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UNIVERSITY OF DURHAM

EPISTEMOLOGY AND AUTHORITY IN THE
THEOLOGY OF T. F. TORRANCE

A THESIS SUBMITTED TO THE
FACULTY OF ARTS
IN CANDIDACY FOR THE DEGREE OF
MASTER OF ARTS

DEPARTMENT OF THEOLOGY

BY

DAVID GEORGE BANNOCKS

SUBMITTED March 1994

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TABLE OF ACRONYMS

- BSCL T. F. Torrance (Ed), Belief in Science and The Christian Life, (Edinburgh, The Hansel Press 1980).
- CFM T. F. Torrance, The Christian Frame of Mind, (Colorado Springs, Helmers and Howard 1989).
- CTSC T. F. Torrance, Christian Theology and Scientific Culture, (Belfast, Christian Journals Ltd 1980).
- DCO T. F. Torrance, Divine and Contingent Order, (London, Oxford University Press 1981).
- EF T. F. Torrance, The Hermeneutics of Saint Athanasius in Ekklesistikos Faros Vol.52 (1970), pp.446-468, 89-106 and 237-249 and Vol.53 (1971), pp. 133-149.
- GAR T. F. Torrance, God and Rationality, (London, Oxford University Press 1971).
- GGT T. F. Torrance, The Ground and Grammar of Theology, (Charlottesville, University Press of Virginia 1980).
- HJC T. F. Torrance, The Hermeneutics of John Calvin, (Edinburgh, Scottish Academic Press 1988).
- JLPL T. F. Torrance, Juridical Law and Physical Law, (Edinburgh, Scottish Academic Press 1982).
- KBBET T. F. Torrance, Karl Barth, Biblical and Evangelical Theologian, (Edinburgh, T&T Clark 1990).
- RET T. F. Torrance, Reality and Evangelical Theology, (Philadelphia, The Westminster Press 1982).
- RST T. F. Torrance, Reality and Scientific Theology, (Edinburgh, Scottish Academic Press 1985).
- STI T. F. Torrance, Space Time and Incarnation, (London, Oxford University Press 1969).
- STR T. F. Torrance, Space Time and Resurrection, (Edinburgh, The Hansel Press 1976).
- TCFK T. F. Torrance, Transformation and Convergence in the Frame of Knowledge, (Belfast, Christian Journals Limited 1984).

- TS T. F. Torrance, Theological Science, (London, Oxford University Press 1969).
- WCCCA T. F. Torrance, When Christ Comes and Comes Again, (London, Hodder and Stoughton 1957).

ABSTRACT

David G. Bannocks.

EPISTEMOLOGY AND AUTHORITY IN THE
THEOLOGY OF T. F. TORRANCE.

Master of Arts

Submitted March 1994

This thesis aims to examine the complex issues in religious epistemology and authority. Inevitably, the thesis also discusses these subjects as they operate in non-theological areas. T. F. Torrance is a theologian who has much to say about these subjects and his position is both illuminating and refreshingly different. The thesis considers the ramifications of foundationalism and non-foundationalism in the pursuit of knowledge and Torrance's unique epistemological position is presented, clarified and assessed.

Torrance's understanding of language and the Incarnation, as pivots of his theology, are explained and examined. Issues concerning the relationship between faith and reason are discussed as are the problems of rigorous verification in systems of knowledge.

As "working models" of his theology, the thesis examines Torrance's approach to "natural theology", tradition, and scripture. As well as an assessment of Torrance's work, the thesis aims to point out where it presents the theologian with a way forward and also where the theologian needs to go beyond Torrance's vision of reality and how this should be attempted.

To Anne

INTRODUCTION

Certainly the twin subjects of authority and epistemology are at the heart of theology. Indeed it can be argued that they are at the heart of every field of learning. Rigorous thinking needs to be undertaken concerning authority and epistemology before anything can be studied, expressed or asserted.

Concerns over the nature of authority and epistemology are common today in many disciplines. In fact it would not be an exaggeration to say that many disciplines are experiencing nothing less than a major crisis in their philosophical sub-structures. The beginnings of this crisis date back essentially to the Enlightenment, when the old certainties of the scholastic, Greek mind were torn apart. Since that time the search for certainty, truth, and reality has become more and more of a priority as the ramifications of the Enlightenment have filtered down to the practitioners of the various fields of learning. "Post-modernism", that most ill-defined of movements, has been one of the latest attempts to articulate this new situation. Thus, many of the problems of epistemology and authority that beset the whole field of other disciplines, including science, are common to theology.



Philosophical questions concerning the very nature of reality, language, structures of knowledge and meaning very often seem irrelevant to the practitioners of various disciplines. A concern with "facts", "logic" and "common sense" often seems to overwhelm any appetite to examine more theoretical subjects. The result of this is that even the most distinguished thinkers of our day often practise their own disciplines without concern for, or knowledge of, the underlying philosophical and epistemological presuppositions that underpin their work and the way they think. This lack of desire to address these questions can be nothing short of dangerous where conclusions are reached on the basis of distorted epistemology and misuse of sources of authority.

Clearly today within the western Christian churches there are serious problems being encountered concerning theological decision making and church government on a scale that has not arisen since the Reformation. The Church of England is a perfect example of this. Within the last few years publications such as The Nature of Christian Belief[1], have been produced in response to a rejection by some of traditional understandings of such pivotal doctrines as the Virgin Birth and the Resurrection. With such basics being questioned, even by those within the church, it is not surprising that the recent debate in the General Synod over the measure to

ordain women to the Presbyterate was so confusing. Because there was no common epistemology and no common understanding of authority, a critical observer might say that non-theological arguments counted for more at the end of the day, on both sides of the debate. With large issues continuing to loom on the horizon, for example, the need to work out a coherent attitude to homosexuality, and the possibility of women in the Episcopate, the Church seems to be incapable of dealing with these issues adequately in a distinctively Christian, theological way.

These sorts of problems have arisen because of the development of western theology since the Enlightenment. The theological world has broadly split between those who allow post-enlightenment philosophical categories to control their theological methodology, and those who dogmatically try to pretend that the Enlightenment never happened, adhering to a fundamentalist and literalist approach to theology. In a church like the Church of England this has led to the reinforcement of "party spirit" and an adversarial approach to theological debate, with the result that either important issues are avoided or statements are made with such ambiguous wording that all parties are able to interpret them consistently with their own position. Since real theological decision making has reached such an impasse

often issues are decided on the basis of sociological, anthropological, political and other non-theological criteria.

It is essential therefore, that if the Church is to have any credible and distinctive voice in the modern world a new approach to authority, epistemology and theological decision making has to be found that transcends the old liberal and conservative labels.

It is concern over the state of modern theological debate that has led to the writing of this thesis and a sense of frustration that the only theological models on offer are those which again and again have failed either to produce anything distinctively Christian or have failed to have intellectual credibility.

It will be the contention of this thesis that the theological approach of the Scottish theologian T. F. Torrance offers at least a starting point from which the principles of a new theological consensus might be worked out.

This is a bold claim to make, but it will become clear that Torrance does put forward a refreshing and radically different approach. He is a theologian who addresses the really big issues of theology head on, in

a way that few others attempt to do. He is not afraid to face up to questions that others pretend do not exist or find inconvenient. Also, he is a theologian who has not simply restricted himself in a "blinkered" way to the world of theology. He understands that the malaise that affects theology is common to other fields of knowledge. He has a good knowledge of modern science and addresses questions in a uniquely inter-disciplinary way. This is a great strength, and gives his work relevance and import well beyond theology. This is not to say that his theology is without problems and we will attempt to point to these throughout and collate them in the conclusion.

It is true to say that Torrance has been much more appreciated in the United States than in Britain. Perhaps Torrance's strident and sweeping language is not easily appreciated by the British temperament. Certainly he does himself no favours at times. His arguments are often terse, difficult to follow and over complex, so that the broad sweep of his thinking is lost in the detail. His use of theological, philosophical, and scientific jargon goes way beyond what is required for accuracy and economy of language. If the reader is prepared to work through his difficult writing style however, what emerges is a theologian of great importance, who deserves much greater attention by

British theology in particular. This general lack of attention is illustrated by the absence of almost any secondary material on Torrance published in Britain and only a few more pieces published in the United States.

A major task of this thesis then, will be to present Torrance's epistemology in an organised and understandable way. His own work, distributed over many books and articles, is badly organised, mostly hard to understand and difficult to piece together. Our aim will be to present a consistent whole from his divergent utterances.

A further aim will be to clarify Torrance's position so that a properly critical appraisal of his work can be developed both in this thesis and by others. We will argue that some of those who have studied Torrance have largely misunderstood his real position. This has something to do with his difficult writing style and presentation, but perhaps more to do with the extreme subtlety of his theological stance. By considering the work of the American theologian R. F. Thiemann we will demonstrate how easy it is to misunderstand Torrance's basic position. This misunderstanding again accounts for his general lack of popularity in the theological world. His real position, is sophisticated and avoids many of

the naiveties that his critics accuse him of exhibiting. His position is far more compelling than many believe.

Throughout, we will also be attempting to point out how Torrance's methodology does point towards a way out of the fundamental blockages that have hampered theology in the modern world and to direct the reader to a theological position that enables him or her to make meaningful theological statements without falling into the naiveties of fundamentalism.

These then, are the broad aims of this thesis.

The thesis itself is divided into five chapters. The first introduces the subject of "foundationalism". This is an important place to begin, since it is on this subject that Torrance is most likely to be misunderstood and it is from an understanding of foundationalism that his sophisticated approach can be appreciated throughout the thesis. In the first chapter the question "is T. F. Torrance a foundationalist?" is asked. This is answered in a preliminary way only, since the question appears in various forms throughout the thesis and continues to be of importance.

The second chapter concerns Torrance's understanding of the Incarnation. It is this doctrine which for

Torrance holds the key to the fundamental problem that has dogged epistemology in general since the Enlightenment. Through it, Torrance is able to devise a theory of the nature of language that revolutionises our epistemological approach. The question of whether or not Jesus Christ operates as a foundational axiom is addressed.

Chapter Three essentially sets out the main substance of Torrance's position through a discussion of the relationship between faith and reason and the way in which Einsteinian physics has overthrown enlightenment categories. His position is presented as a unique form of "non-foundational realism".

At the end of Chapter Two the question of truth testing regarding the person of Jesus Christ is raised. Chapter Three, in reinforcing the fact that Torrance is a non-foundationalist, underlines the need for a study of the way in which Torrance tests truth and makes theological judgements in consistency with his overall theological position. This is provided in Chapter Four along with a model for truth testing in the churches that supersedes the old approaches of liberalism and fundamentalism.

The final chapter functions as the "working model" of all that has gone before. The subject tackled is how Torrance sees his approach to be put into practice in those areas of the Churches' life where Christians usually appeal to authority. Torrance's view of natural theology, tradition and scripture are explained, and it is demonstrated that Torrance does appear to suggest a new approach to scripture that supersedes the approaches of liberalism and fundamentalism.

The conclusion seeks to sum up what has gone before and to present an overall critical assessment of Torrance's work.

It must be stated before we proceed into the body of the thesis that the writer is not a scientist or indeed trained in any other discipline except theology. The references to scientific literature are made on this basis.

It has not been possible within the scope of this thesis to present a full picture of Torrance's theology, which is wide ranging. The aim has been to consider his general epistemology and his methodology specifically.

END NOTES

[1] House of Bishops of the General Synod of the Church of England, The Nature of Christian Belief, (London, Church House Publishing 1986).

Chapter 1

IS T.F.TORRANCE A FOUNDATIONALIST?

What is foundationalism?

Before attempting to answer the above question, a prior issue of what a foundationalist actually is must be addressed.

Foundationalism is a subject that until recently was rarely mentioned and little understood. At the same time it is of fundamental importance to natural science, philosophy and theology, indeed any discipline that seeks to make truth claims of any kind. Our specific concern is with the theologian for it is an issue that concerns theological method, the theological agenda and the value of theological conclusions; indeed it concerns the "truth value" of theology itself.

Because this issue is often not specifically addressed, theology regularly proceeds according to the rules and dictates of foundationalism unconsciously. Indeed it is often assumed in practice, that one may study a subject in some pure unfettered way without concern for epistemology or philosophy. The truth,

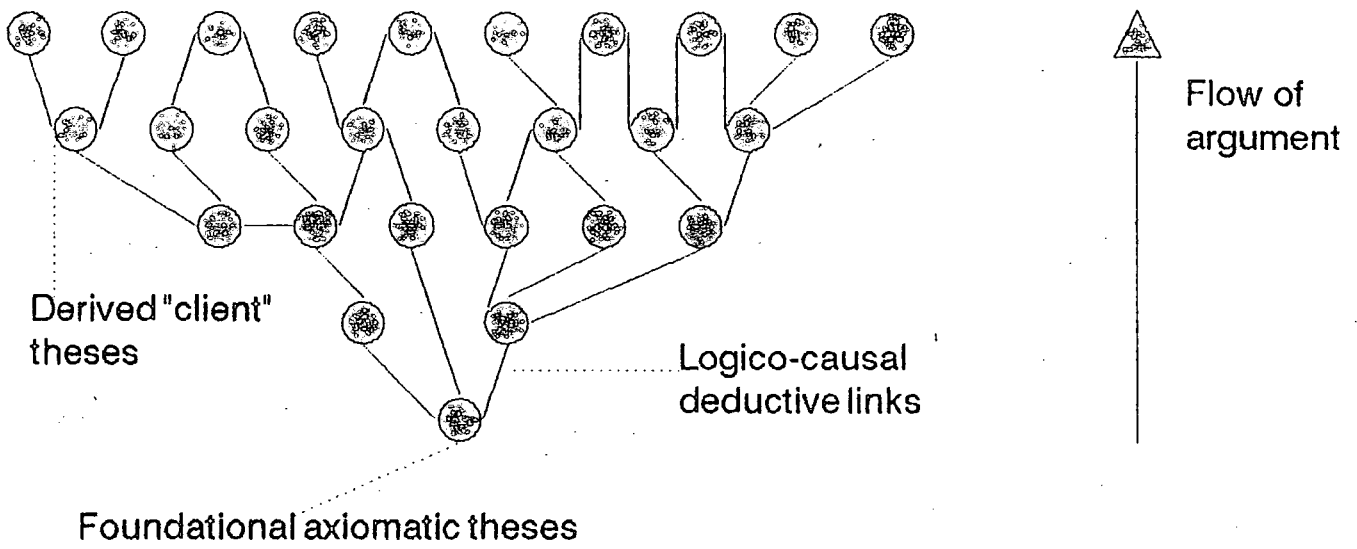


Fig. 1. Foundational epistemology.

