actualized in the person of Jesus Christ.³ This is reflected in Torrance's treatment of the apostolic tradition and the 'deposit of faith', as human thought is brought into accordance with God's self-revelation.⁴ In this connection, Torrance's NT as the rational intra-structure of theology requires careful consideration alongside Torrance's doctrine of apostolic succession and ecclesiology.

Fourth, this thesis has created a platform from which it can be seen that Torrance attempted to develop beyond the precedent of Barth on the question of the relationship between the human rational structure of theological knowledge and God's self-revelation. First and foremost, it needs to be ascertained whether Torrance was correct that Barth did not finally unite the objective revelation of God and the rationality of humanity. To my mind, particularly on Barth's insistence upon the parallel between the readiness of God and the subsequent readiness of man, this is by no means a settled point. This requires a full comparative and critical analysis. A potential line of inquiry would be to hold Torrance's concern that Barth did not wholly integrate human reason with the structure of divine revelation to Torrance's concern that divine agency and creaturely agency are held apart in Barth's baptismal theology.⁵

¹ T.F. Torrance, 'Epilogue: The Reconciliation of the Mind: : A Theological Meditation upon the Teaching of St Paul' in *Atonement: The Person and Work of Christ*, ed. R. Walker, Downers Grove: IVP Academic, 2009, 437-447, 437-447.

² Torrance, *Reconstruction*, 129-132; *Incarnation*, 126.

³ Torrance, *Reconstruction*, 134-140.

⁴ T.F. Torrance, 'The Deposit of Faith', *Scottish Journal of Theology* 36 (1983), 1-28.

⁵ Recently, McMaken has argued that Torrance's critique of Barth's baptismal theology is unfounded, attributing Torrance's misreading to fundamental differences at the level of ontology on

Fifth, hypothetically allowing for Torrance's criticism of Barth, it must be questioned (i) whether or not Torrance has successfully integrated human rationality and divine revelation in one synthetic structure of theological knowledge; (ii) that he has done so without compromising Barth's reasons for rejecting NT, and (iii) that he has done so without falling into inconsistency with his own theological method. I would suggest that the critical criterion is the viability of Torrance's attempt to establish the very structure of theological knowing upon the normative pattern of the person of Jesus Christ. The key point in Torrance's attempt to give the hypostatic union a position of normative influence over the structure of theology is that the human element is utterly dependent upon God the Son's action in assuming humanity to himself but yet retains its total and discrete integrity as fully human.

Sixth, in his attempt to delineate the relationship between human reason and divine revelation, a potentially fruitful line of future inquiry could be to examine the interface between Torrance's proposals for NT and the contemporary project of analytic theology. Analytic theology draws upon the techniques of analytic philosophy of religion to approach the task of theology.⁶ Rea prioritizes characteristics of analytic philosophy such as logical precision and clarity through the avoidance of metaphor, using well-understood concepts instead, aiming to provide true explanatory theories.⁷ In this connection, Lydia Schumacher's definition is instructive: analytic theology 'endeavours

account of which Torrance is unable to see the fundamentally unitive basis of Barth's Sacramentology. McMaken, 'Actualism', 21-25.

⁶ O.D. Crisp, 'Analytic Theology', *The Expository Times* 122 (2011), 469-477; 'On Analytic Theology', in *Analytic Theology: New Essays in the Philosophy of Theology*, ed. O.D. Crisp and M. C. Rea, Oxford: Oxford University Press, 2009, 32-53; K. Timpe, 'On Analytic Theology', *Scientia et Fides* 3.2 (2015), 9-22.