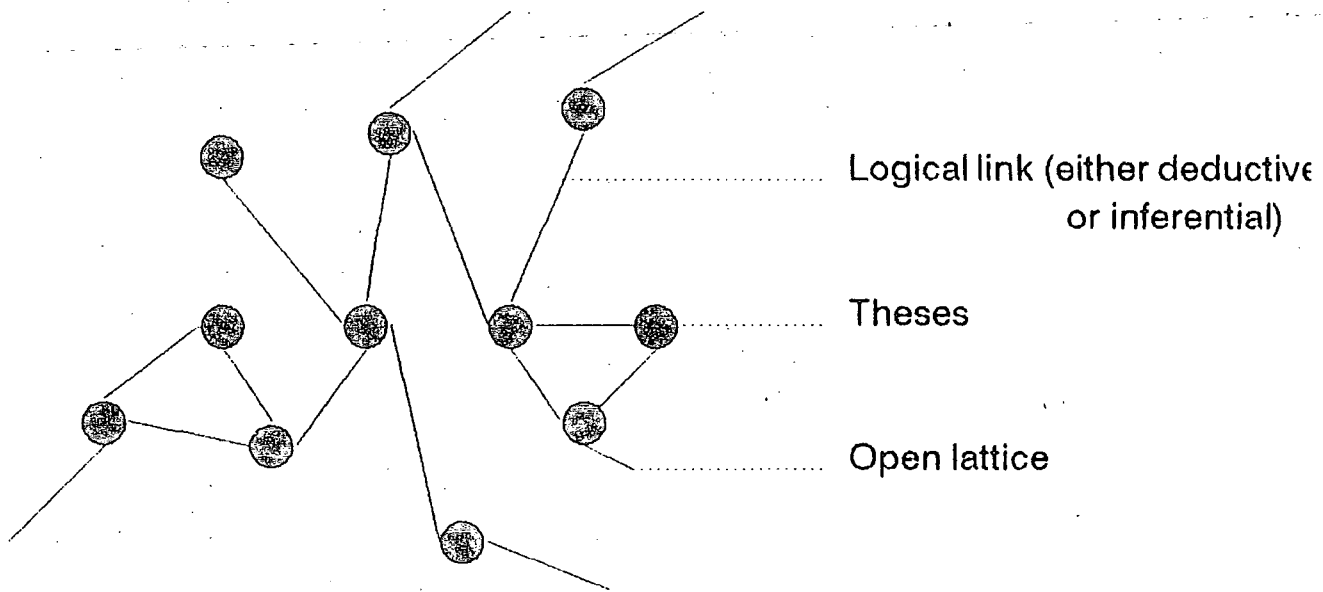


Fig. 2. Non-foundational epistemology.

however, is that we all bring with us a method of having access to and categorising the "data" we encounter.

Foundationalism has in fact been the primary model of cognitive systematisation[1] right up until the eighteenth century. It was the model used by Plato, Descartes and Locke for example, and even today it is still dominant. Its origins can be traced back to Euclid and Aristotle in his "posterior analytics". Foundationalism asserts that from basic self evident axiomatic theses, all knowledge can be derived by logico-deductive argument. For Euclid, from basic mathematico-geometrical truths, "client truths" can be derived that are true by virtue of their logical relationship to the foundational truths on which they rest. The result of this form of argument is a tight, rigorous hierarchical system resting on axiomatic truths which themselves require no justification, but which serve as the guarantors of truth in the epistemological framework. The resultant framework takes the form of what Nicholas Rescher calls "a vast inverted pyramid" [2] resting on fundamental truths. (See figure 1). By a process of rigorous logic and deduction, foundational axiomatic theses give rise to derived "client" theses that are dependent on the foundational axiomatic theses for their truth value. These derived truths, by combination with other derived truths or with

foundational axioms, give rise to further truths. A framework of knowledge thus depends on a few foundational axioms. Richard Bernstein has provided a useful summary definition, of foundationalism as

any philosophical theory which seeks an ontological grounding, an Archimedean point or a fundamental a-historical matrix from which to begin the search for knowledge by means of rigorous thought.[3]

1) Truth testing in foundational structures.

Within this framework a proposition is tested for truth by its relationship to the axiomatic grounding truths. Pursuit of knowledge therefore proceeds along linear routes of argument from basic theses.

This procedure is all well and good when the fundamental axioms are agreed upon, but when the axioms themselves are questioned the whole structure of knowledge is vulnerable and unstable. When axioms are questioned, they must be defended if all knowledge is not to be lost. However, when an axiom is thus defended it ceases to be a foundational axiom and becomes itself a derived client truth resting on a more fundamental logically necessary axiom.

This has been the story of both philosophy and theology since the Enlightenment, a continued search for fundamental grounding truths. This is clearly seen in protestant theology for example. At the Reformation there was little argument concerning the Bible as a source of truth; discussion mainly centred on the questions of interpretation, since its truth status was not seriously probed. It was considered a source of foundational axioms from which doctrine could be derived. Thus the primary role of the theologian was the exposition of scripture, to make it understandable and to draw out its meaning for the contemporary context. This was "faith seeking understanding".

At the Enlightenment things changed; suddenly the Bible itself was questioned as a source of axiomatic truth. The emphasis of theology thus had to switch from interpretation; it became largely concerned with attempting to show how the Bible and its truths were unshakeable, self-evident fact. This generally took the form of showing how theological statements could be shown to meet the terms of the epistemological framework of the day. Descartes, for example, took the divine as validating the knowledge of the self. Self-knowledge as thus grounded in the necessary being of God assumed the role of a foundational axiom. Hence, the emphasis had now changed; no longer was it that faith simply sought

understanding, rather the great need was for faith and understanding to seek foundation. This emphasis is still today the great impetus of theology.

2) The effects of foundational modes of thought on theology.

The effect of this on theology has been serious. On one hand, some have sought always for faith to appear reasonable. The danger, therefore, is for theology to be continually recast in the current philosophy of the day. Karl Barth recognised the futility of this and saw his own work as an attempt to emancipate the Bible from its "Egyptian bondage" to "one philosophy after another" which tried to "teach us what the Holy Spirit was allowed to say as the word of God".[4] It would seem that theology in some forms of liberal scholarship runs the danger of becoming simply another branch of anthropology.[5]

At the other extreme, reaction to the Enlightenment has taken the form of dogged conservatism. There is often a conscious decision to simply ignore the impact of modernity altogether.[6] In some cases we find a more aggressive form of conservatism declaring secular learning to be evil and false. An example may be seen in the fideistic theology of Cornelius Van Til. For Van Til

the unregenerate fallen mind cannot attain truth or certainty about anything, either God or this world. Such knowledge is only given by faith to the regenerate Christian. Van Til's understanding has little place for "general grace" and is ultimately dualistic in his dismissal of worldly knowledge and truth.[7]

3) Non-foundational structures of knowledge..

Foundationalist theology has never really recovered from the Enlightenment, but there is an alternative non-foundational theory of knowledge, sometimes known as a "cyclic" or "network" model. Such a model seems strange to the modern mind, dominated at least on a popular level by Newtonian modes of thought. To discard foundational axioms (whatever they may be), appears to be a leap into fantasy. For the conservative thinker or theologian the process can be equally painful and appear to result in the casting away of objective truth. Certainly, as we shall discover, not all non-foundational theories are realist in the way theology seems to require, but idealism is not a necessary correlate of non-foundationalism. When we later examine T. F. Torrance it will be argued that his theology is both non-foundational and realist.

What then is the nature of non-foundational

epistemology?[8] Non-foundationalism abandons the "treadmill" search for elusive foundational truths, accepts the world as given and tries to make sense of it. Just as a child takes shaped blocks and by a process of trial and error places them in the correct shaped holes, so the non-foundationalist criterion of truth is: "does it fit, does it work?" The epistemological framework which is required takes the form of a three-dimensional framework or lattice. The strict hierarchy of knowledge is rejected and instead we have interrelated theses linked to one another by a network of connections. These connections may be deductive or inferential. Our inverted pyramid of knowledge gives way to an open framework.(See figure 2). Some local areas of the overall framework may well be Euclidean and strictly deductive in nature, but fundamentally the whole system does not rest on a foundational point or points. In other areas argument may even proceed by large circles.

4) Truth testing in non-foundational systems.

An immediate reaction to such a system is that without fixed reference points, there is a danger for knowledge simply to degenerate into relativism. This need not be the case; although there is no strict hierarchy of truth, it is still possible to have "ruling theses", either operating on fairly local levels (for

example within a particular discipline) or more general theses bridging between disciplines, either originating in just one or traversing both or many. Without acknowledging the existence of such ruling theses there is a great danger that localities of knowledge simply become series of Wittgensteinian "language games". The belief in axiomatic theses is replaced by a concept of "enmeshment"[9], in which theses build a secure web interlocked and joined by complex interconnections with other parts of the web. How then is truth judged to be such? For the non-foundationalist a thing is judged to be true when it can be explained by interrelation. What determines correctness is overall fit. There are no absolute pivotal points around which all else revolves.

One has achieved adequacy when through a process that is continually both forward- and backward-looking one has reached a juncture where everything stands in due mutual coordination with everything else.[10]

Knowledge is that which is

duly fitted into a systematisation of the candidate's cognition.[11]

5) Non-foundationalism and theology.

What does such a system do to theology? R. F. Thiemann in his work Revelation and Theology points out some of the consequences of such a move.[12] Thiemann

explains that theology once again becomes a matter of faith seeking understanding; it becomes primarily a descriptive activity, a matter of displaying the logic inherent in Christianity.[13] Faith is assumed as a given and the task of theology becomes the process of understanding that faith and delineating its internal structure. Theology thus seeks to describe faith. The energy once directed into foundational apologetics can again be directed into the task of expounding the faith. Instead of the never-ending search for a secure foundation, theology's task is to show its internal intelligibility, and how it fits into the framework of the sum of knowledge. Theology ceases to stand above all other disciplines and impose a Christian world view, rather it stands alongside, within the framework seeking to influence and change, attempting to demonstrate how some of its theses are what we have called ruling theses. Non-foundationalism justifies its beliefs primarily within the terms of its own discipline, demonstrating internal logic; only where a proposed thesis relies on philosophies and rationalities shared between disciplines does it need to dialogue with those other disciplines.

Such a view liberates the theologian from inward-looking suspicion and permits the saying "all truth is God's truth" to find its meaning. The theologian does

not have to empty his mind of his knowledge of the world when he begins to think theologically. Keeping hold of the diversity of knowledge, he can commune with scripture in a dialogical manner allowing the text to shape his knowledge, and his knowledge to ask questions of the text. Theology becomes much more open-ended. No longer bound by a tight Euclidean system, diversity in knowledge is given weight and the theologian is better able to cope with paradox. Trinitarian theology, for example, does not fit easily into neat Euclidean systems. The temptation in foundational theology is to tie the message of scripture into clear systematic formulations which do not take seriously the diverse, multilayered nature of the biblical documents. Conservative protestant theology, for example, often seems to prefer a unitary exegesis of biblical material allowing the text to say only one thing. The suggestion that there is tension in scripture is seen as an attempt to undermine the authority of the texts. Much evangelical atonement theory, for example, centres exclusively on propitiation and substitution,[14] seeming to ignore or play down the fact that scripture may possibly propound other parallel teaching.[15]

6) Foundationalism versus non-foundationalism.

We have now briefly looked at foundational and non-foundational approaches and seen how such approaches affect our theological methodology. We shall now attempt to assess the internal logic of both systems as a basis for assessing the work of T.F.Torrance.

Foundationalism as a method of cognitive systematisation does seem to have serious logical difficulties. We shall briefly outline here a number of these problems, and later argue that Torrance himself does much to undermine foundationalist modes of thought.

First, in the field of theoretical mathematics, foundationalism is now seen as an inadequate model to deal with such things as non-euclidean geometry and mathematics.[16] (Torrance himself demonstrates the inappropriateness of foundationalism for Einsteinian physics and quantum mechanics). On a more philosophical level there are serious problems about the very possibility of the existence of axiomatic grounding beliefs, separate in some way from the current epistemological framework. Rescher introduces the problem by showing that any statement of fact is falsifiable, for all statements are themselves "egocentric". In some way they reflect subjective

experience and are not objectively pure; they cannot be said to contain objective certainty.[17] He notes that foundationalists claim that axiomatic statements are arrived at by "some privileged epistemic process".[18] Thiemann calls this "intuition". Such a process is necessary if axioms are not to be bound by pre-understanding or the constraints of the epistemological framework. Such statements belong to the language-independent world of objectivity. Thiemann demonstrates the logical contradiction of this, and, quoting Wilfred Sellars, he demonstrates how making any meaningful statement entails using and bringing that statement into the current epistemological framework. Hence we bring a supposed axiom into a context shaped by our categories and concepts. It cannot be understood or made sense of as if it were independent or paradigmatic.[19] Thiemann demonstrates this in foundationalism with what he calls "an inconsistent triad" which he has adapted from the work of Wilfred Sellars.

1. X intuits the self-caused nature of y entails X non-inferentially knows that y is a first cause.

2.The ability to know first causes is given in the moment of discernment, independent of a conceptual frame.

3.The ability to know facts of the form X is Φ is a skill acquired through the use of the conceptual frame[20].

Thiemann explains that foundationalists wish to claim all three statements. The problem is that the foundationalist also claims that the content of intuition, the axioms, deserves the term "knowledge".

If knowing that y is a first cause is a fact of the form X is Φ , then it follows from proposition 3 that it is dependent on a conceptual frame. But if that is the case, then proposition 2 must be denied, and then the foundationalist's case crumbles altogether. If the foundationalist insists on affirming proposition 2, then a different account of X intuites the self-caused nature of y must be given from that offered in proposition 1. But it is difficult to conceive of such an account that continues to uphold proposition 3, while still claiming that intuition is a form of knowing. In short the foundationalist position cannot be given self-consistent formulation.[21]

With non-foundationalism there are dangers too, but, as we have already hinted, there are many different forms of non-foundationalism. A non-foundational theology must be carefully formed if it is not to degenerate into relativism. Getting rid of fixed points, (even if they are false) is a dangerous business and runs the risk of losing touch with objectivity. In theology many theologians have taken leave of realism and now opt for a non-objective idealist view of reality. We shall argue however, that Torrance produces a non-foundational theology "with a little more backbone", in touch with objectivity in a real sense.

There is a logical conundrum associated with non-foundationalism that we can only hint at here, that takes us beyond the scope of this chapter. A non-foundationalist assumes there is order in the world. He has to if he wants to assert the possibility of knowledge. By asserting this is he not positing a foundational axiom on which non-foundationalism itself stands? Is the non-foundationalist not just a foundationalist in another guise? Rescher gives us a clue when he points out that, by their very nature, foundational statements will by necessity be "content rich" since they have to give meaning and content to the whole structure.[22] The statement "there is order" is plainly not content rich, and of little use in deriving subordinate truths and would be hard pressed to operate as a foundational axiom. This, however, is an inadequate explanation; this whole question involves the relationship between faith and ultimate axioms and we shall discuss this later in chapters Three and Four.

7) Preliminary findings.

We have thus far presented foundationalism and non-foundationalism as competing methodologies of cognitive systematisation. We have assessed the general effects of each system on theological methodology, and finally we have given some preliminary scrutiny to the logical

problems associated with each model. In broad terms foundationalism has been found lacking and non-foundationalist approaches more cogent.

8) Torrance's position.

As we have mentioned, Torrance propounds a realist position in which our apprehension of ontological reality, both of God and the world, consists of more than symbols or ideas. It actually involves a real and direct meeting with that reality, so that humanity can and does encounter "truth". This realism, we shall argue, is the point at which Torrance is misunderstood and the reason he is seen as a foundationalist. Torrance is understood as giving this apprehension of reality axiomatic, foundational status on which he is seen to build a system of knowledge. It will be demonstrated that realism and foundationalism do not necessarily go hand in hand.

In Torrance's work Divine and Contingent Order he clearly places himself in the non-foundational, realist camp. In this chapter we shall be concentrating on this particular work since it is perhaps here that Torrance's non-foundationalism is most clearly set out.

Fundamental to his work is his understanding of "contingence". With this understanding of contingence his assertions of realism can be properly understood. Contingence is seen as a doctrine arising out of the Judeo-Christian understanding of God as creator and that creation is itself "out of nothing" or ex nihilo. Torrance gives a preliminary definition of contingence in the Preface to the book by speaking of the sheer givenness of reality; contingent realities "just happen to be like that".[DCO vii] From Christian doctrine, then, we have a conception of reality that is non-dualistic; all of reality is God's creation. Furthermore, reality is non-deterministic, since reality is created by God's free will and not the result of some necessitarian emanation from God. Reality is therefore distinct from God, but at the same time dependent. Since there is no necessary relationship between God and creation we cannot formulate reality into a Euclidean formalised ideal system of logico-causal links.

Torrance points out how this conception competes with Greek thought, and in particular the doctrines of the absolute impassibility and immutability of God. The doctrine of creatio ex nihilo teaches that not only is matter created, but also space and time. Space and time are not conceived simply as empty containers, in God, into which created matter is injected, but as created

entities themselves. For the Greek mind space and time are absolutised as eternal and infinite. In such a system, matter is imprisoned in a determinism of causal relationships originating in the unmoved mover, the first cause, God himself. Reality is, therefore, seen in terms of strict logico-causal, Euclidean structures. For Torrance, the history of science, philosophy and theology has been an oscillation between these two conceptions of reality, contingency and the Greek view of things.

Torrance points out how Newton, operating from Greek presuppositions, produced a classic formulation of Greek science. Newton operated on the assumption of a necessitarian relationship between God and the universe and by implication the absolute nature of space and time. The order and rationality of the universe was thus guaranteed since it was governed by the absolute rationality of God. Since space and time are the medium of creation, matter is guaranteed to behave with mathematical precision as it conforms to the mind of the immutable God.[DCO 1-9] Torrance indicates that this led to "a massive deism".[DCO 10] Since the universe operated according to strict mathematical laws, God had no need to be involved in the running of the system; indeed God could not interfere. The Incarnation was therefore seen as a nonsense. How could God become

incarnate in a universe which he himself contains?[DCO 10] For the deist, God had "lit the blue touch paper and retired".

Torrance is clearly opposed to strict Euclidean systems as found in classical science. His own conception of contingency he finds aligned to the new science of Einstein and his followers. Einstein is seen by Torrance as totally restructuring classical science and method. Newton's closed deterministic universe is replaced by

a continuous and open system of contingent rationalities and events with an inherent unifying order. As such its internal consistency must finally depend on relation to an objective ground of rationality beyond the boundaries of the contingent universe itself.[DCO 11]

At this point Torrance could well be seen as being guilty of foundationalism, but his talk of "grounding" must not be seen as an attempt to find axiomatic grounding for "the system". He is clear that the link of the universe with God is by definition non-necessary and non-causal. Such a grounding cannot operate as an axiom.

For Torrance, Einstein's conception is of

a finite but unbounded universe with open, dynamic structures grounded in a depth of objectivity and intelligibility which commands and transcends our comprehension.[DCO 11]

Torrance explains that Newtonian physics is not totally refuted but given the role of "field physics" which apply only under certain conditions. This relates to our earlier talk of "Euclidean localities" in a system that is globally non-Euclidean. Torrance points out that Einstein takes seriously the contingency of space and time, in other words space and time are not unvarying empty containers but themselves part and parcel of the dynamic universe. Matter is thus spatially and temporally extended. The concept of a closed universe is rejected.[DCO 11]. In another place, Torrance notes how the pursuit of science has now led back once more to the truths of contingency:

it is significant that a rigorously scientific approach to the universe today, which carries its inquiries into the immanent intelligibilities of the universe to the very boundaries of empirical reality where natural science breaks off, approximates to just such a theological understanding of it.[DCO 70]

Torrance points out that such a conception liberates nature from the constraints of a predetermined system. No longer do we tell reality what it can be before we come to it; it is allowed to declare itself as it really is.[DCO 15] Torrance sums up this conviction thus:

the universe confronts us as an open, heterogeneous contingent system characterised throughout by co-ordinated strata of natural coherences of orderly connections of different kinds in and through which we discover an uncircumscribed range of rationality

grounded beyond the universe itself but reaching so far beyond us that with all our science we realise we apprehend it at its elementary level only.[DCO 20]

Contingence then, allows for the fact that there is order and rationality in the universe and therefore intelligibility and reality. But this reality does not derive from God by some necessary connection with the divine(as a foundationalist would say). The central concept of contingence is absolute dependence on God, a grounding relationship, but at the same time true freedom from God. The relationship is not causal. Torrance makes this clear

From the point of view of Christian theology, in its creation out of nothing the universe has had conferred freely upon it a created rationality of its own, derived from (not participating in) the uncreated rationality of God, yet transcendently (not ontologically) grounded in it.[DCO 21]

This distinction is often not seen and leads to the belief that Torrance is guilty of foundationalism.

How then does Torrance perceive the way in which we know reality? Torrance notes that in many ways the world is somewhat arbitrary. He traces this back to the "double aspect of contingence", the way in which the universe is at the same time orientated towards God and

away from God. This ambiguity is resolved since God is active in the world, actively presenting and interpreting reality to us. God is not a source of axiomatic truths from which we construct necessitarian structures of knowledge. He is not some external guarantor, but rather by His free will a God who intervenes and interprets. Rationality is thus given in a continued act of creation:

The creative act which brought the universe into being and form was not regarded as limited to its initial impulse, but as remaining unceasingly operative, preserving, unifying and regulating all created existence which conversely was contingent in every respect of its nature and in no sense divine. Thus Judaism contributed to a profound understanding, not only of absolute beginning, but of the continuity, stability, and uniformity of the natural world as grounded beyond itself in the constancy, faithfulness and reliability of God its Creator and Preserver.[DCO 32-33]

Because of God-given contingency and its God-given rationality, the universe reveals itself to us as it really is. Because of this contingent rationality, the scientist is free and indeed duty-bound to go forth and explore the nature and diversity of contingent rationality.

As we have said, it is easy to misread Torrance as advocating epistemological foundationalism in his insistence that reality and our apprehension of it is

grounded in God. We have attempted to introduce the idea that such a grounding relationship does not entail foundationalism but rather a system in which God, by his non-necessitarian free choice, chooses to give the world contingent rationality and man a contingent ability to comprehend this rationality. God does not supply us with foundational axioms but allows contingent reality to reveal itself to us as we explore and question it.

In the final chapter of Divine and Contingent Order Torrance shows why he rejects what can be called "non-foundational idealism" and why he believes our knowledge can be locked into reality even though he himself rejects foundational modes of thought. Torrance plots how science moved from its commitment to contingency to one of necessity under the influence of Greek thought. This involved a strict Euclidean universe based on foundational axioms. He traces the Enlightenment attack on foundational epistemology from Hume to Mach. Hume seriously questioned the possibility of foundational axioms, and this resulted in extreme scepticism which manifested itself in "idealism". Idealism in this case is an approach to science and learning which denies any relationship of statements to reality. Thus laws are formulated on the basis of how things usually take place in the world of experience.

Torrance believes that such a conception of the universe lacks rationality because it has no sense of necessity from foundational axioms and it lacks an independent rationality of its own. Such a position sees the flaws of foundationalism but also rejects contingency and the result is scepticism. Torrance himself rejects foundationalism but gives his non-foundationalism "backbone" with his notion of contingency.[DCO 92ff]

9) Realism in science.

Torrance goes on to demonstrate how the onward march and progress of science itself has led to a new realism in science.[DCO 96] Its simple success has forced upon us the realisation that it must have some link with reality (otherwise why does it work so well?). Enlightenment philosophy, however, demanded that this link be filtered through the primary subjectivity of the mind. In Kant for example, the mind is given absolute priority as a primary "cause" in our assimilation of knowledge. Any belief of correspondence between the structures of the mind and ontological reality is discounted as illusory; we cannot speculate even about what that relationship is. Thus there arose a deep dualism between object and subject. Torrance notices, however, that even this position cannot rule out the

sheer contingency of the universe, for the laws of science, even though in Kant's system they operate simply as "signs or ideals", nevertheless show a profound consistency with each other; but at the same time they can not generate their own internal proof.[DCO 96-97] They must rely on

undefined and unexplained assumptions which, so far as the set of necessary propositions is concerned, are logically contingent... no generalisation of scientific theories into natural laws can eradicate contingent features from our knowledge of the universe without being rendered empty and meaningless.[DCO 97]

The very coherence of natural laws for Torrance is a sign that they are to do with reality, for

scientific theories and laws repose upon contingent factors which cannot be bracketed out of their equations even though they make them incomplete.[DCO 97]

For Torrance, contingency is not a disordering factor but the very source of order and realism. It is

an all important ingredient making for the astonishing richness and variability of nature, which constantly defies our capacity to anticipate it or to reduce it to our standardizing formalizations. Indeed it is precisely because we find ourselves having to reckon with this ingredient that we are convinced that our scientific theories are locked into reality.[DCO 97]

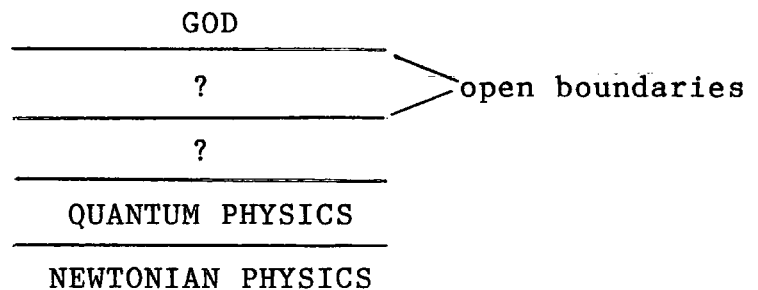
It is on such grounds that Torrance rejects non-foundational idealism, the position held to by many of his critics.

It is this characteristic of contingency that is reflected in the onward progress of science. Contingence broke through, Torrance says, when Newtonian science began to find difficulty in fitting its laws to what actually went on in nature. Reality refused to "go away" and broke down the Kantian mind-set. This dissatisfaction with the laws of classical science led to the revolution that quantum physics brought in the way we see the world. It was realised that the deep structures of nature do not fit into deterministic or idealised thought systems. On the contrary, they show a rational order that is "open" and continually pointing beyond itself.[DCO 100-101]

10) A multi-layered structure of the universe.

The idea of contingent order pointing beyond itself in its openness is important for Torrance, and he very clearly shows the influence of Michael Polanyi here. Polanyi in his work The Tacit Dimension[23] looked at questions of ontology and how the structure of human knowledge affects understanding of reality. In

Meaning[24] he conceived of a multi-levelled structure in which the human mind knows and learns. Torrance similarly proposes a multi-layered world of different rational orders in which a hierarchy of different levels are co-ordinate with one another. Torrance points out how Newtonian physics is not a complete physics in itself, but is open to the higher level of order in Quantum physics. Quantum physics is itself an incomplete system and thus open to higher orders of reality which are ultimately open to God. In our universe which is finite and bounded there is a lowest and highest level which denote the limits of empirical, contingent, rational, reality which are the domain of our knowing. At the boundary of its highest levels it is open to what is beyond.