⁷ C. Rea, 'Introduction', *Analytic Theology: New Essays in the Philosophy of Theology*, eds. in O.D. Crisp and M.C. Rea, Oxford: Oxford University Press, 2009, 1-30, 7.

to apply the tools and methods of analytic philosophy in elucidating the coherence and rationality of theological doctrines'.⁸

The potential for the tools of analytic philosophy to be employed in this way is predicated on the dramatic transition in analytic philosophy. Wolterstorff identifies two significant developments: (i) the collapse of the positivistic criterion of verifiability (that propositions must be either analytically true or false, or empirically verifiable in order to be meaningful) such that theological propositions were no longer inevitably considered to be devoid of meaning; and (ii) the collapse of classical foundationalism such that belief did not have to be established on incorrigible certainty,⁹ as evinced in Plantinga's seminal essay 'Advice to Christian Philosophers', in which he argues that belief may be properly basic and thus it is legitimate for the philosopher to operate from theistic presuppositions without grounding them on a verifiable certitude.¹⁰

In this connection, Wolterstorff has identified this strand of contemporary analytic philosophy of religion as a form of Anselmian theology in that it treats belief as a valid starting point.¹¹ Likewise, Crisp has argued that analytic theology is 'a faith-seeking-understanding project, where "metaphysical" analysis is the means by which theologians make sense of what they already believe'.¹² In this sense, analytic theology involves

⁸ Schumacher, *Rationality as Virtue*, 5.

⁹ N. Wolterstorff, 'How Philosophical Theology Became Possible Within the Analytic Tradition of Philosophy', in *Analytic Theology: New Essays in the Philosophy of Theology*, eds. O.D Crisp and M.C. Rea, Oxford: Oxford University Press, 2009, 155-168, 156-157; W. Hasker, 'Analytic Philosophy of Religion', *The Oxford Handbook of Philosophy of Religion*, ed. W.J. Wainwright, Oxford: Oxford University Press, 2007, 421-443, 422-427.

¹⁰ Plantinga, 'Advice', 263-264. See also, Hasker, 'Analytic Philosophy of Religion', 427-431; Wolterstorff, 'Became Possible', 163-166; P.A. Macdonald, 'Analytic Theology: A Summary, Evaluation and Defence' *Modern Theology* 30.1 (2014) 34-61, 36-37.

¹¹ Wolterstorff, 'Became Possible', 166-168. See also, Macdonald, 'Analytic Theology', 38.

¹² Crisp, 'Analytic Theology', 51.

using the skills and resources of the analytic tradition so to facilitate cognition of God's self-revelation.¹³

within analytic theology the theologian will deploy the skills, resources and virtues of analytic philosophy in clarifying and arguing for the truth of the Christian Gospel as taken up in the great themes of the creeds of the Church.¹⁴

In a similar fashion, Macdonald has argued that analytic theology is the process of formalising that which is already known by faith.¹⁵

At first glance, there are points of compatibility between the burgeoning field of analytic theology and Torrance's work on NT. In both, human reason has a full and important role, without compromising the priority of revelation, drawing out the coherence that is already implicit within God's self-revelation.¹⁶ Torrance's language of developing a theological geometry in response to the material content of God's self-revelation constitutes a call for clear, logically precise forms of thought determined by the truth of God made known in Jesus. Some indication of this compatibility has recently been given in Alan Torrance's essay on the interconnections between Christology and analytic theology.¹⁷

Beyond appreciating points of compatibility, Torrance's NT may be brought to bear constructively on the project of analytic theology in as much as it may be applied to two important objections that have been made with regards to the project of analytic theology.

¹³ Crisp, 'Analytic Theology', 42. See also T. McCall, 'Theologians, Philosophers, and the Doctrine of the Trinity' in *Philosophical and Theological Essays on the Trinity*, eds. T. McCall and M.C. Rea, Oxford: Oxford University Press, 2010, 336-349, 337.

¹⁴ Abraham, 'Systematic Theology as Analytic Theology', 69.

¹⁵ Macdonald, 'Analytic Theology', 54-55, 58-59.

¹⁶ Crisp, 'On Analytic Theology', 42.

¹⁷ A. Torrance, 'Analytic Theology and the Reconciled Mind: The Significance of History', *Journal of Analytic Theology* 1.1 (2013), 30-44, 34-36.