Each level is incomplete and only completed in the next level. Such a view of universal order denies foundationalism but at the same time affirms the existence of an ultimate ground and completeness in God as each level is dependent on him, not by a formalised,

necessary link, but by God's freedom, and reality's freedom from God.[DCO 102ff]

Torrance is quite aware that his view of things is not shared by all, and in places illumines some of the problems that seem to be stumbling blocks to his critics. For example, Torrance criticises Jean-Paul Sartre [DCO 107ff], seeing him as a non-foundational idealist. Sartre accepts that contingency (the sheer givenness of reality) when deprived of foundational axioms, is rendered meaningless, since without an ultimate reference point it is unintelligible. Torrance points out that this is to misunderstand contingency. Contingence is by its very nature intelligible. Indeed, its own incompleteness and internal consistency are signs of this. As it is open to God it becomes meaningful. This is not because contingent order has some logical, necessary, causal relation to God, rather that it is grounded and completed beyond itself. This openness allows what is beyond to have a "signitive and semantic function" in the contingent reality.[DCO 107] Torrance argues that Sartre's mistake was to believe that any relationship of God to the universe must be necessary. Sartre, Torrance explains can not conceive that there could be

a rational bearing of God upon the universe which, instead of menacing it and negating its freedom or undermining its self-identity, is the continual creative source

of its contingent intelligibility and its
astonishing freedom and variety.[DCO 107]

This is an illuminating passage when attempting to understand Torrance. Yes, he rejects idealism for realism, but his realism is not based on God having a necessary relation to his creation. God does not reveal foundational axioms, but he is active in continued creation, maintaining contingent order and intelligibility, grounding the open structures of the universal order in himself by his freely given grace. God gives the universe its own independent rationality, a rationality independent of his but grounded in him. God therefore is not the source of foundational truth but rather of contingent intelligibility.

11) Is T.F.Torrance a foundationalist?

In proposing this subtle understanding of the relationship between God and his world Torrance is frequently misunderstood. An example of such a misunderstanding can be seen in Thiemann's Revelation and Theology. [25] Thiemann notes that Torrance makes a distinction between "existence" and "coherence statements". [TS 164ff][26] This distinction involves fundamental statements concerning matters of fact and statements concerning the relation of ideas, in other

words derived statements. This sort of categorization automatically spells foundationalism for Thiemann. He sees such a distinction as parallel to the distinction between axiomatic grounding beliefs and derived beliefs. At first sight it is tempting to agree with Thiemann, but to do so would be to forget contingency. Torrance does believe that we can apprehend reality and that derived statements can be formed and derived by logical argument. These statements, however, never take the form or status of foundational axioms. His whole system, although shot through with objectivity, is not foundationalist but coherentist and rooted in his understanding of contingency. Localities of a system of knowledge may well appear foundationalist, as in the case of Newtonian physics, itself a strict Euclidean area, but the overall system is not so grounded. God is in this coherentist system allowing matter to take rational form and declare itself in a real, but never a necessary manner. Torrance qualifies his statements in the same section, clearly placing himself outside the bounds of Thiemann's objections. Speaking of existence statements he says

they are never complete for by their very nature they reach out beyond themselves... Existence statements have thus always an indefinite quality for they refer to a reality that cannot by its very nature be reduced to pure thought or be enclosed within the brackets of mere ideas and so be

made entirely transparent to our reasoning.[TS 166]

Or again:

existence statements are necessarily open and to that extent indefinite because they refer beyond themselves to a reality which by its very nature cannot be expressed in the language of abstraction.[TS 167]

Torrance's understanding of the nature and function of what he calls existence statements clearly places him outside the foundationalist camp.

Clearly all of our study so far has led us to the general conclusion that Torrance is no foundationalist. This whole subject is however, rather more complicated than we have as yet explored. The issue of foundationalism will continue to be important in the following chapters as we seek to deepen our understanding of Torrance's theology.

END NOTES TO CHAPTER ONE

[1] This phrase is taken from a work by Nicholas Rescher. Nicholas Rescher Cognitive Systematisation (Oxford, Basil Blackwell 1979).

[2] Ibid., p. 41.

[3] Richard Bernstein Beyond Objectivism and Relativism: Science Hermeneutics and Praxis (Philadelphia, University of Pennsylvania Press 1983), p. 8.

[4] Karl Barth, "Rudolf Bultmann An Attempt To Understand Him" in Kerygma and Myth (London, S.P.C.K. 1964, 1962).

[5] Ronald F. Thiemann, Revelation and Theology: The Gospel as Narrated Promise (Notre Dame, Indiana, University of Notre Dame Press 1985), pp. 5-6.

[6] Such involvement in learning is seen as "worldly" and likely to undermine faith.

[7] D.F.Kelly, "Van Til, Cornelius" in New Dictionary of Theology (Leicester, Inter-Varsity Press 1988), p. 704.

[8] Nicholas Rescher op. cit., p. 34ff.

[9] Ibid., p. 46.

[10] Ibid., p. 48.

[11] Ibid., p. 50.

[12] R.F.Thiemann op. cit., pp. 72-78.

[13] R.F.Thiemann op. cit., p. 75.

[14] Examples of this are James Denney, The Death of Christ (London, Hodder and Stoughton 1902) and more recently Leon Morris, The Cross in the New Testament (Exeter, Paternoster Press 1967).

[15] Walter Moberley reviewing Alister McGrath, The Enigma of the Cross (Hodder 1987) in Anvil: An Anglican Evangelical Journal for Theology and Mission (Vol 5, No. 1, 1988), pp. 88-89.

[16] Nicholas Rescher op. cit., p. 59.

[17] Ibid., p. 58.

[18] Ibid., p. 50.

- [19] R.F.Thiemann op. cit., pp. 41-42.
- [20] Ibid., p. 45.
- [21] Ibid., pp. 44-45.
- [22] Nicholas Rescher op. cit., p. 54.
- [23] Michael Polanyi, The Tacit Dimension (London, Routledge and Kegan Paul 1967).
- [24] Michael Polanyi and Harry Prosch, Meaning (Chicago, University of Chicago Press 1975).
- [25] R.F.Thiemann op, cit., p. 39.
- [26] We will discuss coherence and existence statements more fully later in the thesis.

Chapter 2

INCARNATION OF GOD AS WORD AND BEING.

The key to religious epistemology?

The Incarnation of the Son or Word constitutes the epistemological centre in all our knowledge of God.[WCCCA 9]

Introduction.

In the previous chapter we began to demonstrate that T. F. Torrance is not guilty of epistemological foundationalism. His position is rather, a sophisticated non-foundational realism. This chapter will seek to deepen our understanding of Torrance's position by addressing the central question of how it is that an infinite, eternal God can communicate in a coherent and rational way with contingent, finite creatures possessing contingent, linguistic and epistemological frameworks. One way of responding to this question is to discuss the ancient concept of "analogy" - as distinct from the use of univocal and equivocal language - and the Reformation doctrine of "accommodation". Both are of fundamental importance for orthodox formulation of Christian theology.[1]

that has occupied the minds of most of the major thinkers of the past including Descartes, Kant and Hume.

R. F . Thiemann clearly misunderstands the nuances of Torrance's approach when he labels it foundationalism but nevertheless he very ably analyses and identifies some of the major difficulties and logical problems associated with any doctrine of revelation. He believes that Torrance falls into the traps that he identifies. We will show that this is not the case. Thiemann's clear framework, however, is a very useful tool in a critical analysis of Torrance's work and as such we will now summarise the epistemological problem as expounded in Revelation and Theology. [3]

In the previous chapter, on page twenty two, we cited the "inconsistent triad" adapted from Wilfred Sellars. [4] This triad sums up the essential arguments against foundational modes of thought of which Thiemann believes Torrance is a proponent. Thiemann rightly asserts that if we are to claim a place for any religious assertion then that assertion must in some sense derive from and relate to the prevenient or prior act of God. Without such a source our theology simply becomes an exercise of people speaking to people and calling it God, anthropology by another name. [5] He also asserts that any talk of God must be rational, in other

words it must relate to creaturely linguistic and epistemological frameworks for it to be called knowledge, in the same way that ideas derived from non-divine sources are considered knowledge. He sharpens up his argument at the beginning of Chapter Two with a section we shall summarise.[6]

Thiemann points out that theologians have traditionally asserted that revelation is rational. They have simultaneously argued that the truths of revelation are a special set of truths based on a special mode of knowing. They are unknown by the normal processes of reason. Thus he argues that these two assertions are mutually incompatible.

The justification of Christian claims to knowledge of God depends upon an argument which shows both the similarity and dissimilarity between the content of revelation and the content of ordinary knowledge as discerned through the use of reason.[7]

There is a serious problem of coherence in most classical arguments. This has necessitated great subtlety as theologians have argued for both the similarity and distinctiveness of the truths of revelation as distinct from truths derived from ordinary rational argument. Theologians asserting revelation's distinctiveness also have to assert its uniqueness.

They are then hard pressed to show how a unique content discerned by a unique mode of knowing can be justified with reference to an

ordinary philosophical epistemology. Revelation is gained in such positions at the expense of reasonableness.[8]

Thus rationality is the victim when uniqueness is asserted. However, theologians trying to safeguard revelation's rationality often deny or diminish the uniqueness and distinctiveness of the claims of revelation. Thiemann points out that if revelation can be justified solely through the use of reason it is difficult still to see it as revelation in any sense of the word.

Revelation connotes a uniqueness in source and content which cannot be maintained in a position justified by general epistemological principles.[9]

The "man-trap" is thus sprung. Thiemann thinks that Torrance is going to step into it, but we shall argue that the very design of the mechanism is wrong, for it misunderstands the animal it seeks to capture.

Thiemann, however, has set out the parameters of the theological epistemological problem and given us the areas for exploration that are at the heart of the matter. These areas include the nature of religious language, rationality and the nature of faith. It is these areas that we must probe with relation to Torrance. In this chapter we shall concentrate on the relevance of the Incarnation for this problem and the

next chapter will deal with questions of faith and rationality and the epistemological problem from the point of view of the human knower, tackling also issues associated with justification for Christian belief.

2) The Incarnational Epistemology of T.F.Torrance.

i) God speaks through the medium of contingent realities, language and epistemologies.

Torrance does not believe that man's apprehension of God takes place outside the contingent condition of man. Rather it takes place in our minds through human language in the midst of created realities and structures.[10] It is not therefore a mystic or ecstatic experience, but fully rational, and knowledge gained in this way is knowledge in the proper sense of the word. [TS 11-12,28] The questions arise then, does this not bind our conceptions of God to the world? How is it possible to distinguish between God and creation?[11]

Of fundamental significance here, is Torrance's idea of "open concept". Contingent realities are the place chosen by God where communication takes place between God and man. Human language, then, is the God-ordained medium in which we express our concepts about God in statements. Language for Torrance has a transparent

character; words are not one-to-one representations of reality but rather tools through which we are directed towards reality. As such, they have reference to what is already known and also to what is new and as yet unknown. Thus, it is possible for a human mind to grasp something within language and normal understanding that contains as part of our

understanding of it that it cannot be exhausted by our knowledge of it, and that by its very nature it reaches out so far beyond us that we are unable to delimit our concept of it or bring it within the four corners of a proposition.[TS 15]

We can begin to grasp something of the nature of a thing that we cannot even begin to contain in our ideas through our ideas.

Torrance gives a graphic example of this in pointing to Byzantine art and the use of the icon. He points out that many icons of Christ, because of the way they are painted with gold backgrounds and vanishing points that do not converge in the way that we normally expect, lead us on to conceive of Christ in terms of eternity. Thus it is possible to conceive of Christ in a definite way that is nevertheless open to the eternal.[TS 14-15] Torrance notes how this now is found in modern physics, which using some of the categories of limited classical physics is able to point through them and beyond it-

self to non-empirical realities.[TS 15-16][12]

Clarification of this is given as Torrance draws from the work of the physicist Kurt Gödel. Gödel showed that a consistent language or conceptual framework is incomplete and imperfect. If it were to be complete in itself it would simply become a game, just as theoretical mathematics divorced from empirical science is meaningless. If a system is to be given validity then this must be done with relation to another wider system. Thus, a language only has meaning through semantic reference beyond itself. It therefore finds its meaning "upwards" as its inconsistencies are explained by the higher system. It also is coordinated "downwards"; if religious language is to have meaning it must be coordinated with the way ordinary language is used to speak of created realities. Thus although we might use special words and concepts they must be coordinated through the hierarchical structure that connects different forms of language; otherwise it would have no meaning for us at all.[STI 86-88][13] Here then we have a summary of all we have been saying. Our talk of God is exercised and articulated within the parameters of contingent language but the very inadequacy of that language points us beyond to that which is beyond and transcendent.[STI 56]

Torrance points out that unlike the object of scientific inquiry the object of theology is not a mute fact or inanimate object, but God who is living and active; and he communicates himself to us as Word through word. Scientific language, coordinated with the language of sense experience, points beyond itself to realities beyond sense experience and religious language; or religious words coordinated with the language of sense experience point beyond themselves to the Word of God.

Torrance makes a crucial distinction here between Word as the absolute self-communication of God and words through which we imperfectly try to point to the objective reality of God. Torrance defines theology as

a listening for and to a rational Word from beyond anything that we can tell to ourselves and distinct from our rational elaborations of it.[TS 30]

Torrance therefore sees words and language as abstractions of objective reality. God speaks from beyond our language and epistemology but nevertheless uses contingent language as the medium in which people begin to grasp his nature.

the given fact with which theology operates is God uttering His Word and uttering Himself in His Word, the speaking and acting and redeeming God, who approaches us and so communicates Himself to us that our knowing of Him is coordinated to His revealing of Himself, even

though this does not happen to us except in a complex situation involving our cognition of the world around us and of ourselves along with it.[TS 32]

Our abstractions of absolute reality are not invalid, so long as we understand them to be abstractions through which we apprehend reality. An interesting and enlightening parallel comes in the preaching of Jesus in Luke Chapter eight, I. Howard Marshall commenting on Jesus use of the word ἀκούω in verse eight says of the phrase "Whoever has ears to hear, let him hear", that

By it the hearers are summoned to hear at a deeper level than mere sense perception, to take hold of the meaning of the parable, to apply it to themselves, and thus to hear the word of God which can save them(Ezk. 3:2).[14]

All of our concepts and language concerning God must remain "open" for by the very limited nature of contingent language it cannot possibly "hammer down" the transcendent Word of God. To use language in this way, believing there to be a tight one-to-one correspondence between our concepts and reality, is to lay ourselves open to the difficulties uncovered by Thiemann and attempt to force God into categories and frameworks derived from our experience of created order.

Torrance is here alerting us to an error in theology that is very prevalent today. We noted in our first

chapter how some brands of foundationalist theology represented in earlier centuries by men like Perkins [15] and in our own day by Cornelius Van Til [16] ,Louis Berkhof [17] and perhaps to a lesser extent by James Packer [18], led to tight logico-deductive theological systems where "absolute truth" was read word for word from the text of scripture. Inconsistencies are ignored, ironed out or played down leading to a unitary reading of the Bible. Necessarily, the Bible is read selectively and soon a tight doctrinal system is developed into which all of scripture is forced. Thus a tradition that claims to be true to and led by the Bible in fact can be led by abstractions and the demands of a method of cognitive systematisation completely alien to the pluriform nature of the Canon.[STR 7-8]

Part and parcel of this phenomenon is a misunderstanding of the nature of language. Scripture is seen in itself as the very Word of God and a doctrine of "verbal inspiration" is fiercely defended.[19] We have here a kind of idolatry of words. Torrance, in the words of Calvin, warns of the constant danger of idolatry in the heart of man: "hominis ingenium perpetua idolorum fabrica" - "the human mind is a perpetual forge of idols"[20]. Words in themselves become the content of faith and the Word beyond is only encountered in a mishaped and restricted way as it is encountered

strictly within the parameters of our linguistic and epistemological frameworks. Torrance states:

We are not given the Word in the form of delimited and tight propositional ideas but only in verbal forms that always point away from themselves to the Word itself, that is to God speaking in person and communicating rationally to us.[TS 40]

Necessarily, in fundamentalist circles, certain linguistic formulations of doctrine will be dominant and others will be suppressed. Confessions or statements of faith, whilst clearly useful in ecclesial structures, often become touchstones of "soundness" and themselves the object of faith rather than the Word to which they should point. This can sometimes lead to an arid intellectualism where faith is seen in terms of cognitive assent to certain doctrinal standards.[21]

This may well serve as a partial account for the fragmentary and divisive character of conservative Protestantism. Keeping true to the Word of God involves assent to certain linguistic expressions of faith. Because of the absolute nature of words, a different linguistic expression can be seen as being contradictory to the truth. This may or may not be so, but the criteria of judgement will be how it coordinates to those expressions, doctrinal formulations and foundational statements that are already accepted and

not how the statement helps us to look beyond itself to the transcendent reality of God. Other statements may well be helpful in taking us beyond themselves to reality; they may even be pointing to the same thing but because they are linguistically different and on the level of words may appear contradictory they are declared untrue. Differences in expression may well come down to differences in cultural linguistic use and thus this mistaken idolatry of words can take the form of "verbal imperialism".[22]

Torrance's use of language finds a "realist" third way between the strait jacket of fundamentalism and the "idealism" of some forms of liberalism that sees theology dealing only with relations of ideas having little bearing on ontological reality.

ii) The Incarnation of the Word of God in space and time as the locus of the epistemological model.

The question naturally arises, why does Torrance see language operating in this way? What is his authority to make such an assertion? Is it simply an expedient theory, an arbitrary choice that happens to work?

Torrance intends that theology should be rigorous and utterly rational. For Torrance the appropriate mode of rationality is given by the object being studied. Each science must find its own method and rationality derived from the nature of its object. Torrance completely rejects the Enlightenment idea that reason is some neutral method or simply the natural working of the mind that we apply universally to our chosen object of study. Our mode of rationality is discovered a posteriori from our encounter with our object and is constantly readapted as we encounter our object more deeply. To attempt to place upon God an external and contingent rationality and epistemological framework would be to limit him and cause us to ask questions in abstraction from the reality of God. We will discuss this in much greater detail in our next chapter but for the moment we simply need to note Torrance's notion of a posteriori rationality and epistemology. In other words our epistemological framework and mode of rationality is derived from the way we actually do meet God in experience. We do not prejudge him but allow him to question us. Torrance is again agreeing with Calvin; to seek God in a way other than the way appointed by him (Ordinatis a Deo Medis) is to end up in idolatry, for "there can be no true image of God except such as He Himself has ordained".[23]

Where then, is the place that we meet God according to Christian practice? Torrance answers the question firmly, stating that it is in the person of Jesus Christ met in the contingent order and nowhere else. To seek God elsewhere is to allow creaturely subjectivities to replace God's clear Word in Christ. Consciously putting aside the very important question of how we know that Christ is the locus of God's revelation to us (this will be discussed in the next chapter), for our present purposes we will assume Torrance to be correct and examine how he sees the Incarnation affecting our understanding of rationality, language and indeed the epistemological problem in general.

iii) Jesus Christ as the reconciliation of Word and Being.

We have seen the difficulties, set out by Thiemann, for the theologian as he attempts to speak of the ontological reality of a transcendent God. Contingent human language under normal circumstances is quite inadequate when dealing with non-contingent realities. Torrance has pointed to a theory of language that would seem to deal with some of the logical problems here but nevertheless we are still left with two questions. First, is this theory legitimate in terms of the way God actually has revealed himself; in other words is our

methodology governed by our subject? And second, even if we have a linguistic theory that theoretically would allow us to speak of God, how do we know when we do so and not simply fall into subjective speculations? The first relates to epistemology and the second to authority.

The epistemological problem as stated by Thiemann leaves no room for rational communication between man and God. There is no logical bridge. Ontological truth resides in God, and man is bound within the categories and contingent references of earthly language and epistemologies.

God / Transcendent

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logically :

unbridgeable= :

:

Man / Contingent

It is clear that Torrance would object to such a schema as fundamentally unscientific, because it fails to take account of the way in which God actually has come to us in the person of Jesus Christ. Torrance would see Thiemann as failing to be properly open to the object of theology. Thiemann attempts to construct his epistemology in an a priori fashion rather than allowing it to be formed by the way in which God is actually known in the Church. Torrance states that

The Object of theological knowledge is speaking Subject, God addressing us personally - that is, the Word of God. [TS 39]

So far as theology is concerned, fuller place must be given to the truth in the form of personal Being. This is Truth which has taken the form of active life and being in our historical existence and is revealed in Jesus Christ. He has come not only to communicate the Truth to men but to be the Truth amongst us, for in the whole course of His human life He was the Being and Word of God's Truth incarnated in our creaturely being, the Truth enacted in the midst of our untruth, the Truth fulfilled from within man and from the side of man and issuing out of human life in faithful and obedient response to the Truth of the Father. [TS 143]

Speaking crudely, Thiemann is guilty of reaching his conclusions after taking account of only half of the available evidence.

Torrance also accepts the vast gap between man and God and the complete inadequacy of contingent language to describe the transcendent.

We grant that considered entirely and only in themselves theological statements have no real truth and we admit that we cannot just say how they are related to the reality which they indicate, for they have no claim on God that He must be their object or their content.[TS 184]

Torrance acknowledges that from the side of man we cannot say what if any relation there is between our religious language and God, but this is not the end of the story! To end here is to deny the possibility that God has taken an initiative from his side of the "gap" as it were. Thiemann here seems to be arguing in an almost "Newtonian" manner.[24] He is disallowing rational communication between man and God because it will not fit into a contingent system of formal logic. Thiemann quite rightly rejects foundationalism but here seems to adopt a mode of argument of tight logical necessity that squeezes out openness to the beyond. Torrance, however, whilst accepting fully the logical discrepancy from the side of man, is sure that this does not mean that God cannot intervene and indicates that Jesus Christ is the place where this has happened.

In Jesus Christ the discrepancy between theological statements and the reality to which they refer has been overcome, and in Him that relation between human statements and the objective facts to which they refer, which can not be put into words, nevertheless shows itself.[TS 186]

As we have said, Torrance's justification for locating

Christ as the place where this occurs needs some serious questioning and this will occur in later chapters. We shall argue that such a position is neither a dodging of the issues, nor irrational.

Torrance's clear position, then, is that even though we cannot say exactly how this occurs, nevertheless in our actual experience we do know God. He speaks to us and we are able to speak to and about him; and this he does in Jesus Christ. Although Torrance is certain that from the side of critical reason we cannot ask "how" this occurs, we can however study "what" occurs, the content and nature of this revelation.

We have seen that in the epistemological problem a fundamental difference is held to be between the absolute ontological truth of God and contingent language and words which are quite inadequate to their subject matter. The Christian doctrine of the Incarnation, however, declares that in Jesus Christ, truth has come to us in the form of God's personal being, present in our world as a man. It seems that this very point is the crux and centre of Torrance's whole theological programme, for here ontology and epistemology can be seen to come together. In Christ, statements and words overlap with objective reality in a unique, God-ordained way, as Christ comes to us as both

God's communication to us (his Word) and as God himself (his Being). In God's speaking to us in the man Jesus, He himself is present.

God / Transcendent

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	:		
	:		
logically	:		Jesus Christ,
unbridgeable	⇒:		"concrete
	:		universal"

Man / Contingent

In this way Torrance describes Christ in the paradoxical phrase "concrete universal".[TS 182] The universal, divine truth has become particular, contingent and human. The paradox described here is nothing other than the paradox of the Incarnation: God becoming fully man and yet remaining fully God. By this initiative the truth of God comes to us since we are unable by cognitive or logical exercise to reach it for ourselves. Torrance writes:

We cannot speak of God's acts if we try to break down the gap between creator and creature, as if we could discern those processes by which in the creation the observable comes into observation, and by which in the incarnation the eternal Son enters into the perceptibility of the world. However, now that the Son of God has become man, appropriating to Himself perceptibility and conceptuality, together with linguistic communicability from created existence, He confronts us men in space and time - in such a way that we can know the Father as He reveals Himself through Himself.[STI 80]

A number of important points come out of this.

a) The Incarnation of Jesus Christ into the contingent world saves us from relativism. We spoke in our first chapter of the "double aspect of contingency", the way in which the creation is both open to God and yet at the same time independent and distinct from Him.[25] This double aspect means that fundamentally this world is ambiguous in its relation to absolute reality. This links in with the gap between logic, language and God. From the perspective of language, in terms of any logical link, God appears ambiguous and beyond the reach of human attempts to speak of him. It is only in God's free acts that language assumes any validity when speaking of God. Because of contingency there is no necessary relationship between the world and God. The only link can be one of freedom. It is the free act of God in Christ that gives us a semantic reference point.

in the Incarnation the ultimate Truth meets us

on this side of the discrepancy, actually within our mundane experience, in the midst of our contingency and relativity, and there makes Himself accessible and amenable to our thinking and our statements.[TS 185-186]

This semantic reference point in Christ allows Torrance to construct a theology that is non-foundational, non-necessitarian and yet realist, having true bearing and relation to ontological reality. This is exactly why incarnation is so crucial to Torrance. The Incarnation allows Torrance to reject relativism and idealism. Speaking of the relationship established between God and man in Jesus, Torrance says:

This gives man his true place for it relates his place in space and time to its ultimate ontological ground. So that it is not submerged in endless relativities of what is merely horizontal. Without this reference man has no meaning, no purpose.[STI 75]

It is possible then for statements to have a bearing on the ontological reality of God in Jesus Christ.

b) Jesus Christ incarnated into this world is the place ordained by God where we may know him. To look elsewhere is scientifically false and to look for God elsewhere will lead us to false conclusions.[TS137] This approach necessarily rules out "natural theology" where natural theology refers to the belief that we can reach and know

God by the use of "reason" apart from the Incarnation, that is, reason out of contingent realities.[26]

This also rules out some forms of mysticism, where the mystic seeks to transcend this world and to think the thoughts of God unfettered by this world. Torrance is sure that this is a false way to God since it tries to by-pass the way God has ordained that we should know him as present within our created existence. Such mysticism, says Torrance,

seeks to elude the actual way in which the Truth of God comes to us within the objectivities of this world, within historical happening, or perhaps to deny that the Truth of God actually condescends to us at all or that He stoops down in pity and mercy to reveal Himself to us in our lowliness and brokenness and earthiness.[TS 188]

Torrance is very clear, therefore, that it is in the context of the Incarnation into this world that we come to know God. It is the one place where we can think through to God. Torrance points out that it is both, the Incarnation and the creation of the world that constitute the two most important factors in our relationship with God. The creation is created open to God and in the Incarnation he steps into that openness. Thus:

The world is made open to God through its intersection in the axis of creation - incarnation. Its space, time structures are so organised in relation to God that we who are

set within them may think in and through them to their transcendent ground in God Himself. Jesus Christ constitutes the actual centre in space and time where that may be done.[STI 74]

For Torrance then, the Incarnation is not conceived of as some kind of "epistemological rescue mission" to get around the problems inherent in the creation, but rather both the Incarnation and the open creation together form a unified medium in which God chooses to communicate with human beings. Christ as the agent of creation also, has so made the universe around himself that he himself gives it a reference to God. In this special way Christ gives the universe rationality, meaning and relation to God whilst maintaining the infinite differential between the world and God, and hence the freedom of God and the freedom of the world over and against God.[STI 72-73]

c) In Jesus Christ, God comes to us adapted to our limitations, language and finitude. Could it not then be said that the God we know in Jesus Christ is not God at all, but merely man in some sort of perfection? Torrance is definite on this point. In the man Jesus, God is present also. This means that although he is not necessarily bound to it, nevertheless he chooses to become subject to created reality. Created reality, space and time are thus real to God. God is real in history and subject to it. Therefore, the God we meet in history in the person of Jesus Christ is true God.[TS

135-136, STI 67] To speak of Jesus Christ, then, is to speak of God, God present in history in an unambiguous way. This contingency in our knowledge of God is not an embarrassment or a problem to overcome; on the contrary, it is appropriate to our thinking and speaking about God. Since God has come as a man, Torrance argues that it is therefore an essential characteristic of the truth that it is known within contingent realities.