First, it has been suggested that analytic theology's emphasis on logical precision is inconsistent with the mystery of God.¹⁸ Examples of analytic theology which draw such criticisms include Rea's suggestion that analytic theology shares affinities with onto-theology. Onto-theology suggests that through reason we can know exact truths about God,¹⁹ and so may be understood as having the tendency to treat God as an explanatory posit, making it possible for humanity to give ultimate explanations, and involving the tendency to theorize about God in a way that suggests that reason is a 'reliable tool for arriving at *clear* knowledge of God, so that reasoning about God can ultimately remove divine mystery'.²⁰ The implications of this view are well demonstrated in Crisp's ostensibly naïve understanding of truth: 'a proposition is true just in case it corresponds to a fact about the world to which it refers'.²¹

Macdonald has argued that analytic theology must retain a more nuanced attitude to truth in which the mystery of God is respected. In this connection, Macdonald recommends that analytic theology retain some elements of apophaticism. Without this, analytic theology may slip into a naïve correspondence theory of truth, which Macdonald suggests might result in idolatrous attitudes to its theoretical formulations.²² Macdonald, therefore, proposes an apophatic analytic theology.²³

Torrance's NT may potentially provide analytic theology with a different route to preserve the mystery of God alongside exactness in thought. Torrance's epistemological

¹⁸ Macdonald, 'Analytic Theology', 61.

¹⁹ C. Westphal, *Overcoming Onto-Theology: Toward a Postmodern Christian Faith*, Ashland: Fordham University Press, 2001, 6-7; 11,13, 18.

²⁰ Rea, 'Introduction', 9.

²¹ Crisp, 'On Analytic Theology', 49. R.D. Rauser, *Theology in Search of Foundations*, Oxford: Oxford University Press, 2009, 256.

²² Macdonald, 'Analytic Theology', 62; W.J. Abraham, 'Systematic Theology as Analytic Theology', *Analytic Theology: New Essays in the Philosophy of Theology*, ed. O.D. Crisp and M. C. Rea, Oxford: Oxford University Press, 2009, 55-69.

²³ Macdonald, 'Analytic Theology', 63. See also, S. Coakley, 'Dark Contemplation and Epistemic Transformation: The Analytic Theologian Meets Teresa of Ávila', in *Analytic Theology: Essays in the Philosophy of Theology*, eds. O.D. Crisp and M.C. Rea, Oxford: Oxford University Press, 2009, 280-312.

stance has a place for apophatic modes of thought, not as negation, but rather as epistemological reserve; reality *always* exceeds our conceptual formation,²⁴ because truth is primarily a feature of reality. Torrance's notion of disclosure models provides an understanding of conceptual representations which do not correspond,²⁵ but intend beyond themselves to that reality enabling increased disclosure of that reality. Torrance's more nuanced understanding of truth and the relation between concept and reality may provide analytic theology with a necessary corrective in relation to which its own thinking can be improved.

Second, van Fraasen has argued that the application of the analytic approach to theology is illegitimate. According to van Fraasen, the analytic approach is operational only through the generation of simulacra' (i.e. conceptual representations), which replace reality as the object of inquiry.²⁶ Within theology, van Fraasen argues, this inevitably leads to the construction of the abstract 'God', as an axiom of theological discursivity.²⁷ This is similar to Torrance's critique of autonomous formal logic of symbolic form. However, Torrance did not appeal for the end of discursive reason but its deliberate synthesis with intuition. Following this trajectory of thought, Torrance's approach may well provide analytic theology with a productive route beyond van Fraasen's criticisms through recognising that the logical connection exposed by valid inference is not devoid of an ontic correlate just because it is made by discursive reason, but rather the logical connection is an echo of the antecedent, ontological connection in reality itself. As has been argued, this is fundamentally the same pattern he described in theology, where the

²⁴ Torrance, *CDG*, 73.

²⁵ Achtemeier, 'Truth of Tradition', 363ff.

²⁶ B. van Fraasen, *The Empirical Stance*, New Haven: Yale University Press, 2002, 27-28. Rea, 'Introduction', 23.

²⁷ Fraasen, *Empirical*, 29-30.

inherent trinitarian pattern of God's self-revelation shapes the trinitarian structure of human theology.

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