It is because God has become man in Jesus Christ and our knowledge of God is rooted and grounded in Christ and shaped through conformity to Him that the very humanity embedded in our knowledge of God is an essential part of that knowledge, for it belongs to the essential nature of truth.[TS 86-87]

It also seems true that in fact God's chosen mode of revelation in Jesus is an integrated part of the content of revelation itself. The fact that God reveals himself in a way that maintains the distinction between divine and contingent and yet at the same time intersects with us in our language and creatureliness speaks of a God who wishes to give his creation freedom and yet at the same time order, rationality and ontological reference.[STI 72-73]

Assessment.

We have seen how Torrance has devised a theory of "transparent" language which clearly helps us out of a number of the problems associated with religious language. We then asked ourselves two important questions. The first asked whether this theory could be reconciled with the way that Christian tradition claims that God has actually revealed Himself to us. In other words, is our epistemological framework derived from the object of our knowledge, as Torrance himself would require? The second question related to a framework of authority in which language could operate. Does the Incarnation truly allow our linguistic framework to be put in touch with ontological reality?

Taking the first question we must answer that it appears that such a theory of language does indeed seem appropriate to and issue out of the orthodox understanding of the Incarnation. God has come to us in Christ - into our categories and references, into our epistemological framework. It is therefore not only permissible but essential in order to speak of him as he has come to us in history that we use earthly, contingent language. In Jesus Christ our words can indeed refer to God. Torrance himself sums this up:

The Word made flesh is the concrete embodiment of the Truth, and is the source, basis and norm

of all God's revelation of Himself so that relation to Him constitutes the sacramental area where human knowledge of God may actually and truthfully correspond to God's revelation of Himself. It is in Jesus that God's Word has so communicated Himself to us in our humanity that human words are taken to speak for God, and therefore it is in Jesus also that our words may rightly and properly speak of God.[TS 150]

Our words when they refer to Jesus also refer to God as he is present in contingent reality. But how may our language refer to transcendent ontology? This addresses our second question as well as our first. We have seen Torrance's theory of transparent language and how it issues out of the idea of "open concept". In order for language to refer beyond itself it must indeed refer through such an open concept. Torrance argues that in Jesus Christ himself we have the ultimate open concept. In Christ, God has revealed himself and made himself amenable to our knowing and we are able to conceptualize God in an historical event. Torrance points out that in the Incarnation God and man are held together in hypostatic union. When we encounter God in the form of Jesus the man, then we meet him in terms of what he is not, that is, man. Truth comes to us then as "mystery", a concrete historical fact who is at the same time transcendent. Christ cannot therefore be encapsulated in our categories and concepts.[TS 149-150, STI 79] In Christ then we come to realise that

There is an ultimate objectivity which cannot be enclosed within the creaturely objectivities through which we encounter it, but the creaturely objectivities have their meaning through this relation in depth to that objectivity that infinitely transcends them.[TS 150]

If Jesus Christ can indeed be identified as the revelation of God then we must say that Torrance has demonstrated that our statements may indeed relate to absolute reality if they are in accordance with the life and reality of Jesus Christ. For Torrance, Jesus Christ is therefore our ultimate source of authority. He is the one place where we may know the nature of absolute ontological reality and the place where we must bring all of our statements to be tested. Jesus Christ

is the source and standard of truth, the one Truth of God for all men. In Him God turns in Grace towards us and makes Himself open to us, summoning us to be open to toward Him and to keep faith and truth with Him in Jesus, so that we may be true as God is true, and learn to do the truth as He does the truth.[TS 143]

It is tempting at this point to think that we are back with foundationalism; is not Jesus Christ our foundational axiomatic thesis from which we derive all our truth? This would again be to misunderstand Torrance's position for it is far more subtle. Torrance is keen to make the distinction between ultimate truth and our dogmatic formulations of that truth.[RET 50] Because of the limitations of contingent language and

categories, as we begin to encounter the truth of Christ through them and within them, we need to constantly change and modify our formulations as we discover the depth and transcendence of that truth. Our statements about God, no matter how basic, must always be seen as provisional and incomplete. Torrance introduces the idea of "fluid axioms" and calls scientific theology an exercise in "fluid dogmatics".[RET 49-50] Yes, we can be in contact with ontological reality, but that ontological reality cannot itself have the status of foundational axiom because ultimately it is non-verbal and beyond being "hammered down" in language. If we recall foundational epistemology as described in figure 1 in Chapter One, then it is easy to see that such a framework of knowledge could not operate with shifting and provisional axioms. Fluid axioms could only fit into a non-foundational epistemology operating locally in an integrated and open system of knowledge.[27]

Torrance isolates the underlying, fundamental problem here, and it is in the way we understand language. Although we use the same grammatical and verbal structures when we speak of realities in the world and when we speak of God, nevertheless, language operates in a completely different way in each case. Torrance says that the temptation is to try to coordinate our religious language with the language we

use to speak of contingent realities.[TS 75] This cannot be done. This is exactly the trap that the epistemological foundationalist falls into when he invests words with a one-to-one relationship with reality. Such a view of language clouds the distinction between the transcendent and the contingent and leads to logical problems. Yes, human contingent language does coincide and intersect with our speech about God in Jesus Christ, but to try to say that they are the same, fails to maintain the infinite differential between man and God and hence the freedom of the world over and against God.[TS 68-73]

It seems then, that it is logically possible that Jesus Christ can operate for us as a non-foundational ontological authority. A number of fundamental questions remain however. First, we need to establish that Jesus Christ is in fact the Word of God come to us. Second, if we can establish this, then we need to enquire as to what constitutes an appropriate personal response to the Word of God and how this source of authority can be appropriated to the Church and to human beings. This will be our task in the next two chapters.

All of this is not to suggest that Torrance's epistemology is without problems. Already we can begin to see a tight, systematic (non-foundational) system

evolving. Torrance's strident language should alert us to his intolerance of truth acquired outside of the tight strictures of his theology. Torrance bases his approach on the pivotal position of Jesus Christ. Epistemologically, Torrance does not appear to give the Holy Spirit much of a role in the process and certainly the relationship between Christ, God the Father and the world seems very neat, linear and mathematical. It is true that Torrance does not go so far as to say that God's action in the world is only about setting up a proper epistemological relationship between people and God, but at times he gets near to this position. This will become more apparent as we continue to delineate his work and particularly in the conclusion we will draw this out. Generally however, thus far, with some reservations, Torrance does seem to be offering genuine alternatives to foundationalism and non-foundational idealism.

END NOTES TO CHAPTER TWO

[1] A.N.S. Lane, "Accommodation" in S. B. Ferguson, D. F. Wright, J. I. Packer, eds, The New Dictionary of Theology (Leicester, Inter-Varsity Press 1988), p. 3.

[2] Don Cupitt, The Long-Legged Fly (London, S.C.M. Press, 1987).

[3] R.F.Thiemann, Revelation and Theology (Notre Dame, Indiana, Notre Dame Press 1985).

[4] ibid., p. 5.

[5] Thiemann, op. cit., pp. 3-6.

[6] ibid., pp. 16-17.

[7] ibid., p. 16.

[8] loc. cit.

[9] ibid., p. 17.

[10] Robert J. Palma. "Thomas F. Torrance's Reformed Theology". Reformed Review (38) no.1 Autumn 1984, p. 2.

[11] c.f. Schleiermacher's tendency to see God as "mute fact" led to Feuerbach's accusation that Schleiermacher's theology is simply a form of anthropology.[TS 31-32]

[12] Is there not a parallel here with the debate over the nature of sacrament, the Zwinglian view emptying it of ontological reference altogether, and Roman Catholic and Lutheran understandings of transubstantiation identifying a one-to-one relationship between the elements and the real ontological presence of Christ? Calvin's understanding of sacrament as a presentation of the Gospel to be accepted by faith, a real presence in the believer discerned through the outward symbols seems to be in line with Torrance's understanding of grasping ontological reality through contingent structures. In this way the sacrament also may be seen as "open concept".

[13] c.f. Discussion of Polanyi's multi-layered universe in Chapter 1.

[14] I. Howard Marshall, The Gospel of Luke - A Commentary on the Greek Text (Exeter, Paternoster Press 1978), p. 320.

[15] I. Breward, ed., The Works of William Perkins (Appleford, Abingdon, Sutton Courtney Press 1970).

[16] Cornelius Van Til, Defence of the Faith in six volumes (Philadelphia, den Dulk Christian Foundation 1967).

[17] Louis Berkhoff, Systematic Theology (Edinburgh, Banner of Truth 1941).

[18] J. I. Packer Fundamentalism and the Word of God (London, Inter-Varsity-Fellowship 1958).

[19] A modern expression of this can be seen in the United States and less so in Britain with lengthy and heated debates over words like "infallible" and "inerrant" referring to Scripture. A review of this debate from a conservative standpoint may be seen in D. A. Carson and John D. Woodbridge, eds, Scripture and Truth (Leicester, Inter-Varsity Press 1983). See also R. T. France. "James Barr and Evangelical Scholarship", Anvil: An Anglican Evangelical Journal for Theology and Mission (Vol 8, No. 1, 1991), pp. 51-64.

[20] Torrance shows how easy it is for man to fall into idolatry and quotes Calvin's Institutes I.XI.8. [TS 42]. English translation from Institutes of The Christian Religion translated by Henry Beveridge (Michigan, Wm.B. Eerdmans 1981).

[21] Torrance's understanding of biblical interpretation is discussed in Chapter five.

[22] This can be seen in the common useage of different words to explain the same biblical experience. For example one Christian group might refer to the "baptism in the Holy Spirit" whilst another might refer to "renewal", or "fullness". Such use of language can become hardened. Certain linguistic forms can become a test of doctrinal purity and a mark of belonging to a particular group.

[23] John Calvin, The Acts of the Apostles, translated by John W. Fraser and W. J. G. McDonald, eds, D.W.Torrance and T.F.Torrance (The Saint Andrew Press, Edinburgh 1965), p. 201.

[24] c.f. discussion of Newtonian forms of thought in Chapter 1.

[25] Thiemann, op cit., pp. 14-15.

[26] Torrance's understanding of natural theology will be discussed in Chapter five.

[27] Fluid axioms will be discussed further in Chapter 5 when we discuss the place of the scriptures.

Chapter 3

RECIPROCITY BETWEEN FAITH AND REASON IN THE STRUCTURE OF REALIST PERSONAL KNOWLEDGE AND THE NATURE OF CHRISTIAN TRUTH CLAIMS.

A discussion of the epistemic process
from the side of the knower.

If you do not believe, neither will you understand. Isaiah 7:9.[BSCL 4]

Belief in an external world, independent of the perceiving subject, is the basis of all natural science. A. Einstein, The World As I See It [London 1935] p. 60.

What scandalizes rationalist man is that in his search for ultimate objectivity he is bound unconditionally to contingent creaturely objectivity, in fact to the weakness of the historical Jesus.[TS 137]

Introduction.

Today in the West, and in other cultures that have felt the philosophical force of the Enlightenment it is widely supposed, both by the vast majority of uneducated people and also by a good proportion of the scientific community, that faith and reason are contradictory concepts. For most people it is assumed that in some sense, the "superior" knowledge that science has brought us either disproves Christianity entirely or at least

severely restructures and limits its claims to be true. In my own experience I can well remember my school physics master, on hearing that I had decided to study theology, taking me to one side and telling me that he could happily conceive of a universe without God, and that I was misguided and wasting my time studying something that science had made obsolete. He smugly "informed" me that most theologians in our universities no longer believe in God. In modern popular perception the scientist is still king.[1] We have no doubt seen the trick favoured by advertisers of setting a product in the context of a busy laboratory and dressing the man or woman explaining the product in a white coat. Scientific jargon is used to impress the viewer or reader. Despite the fact that most scientists would seek to disown it as "pseudo-science", such advertising shows how particularly science has the status of "ultimate knowledge" in the popular mind.

In the previous chapter we discussed the Incarnation seen by Torrance as the centre of theology, indeed the central event in history around which creation is organised. For Torrance, Jesus Christ is the place where we may know God himself in the creation. We left ourselves with the question of how we know that Jesus Christ is the place of this revelation. Certainly Torrance has received some criticism on this point. In a

recent review of Torrance's work Reality and Evangelical Theology, William J. Abraham has said:

Torrance simply takes it for granted as a fait accompli that God has made himself known in Israel and in Jesus Christ. I share this thesis, but this is something that the theologian must establish in some way or another rather than just present it in a take it or leave it fashion. Torrance, of course, believes that his realist epistemology secures his starting point. It does nothing of the kind. Formally we can agree that our thought about God must be controlled by the object of theology but this says nothing as to how God has actually made himself known. Torrance simply assumes that he has privileged access to God's self-revelation and then insists that it must control everything. It would be a godsend to theology if we could make such an assumption. However the radical diversity and disagreement that there is about conflicting claims to revelation explodes such a possibility.[2]

We will argue later on that Abraham in common with many others actually misunderstands the subtlety of Torrance's position, and more importantly the relationship between faith and reason in the formation of ultimate beliefs and the way we assess and attempt to verify those ultimate beliefs. But this is not the place to do this. Rather we must simply note the kinds of issues that are at stake here which centre around the justification of ultimate beliefs about the nature of ontological reality.

In order to begin to answer such complicated questions we need to look at the relationship between faith and reason and how we arrive at the basic

controlling beliefs that constitute the "fluid axioms" of knowledge.[3] Together with the Incarnation the subject of this chapter deals with the heart and inner dynamic of Torrance's thought, and it is here that Torrance is most rigorous and also complex. Torrance's own presentation is far from well-ordered or systematic. He tackles themes over and over again in different places in his writings, recombining ideas and applying his thought in different ways to different states of affairs. One can only really grasp Torrance through sustained and close study of his wide-ranging material, and only then does his profound and multi-dimensional vision begin to make sense to the reader. We must be only too well aware, therefore, of the difficulty of adequately systematising and summarising Torrance's thought and identifying its fundamental structure without detracting from its depth and consistent intelligibility. The attempt however, is certainly worth it, for as Daniel Hardy has said:

Torrance's position is the most highly developed version of realism, the realism both of scientific activity and of scientific belief, which is available in (and perhaps outside) modern theology, one conceived with the utmost strictness.[4]

As we shall see, it is indeed the questions of realism and idealism that Torrance is addressing here. What is fascinating is the way that Torrance arrives at his realist convictions through the reconciliation of

faith and reason. As in the last chapter, the central question that we must keep asking is, "what is the relationship between the structure and content of the human mind and absolute ontological reality?" If we stay with this question it will continue to provide a key to Torrance's work and also open up the vista of the question of freedom in knowledge which we have continually touched on throughout this thesis and to which we will return towards the end of this chapter. It is concerning this area of freedom, that Torrance's position begins to have limitations and difficulties when we look at the whole range of human life and activity.

1) Misconceptions concerning the nature and relationship of faith and reason.

Returning once again to the epistemological problem posed by Thiemann, cited in the previous chapter[5], we recall that Thiemann contrasted the need for revelation to be reasonable and the unique mode of knowing advocated by traditional orthodox understandings of revelation. A telling phrase from his argument occurs when he claims that theologians are

hard pressed to show how a unique content discerned by a unique mode of knowing can be justified with reference to an ordinary philosophical epistemology.[6]

In a sophisticated way Thiemann is contrasting truth derived from an act of faith and truth derived from reason. We shall argue that this fundamental understanding of faith and reason as contradictory, stems from a wrong understanding of the very natures of faith and reason themselves. This accounts for Thiemann's misunderstanding of Torrance's position that we have documented in the previous two chapters.[7]

In the world of science we have already hinted at some modern attitudes concerning the "supremacy" of science over other types of knowledge. Torrance himself gives a penetrating analysis of the factors operating in the modern mind that allows such attitudes to develop. Torrance's own review of the history of science is very detailed indeed and stretches over several works. He looks at the basic beliefs present in various scientific and philosophical world views. In essence he presents it as a battle between a Greek foundationalist world view (Torrance does not use the word foundationalism but this is clearly what he describes), with dualisms between the sensible and the intelligible, the natural and the supernatural, and the empirical and the theoretical, and a more unitary world view without these dualisms which issue from the Judeo-Christian tradition of creatio ex nihilo (creation out of nothing), the view that creation is not a necessary emanation from God but totally

distinct and yet totally dependent on him. Torrance summarises three crucial factors inherent in this tradition that totally contradict these Platonic dualisms. First, there is a belief in God as the creator of all and the source of rationality, which brought a belief in order and rationality in the universe. Second, there is a belief in the infinite difference between creator and created, and a rejection of any necessary links between creator and created. Space and time are also part of creation, not empty containers in God into which matter is injected. The rationality of the universe is distinct from God and yet dependent. Third, the belief in a transcendent God means that God in his dealings with the universe is free, and the universe has contingent freedom of its own. [DCO 3-4] In his work Divine and Contingent Order, Torrance plots the history of science and demonstrates how science has made dramatic progress in periods when this unitary world view has prevailed, and has been held back or distorted when the old Greek dualisms have returned to science in new guises.

It is just this sort of distortion or "methodological mutilation"[TCFK 86] in science that has led to "scientism" or what Torrance calls "positivism". In order to understand the inner nature of this methodological mutilation in much contemporary thinking,

both scientific and theological, it will be necessary to look at the way that Torrance sees the modern western mind as having developed under the influence of the Enlightenment, particularly Emmanuel Kant whom Torrance describes as "the prophet of the 'modern' mind"[TCFK 7], and then to examine more closely the effect of this on contemporary thinking, especially science.

2) The emergence of a priori rationality in the philosophical tradition of the Enlightenment with special reference to Kant.

In an important essay on the formation of modern modes of thought, Torrance traces the rise of autonomous reason; we shall draw heavily from this writing in this section unless we state otherwise.[8] Torrance discusses a number of different "enlightenment" philosophies but we shall look at the impact of Newton, Locke and especially Kant as being perhaps most relevant to our argument.

This autonomous reason finds its roots in Greek thought, where thought was separated from reality and the abstract structures of the mind used to interpret and describe nature. It develops in the ideas of Newton, who as we have seen in the first chapter, reinforced the idea of absolute mathematical space and time, following

the Greek tradition of understanding space and time to be a necessary emanation from God, an empty container into which reality is created by God. Because of this necessary connection between God and the universe, space and time are treated as fixed and unalterable constants and therefore ultimate, axiomatic guarantors of truth in a universe which is essentially self-contained and closed. The only exception is where God is required to fill one or two gaps in the workings of the system, and account for the small number of non-empirical realities required even in Newton's tight causal system.[TCFK 22ff] Newton was therefore able to derive his laws of motion seeing them as absolute laws of nature, prescriptive and universal. In this way we can see space and time acting for Newton as his foundational axioms, the absolute givens of his system.

Newton was sure that his laws of nature were derived entirely from the experience of reality through the senses and by repeatable experiment. Torrance quotes Newton's famous dictum, hypotheses non fingo ('I frame no hypotheses').[TCFK 16 c.f. STI 8] In other words Newton believed his own contribution to his discoveries was negligible. All he was doing was "reading nature". Torrance puts it like this, for Newton,

Science is the exact mathematical formulation of the processes of the natural world. Speculation is at a discount, but motion has unconditionally

surrendered to the conquering mind of man.[TCFK
18]

This concentration on the phenomenal as the only way to derive real knowledge led inevitably to the devaluing of faith as a legitimate way to learn about reality. This came to fruition in the philosophy of John Locke who in many ways drew up the classical statement of the contradiction of faith and reason. Since all knowledge comes from experience and argument from that experience, any so-called knowledge deriving from belief not grounded in this way, which is not demonstrable, is simply ungrounded speculation.[BSCL 7-8, TCFK 31-36] Here lies the source of modern scientism and blind faith in the certainties of science.

Torrance, however, has demonstrated that Newton himself underestimated the non-empirical factors in his own thought. He invented an algebraical calculus derived from non-observable realities and conformed his observation of bodies in motion to mathematical explanation.[TCFK 19] Newton and his followers believed that they were uncovering nature as it really was. To use our modern terminology, Newton and his followers believed themselves to be realists with a profound correspondence between scientific theory and ontological reality. For Torrance, however, it is clear that what in fact was happening was an abstraction from reality which

caused certain but limited disfigurements and distortions in the basic structures of knowledge as reality was forced into a tight Euclidean, mathematical system derived not entirely from nature but also from man's mind. Newtons "realism" then is no realism at all.

Torrance really uses this as his basis for his analysis of Emmanuel Kant. Torrance sees Kant's philosophy as an attempt to take these non-empirical, non-observable factors in the formation of knowledge more seriously, in particular the contribution of the knower to the form and content of knowledge. Kant's "synthetic a priori", or prior categories of the mind, represent this contribution. For Kant, then, knowledge has two components, the a posteriori phenomenal and the a priori theoretical. Keeping Newton's absolute space and time and combining them with these a priori conditions of knowledge led to a new level of necessity and determinism in the formation of knowledge. If Newton claimed that he "framed no hypothesis" then Kant made no such claim. For Kant along with space and time the human mind was the ground, constant and invariant of knowledge. The human mind, then, is actually the a priori in knowledge. The theoretical is not just given consideration in the formation of knowledge but actually has the place of creating knowledge. If reason for Newton was simply the workings of the mind on

empirically perceived phenomena, then for Kant reason took the place of autonomous master of that empirical data. Instead of simply being a matter of the mind "reading from the book of nature", reason itself, or the mind itself, is seen as an autonomous source of authority, the measure of truth. Torrance believes that this is basically the way that modern people think.

It must be noted that this is clearly the basis on which much theology was done during the 19th century and it continues to be an underlying assumption in much modern theology and ecclesiastical decision making where this enlightenment understanding of reason is swallowed largely uncritically.[9]

This conception of rationality flies in the face of the Judeo-Christian understanding of the inherent rationality of creation bound up in the idea of contingency, where matter is endowed with its own order and logic dependent on, but separate and free from, the rationality of the creator. For Kant rationality is constructed and given to reality by the human knower. Thus rationality is a priori; we come to our object with a prior rationality and way of understanding it. For the knower, therefore, even reality itself does not exist apart from pure reason. Torrance labels this "methodological objectivism", a pragmatic way of dealing

with and making sense of disparate sense experience and reaching a "structured co-ordination of sense experience which will be common to all men". In the absence of the control of a discernible rationality from the universe the human mind has to construct rationality in order to survive.[TCFK 74] Kant therefore leads the human knower into pure idealism. Because ontological reality cannot affect our theoretic structures in any way, our theories and beliefs about reality are simply useful constructs of our minds. It is our minds that construct what reality is. This is Kant's "Copernican revolution". This understanding Torrance shows to be the root of subjectivism, anthropocentrism and the phenomenon of technocratic man in the modern world.

Thus we see both the devaluing of faith as an appropriate mode of cognitive foundation and the elevation of reason to such an extent that it is the only way to ground the formation of knowledge, and give form and content to that knowledge. It is reality for us. It is independent of the control of ontological reality and unchanged by it.

It is interesting to see how these broad philosophical forces have manifested themselves in the modern world. The Lockean tradition came to fruition in the now largely discredited school of "logical

positivism" developed by members of the so-called "Vienna Circle" of the 1920's and 1930's with their emphasis on verification through experience.[10] This movement still holds sway in popular conceptions of science and knowledge. With its emphasis on supposed "hard scientific facts" it sits oddly with the modern legacy of Kant which has produced an emphasis on relativity in knowledge, subjectivism and scepticism about the very possibility of certainty. Indeed, in modern times, claims to any sort of certainty are viewed as manifestations of arrogance. The right of individuals to believe anything they choose is considered a foundation of civilised society.

Evident in all this, then, are the old dualisms of the Greek mind: dualisms between subject and object, between the empirical and the theoretical, between form and being or ontological reality and our understanding of the rational relation between things.

3) The practical effect of a priori rationality and epistemological dualism on contemporary modes of thought in science and theology.

This philosophical tradition continues to have serious effects on modern thinking in science, and particularly hampers theology both in terms of the

philosophical mind-set of many of its practitioners and in terms of the possibility of modern western man accepting its truth claims. Quoting Michael Polanyi, Torrance indicates the limitations that he feels that such a mind-set places on the formation of knowledge:

This concentration upon phenomena or appearances, upon observable and tangible magnitudes which are quantifiable, gave rise to what Michael Polanyi called the 'massive modern absurdity', the limitation of rational knowledge entirely to what can be tested by reference to observations or logically deduced from them.[BSCL 7]

And again, concerning the modern antithesis between faith and knowledge,

Michael Polanyi argued, in disrupting the balance of man's cognitive powers it damaged the very foundations of knowledge, and laid the basis for modern rationalism and scientism which have so crudely shackled the human spirit.[BSCL 8]

Torrance sees the problem in terms that could perhaps be compared to a two cylinder engine firing inefficiently and roughly on one cylinder:

Here lies the break by which the critical mind repudiated one of its two cognitive faculties and tried completely to rely on the remainder.[BSCL 8]

Torrance, then, does both science and theology an immense service in highlighting the damage done to the cause of truth that has been wrought, and points to presuppositions that are rarely considered or

challenged. Moreover, he gives a profound analysis of the actual effects of such rationalism in modern life.

Torrance points to the modern mistake, which follows Newton in believing that fundamentally, basic knowledge is directly derived from experience and that theories about the world are arrived at in this way through deduction and logical argument from basic sense experiences.[TCFK 76] In this way arguing in this foundational mode of thought "scientific certainty" is formed. Scientific truths have certainty since they are derived logically from absolutely certain axiomatic facts derived from experience. As we have previously indicated, Newtonian and Lockean empiricism is somewhat at odds with the philosophy of Kant; and this discrepancy can be seen in the modern world. This implicit faith in the truth of science does not take seriously the discrepancy between our concepts and theories and ontological reality as set up by Kant. This misunderstanding is common at a popular level and also amongst scientists who rarely give much consideration to their philosophical assumptions. Such scientism often ends up as a pompous exercise, "rubbishing" all other forms of knowledge and proclaiming science as saviour of the world and, given time, the answer to all man's ills. This crude version of science is to be contrasted with a tradition that takes Kant more seriously. This tradition

again starting with the basic raw data of experience, accepts Kant's assertion that there is no logical bridge between such data and our ideas about it. Theories and knowledge are artificial constructs placed upon that experience in order to make sense of it [TCFK 200ff] or "thought symbols" which can be organised into necessary logico-deductive systems so that scientific laws are nothing more than freely created sets of conventions for the most economical and effective organisation of observational data.[DCO 95].

This naturally leads to the tyranny of technology. Divorced from any ultimate meaning, the test of science is "does it work?" And if it does then we must do it. (Torrance gives an illuminating account of this in the final chapter of Divine and Contingent Order and as such it is a valuable Christian contribution to the current "green" debate.[11]) All this is because for the positivist scientist or thinker there are no ultimate non-empirical beliefs on which knowledge rests; indeed such things need to be discarded if the scientist is to be properly "detached".

Torrance at this point challenges the assertion made by positivism:

Far from achieving genuine detachment, however, positivism is actually attached to definite presuppositions which it will not allow to be questioned - that is to say, attached to

unreasonable beliefs disengaged from any ground
in the intrinsic intelligibility of the
universe.[TCFK 200]

Positive science itself, then, with its superior claims
to detachment and purity of thought makes definite faith
commitments. Perhaps a modern example of this kind of
thinking is in the recent work of the physicist Stephen
Hawking who, sticking closely to this tradition,
attempts to explain all things in purely causal
terms.[12][TCFK 61] Torrance is highly critical of this
kind of thinking and challenges it to examine its own
faith commitments found deep in its Kantian roots:

to claim that you strictly refrain from
believing anything that could be disproved is
merely to cloak your own will to believe your
beliefs behind a false pretence of self-critical
severity. The positivist doubts everything for
which he cannot give a logical explanation,
except himself and his belief in himself.[TCFK
200-201]

In theology, Torrance is no less critical of the
effect of these thought forms. The dualisms between
subject and object have manifested themselves in wedges
between the objective, but practically unattainable and
unknowable, life of the historical Jesus and the
subjective understanding of the Church. The objective
content of faith is seen simply as impositions on the
original events by the early Church and therefore of
little value.[TCFK 90-93] As in science this manifests
itself in mutilations, "artificial and unnatural

frameworks...produced by scholars" to replace the evangelical material.[TCFK 91] Thus Kant is followed to the letter by many theologians. This manifests itself in existentialism and phenomenism in theology where theologians have tried to flee from the ramifications of science,

only to founder in the morass of historical relativism in which Jesus, in spite of our attempts to hold onto Him, keeps vanishing from their instruments of observation.[GAR 3]

Still other theologians try to find answers in a sociological approach to theology,

where they are stranded in the yawning gap between modern culture and historic Christianity, in which God interpreted as a function of of man's ultimate social concern keeps dying out on them.[GAR 3]

The result of all this for Torrance is that:

Multitudes of Christian people now find themselves in the wilderness of irrationality and confusion.[GAR 3]

It is interesting to note that much that Torrance says about the dogmatism of positivism in science could also be applied to much so called "liberalism" in the theological world. The phrase the "dogmatism of liberalism" may appear contradictory, but if Torrance is right then some forms of theological liberalism resting

on presuppositions that are not to be challenged, are perhaps more intolerant and narrow minded than the strictest fundamentalists. Both alike are rigorous foundationalists but with greatly differing foundational axioms. The liberal position based upon the foundational axioms of the absolute categories and primacy of the human mind over the external objective world and the supremacy of autonomous reason.

For those outside, faith is devalued as subjective opinion or prejudice, held in contradiction to the "facts" of science. In the words of a child I know, "religion is believing 101 things that you know can't possibly be true before breakfast"! Here is the perceived contradiction between faith and science or reason with which we began this chapter.

4) The overthrow of dualism in modern science and philosophy leading to a reconciliation between faith and reason and the possibility of a realist theory of knowledge.

i) Torrance's position.

We have already indicated that Torrance is unhappy with the idea of autonomous reason with its dualisms between subject and object, empirical and theoretical

and form and being. These dualisms lead, as Torrance has shown us, to a radical disjunction between reality (created and uncreated) and the human mind. Our theories and ideas are no more than pragmatic constructs. In other words the position of thorough going rationalism is one of idealism. We shall see that Torrance's position, however, is in sharp disagreement with this general picture of the significance of human knowledge. Torrance gives a much more optimistic assessment of human knowledge. He is sure that there exists between the world and the mind what he describes as "structural kinship".[TCFK 85, STI 9]] In other words there is a profound harmony between the theoretic concepts of the mind and the way that the universe and God are in themselves. Torrance's position is one of "realism". We will need to return to this notion of realism later in this chapter, for his position is not one of naive nominalism or extreme realism which asserts a necessary and absolute correspondence between mind and reality.[13] His realism necessitates a struggle and a process in the acquisition of truth.

ii) The impact of modern science on dualisms in contemporary thought.

In summary, the philosophical legacy of the Enlightenment can be seen in terms of a dualism between

subject and object. Starting from our "raw" experience of the world it became impossible to say whether the order and intelligibility we find in that raw experience is inherent in the nature of things or whether, as Kant insisted, the perceived order was an invention of the rational mind to cope with sense experience. Put in this way we see that a dualism is entailed between form and being. Form refers to the interrelations and interactions between realities which to us appear orderly. The question is whether or not there really is order and inerrant rationality or whether this is simply the mind's invention.

How can Torrance overcome this impasse in the fundamental foundations of knowledge without escaping into the existentialism, phenomenism and sociology that he so roundly criticises? Or does he simply accept the position of the sceptic? Certainly Torrance is no "ostrich", simply trying to ignore the Enlightenment as some fundamentalists do, rather as we shall see, he faces it head on and recasts its assertions in the light of the revolutionary discoveries of Einstein's relativity theory and quantum theory. This is one of the places where Torrance's deep understanding of philosophy, theology and science works together in a most fascinating way.

Torrance faces these issues on three fronts, the theological, the philosophical and the scientific. Essentially these three disciplines face the same problem. In the previous chapter it became obvious that the epistemological problem we examined is the same problem that we are faced with here. We have examined the problem in this chapter primarily in terms of philosophy and theology. For Torrance the three disciplines are heavily entwined and mutually dependent.

In terms of each of these disciplines Torrance is happy to accept the fact that there is a fundamental disjunction in the logical basis of knowledge. Torrance states this over and over again in many different ways. He is sure, logically speaking that there is simply no link between our thoughts and statements and theories about reality. This is nowhere more so than in the discipline of theology, with the infinite differential between man and God that we examined in Chapter Two. For example, Torrance says

We grant that considered entirely and only in themselves theological statements have no real truth and we admit that we cannot just say how they are related to the reality which they indicate, for they have no claim on God that He must be their object or content.[TS 184]

He continues in the same section speaking of science where the referent of statements is not infinitely

beyond the statement itself, and says that this fundamental logical gap applies to science as well. In Space Time and Incarnation Torrance considers the two alternative possible courses of action that face him. The first is utter scepticism about the possibility of any real knowledge of the world; even to articulate that scepticism would be a meaningless act. The second alternative he describes as

to ask questions only within the circle of the knowing relationship in order to test the nature and possibility of rational structures within it.[STI 54]

No doubt at this stage this statement seems rather opaque to any reader brought up in the western rationalist tradition and indeed it is at this point that Torrance is conceptually difficult, Daniel Hardy gives us a clue here as to why this might be:

It may be that the problem of the ineligibility of his account of his position is connected with the nature of the position that he adopts, which verges on the private and publicly inexpressible.[13]

It is the very form and content of his position, and its subtlety, that makes it difficult to understand. The very nature of the link between thought and reality that Torrance stands for is essentially non-logical (not illogical), and therefore hard for western rationalism to comprehend easily. We shall see that the nature of

this link is intuitive and it is also true that Torrance's argument itself rests on this non-logical process; it takes something of an "heuristic" leap in order to begin to grapple with it. The concept of intuition and heuristics will be explored later.

We have spent much time discussing Torrance's non-foundationalist position and it is here that he displays his non-foundationalism most clearly. Because of his belief in the Christian understanding of contingency, he rejects any necessary connection between God and the world. This fundamental impasse in the foundations of knowledge demonstrated in the Enlightenment, Torrance is happy to accept, for this to him is what is required by the doctrine of contingency. There is no necessary logical link between the world and God, and therefore no sense in which it can be claimed that God logically and necessarily guarantees the foundations of knowledge. We are therefore, unable to root our statements in any foundational statements which come to us as underived, basic, and having direct linkage with ontological reality. Such statements simply do not exist for the theologian, the philosopher or the scientist.

As we have seen, although Torrance refuses to accept a position of scepticism, he is sure that even though we cannot logically and necessarily ground knowledge,



nevertheless there exists structural kinship between the mind and the world. A proper attitude to reality then is one of "awe".

Rightly taken, however, the realisation that we cannot state in statements how statements are related to objective existence keeps us in a state of humility by reminding us of the discrepancy between our statements and the realities they denote, and keep us in what Einstein called a a state of 'awe', for it tells us that although we cannot account for the rationality or comprehensibility of existence, it nevertheless shows through and keeps commanding our recognition-without that humility and awe there could be no scientific advance in the discovery of new facts.[TIR 56, cf TS 184].

Even though we cannot say exactly how it happens, nevertheless there is a link between thought and reality. Isn't this simply optimistic, wishful thinking on Torrance's behalf? The truth, however, is that Torrance is not so naive.

Torrance's realism and optimism about the possibility of knowledge of the real world is rooted in the startling progress of modern physics, particularly James Clerk Maxwell's discovery of the indivisible field, Einstein's relativity theory and Quantum theory. Such esoteric subjects perhaps seem odd places for a theologian to look into considering basic epistemology; and certainly Torrance is probably unique in applying the lessons of modern physics in this way in such depth.

Torrance sees the impact of modern physics in terms of a slowly moving seismic shock rumbling through society.[TS 93] Its ramifications are massive for the way we view the world and ourselves in the world, but nevertheless we are slow to fully understand its implications for the way we think. Clearly most people outside the scientific community have not even begun to understand relativity and even within that community scientific practice and philosophy have not yet caught up with the revolution in thinking that these discoveries require. Thus empiricism, positivism and scientism are still widespread.

Fundamentally, Torrance shows how modern physics has thrown over the cosy world of Newtonian physics with its dualisms of the observable and the theoretical, subject and object. It has done this by showing the real existence of non-observable realities, and demonstrated there to be a real but non-logical relation between theory and reality.

How has it done this? We have seen how for Newton the absolute guarantors of his closed system were space and time necessarily emanating from the divine.[TCFK 68] This allowed Newton to conceive of a strict, mathematically precise system and begin a scientific tradition that sought to explain the universe solely in

terms of itself, a closed system. This conception of space and time was, as we have seen, at the roots of both Lockean empiricism and Kantian scepticism. In Divine and Contingent Order Torrance plots the course of the doctrine of contingency in scientific thought and demonstrates that because of what he describes as the double aspect of contingency[DCO 71], the fact that the universe is dependent on God and yet not necessarily connected to him, the scientist is always tempted to ignore the idea of contingency altogether and allow methodological atheism to take a dogmatic stance and resolve contingency away. Torrance presents the history of science, then, as a battle for this concept and demonstrates how science at various points has gone astray when continece has been lost. But because as science argues against contingency it argues against its own foundations and basic beliefs, contingency is always forced back into the picture however unwillingly.[DCO 41] Science is rather keen on sawing through the branch it sits upon, and when the branch begins to creak and shake it has to curtail its sawing activities!

The restructuring of Newtonian physics is for Torrance the prime example of this phenomenon. We have already noted how Newton was forced to accept a limited role for God in his system in order to account for certain irregularities. His system "related to 'the

counsel' of a 'voluntary and intelligible Agent' beyond it".[DCO 8] In other words, the defects of Newton's system were made up by God whose role would get smaller and smaller as the system was refined. We have also noted how Newton had to invent non-empirical algebra in order for his theories to work. So clearly even Newton accepted that his system was not entirely watertight. These discrepancies and problems increased as time went on and it was discovered that more and more scientific situations were not explainable in Newton's terms. Refining the theory worked up to a point but there came a time when it was realised that there was something fundamentally wrong with Newtonian physics as a way to describe global reality. The sheer reality of contingency was pressing through and, rather than a world view that sought to logically tie everything up in mathematical formulae, a revolutionary, new theory was required that would describe reality as it was found and not seek to force a universal system on it.

This came in the form of Einstein's relativity theory. Einstein's revolution came in the form of the realisation that space and time too, were not absolute unchangeables but created realities also. He found both space and time were also integrated into the ongoing dynamic processes of reality, in other words a four dimensional space-time continuum.[DCO 12-13] In this way

Einstein affirmed the Judeo-Christian doctrine of creatio ex nihilo, creation out of nothing. Space and time were not pre-existent emanations of the impassible God, the unmoved mover, but created entities. In this way Einstein dashed all hope of conceiving of a universe explainable within itself. The logical and causal foundations of such a closed universe are completely removed. What is now forced upon us is a conception of a universe whose ultimate rationality must lie outside of it. The universe of modern physics is open to realities beyond itself, and only in these which are unknowable by logical necessary argument does it find its full explanation. The science of empiricism and abstraction are thus overthrown.[TCFK 66]

We described this as a restructuring of Newtonian physics. This is indeed so, for Torrance points out how Newtonian physics is still valid as it has always been in limited applications. It is for Torrance a "lower level of scientific interaction with nature", not valid as a complete description of everything, but valid if we consider it as open and completed and explained in terms of a higher order of reality which is itself open.[DCO 80][14]

Thus contingency has returned once again. Kantian scepticism has been ruled out by the sheer success of modern science. Torrance writes:

The more deeply scientific inquiry and theory have been able to penetrate into the inherent intelligibility and inner structure of the universe at all levels of its manifestation, the more it has been able to grasp reality in all its depth in such a way that it has had to shake off the influence of Kant and give the really modern mind a radical turn which has set it back upon God-given intelligibilities and objectivities of creation.[TCFK 45]

What new science calls for then is a total restructuring of our epistemological foundations and particularly the relationship between the empirical and the theoretical that had been split apart in the Enlightenment.[TCFK 86] This is because of the integration of space and time into the dynamic processes of nature which means that the observer too, acts on and is acted on by reality. The dualisms between form and being, subject and object, real and apparent simply cease to be conceivable.[TCFK 42] This undermines Kantian scepticism since space and time are found not to be abstract necessary concepts applied to the world prescriptively in order to make sense of sense experience, but actual realities embedded in reality. Order and rationality in reality are therefore not the invention of the mind but independent and existing within that reality. Form and being, and the empirical and theoretical are thus united.[TCFK 72-73] It is these theoretic structures that are regulative

in grounding knowledge. Naturally, empirical experience varies and is not constant but non-empirical realities, the fundamental order in reality is invariant.[TCFK 89] Torrance calls these two aspects of reality, "perceptible realities" and "imageless relations".[TCFK 89] Therefore the empirical and theoretic components in knowledge are not just inventions but real relations grounded in the nature of reality. This is where Torrance's realism is found. Fundamentally the mind is a framework combining an inter-relation of empirical factors and non-empirical theory and is a reflection of the real world. The mind, therefore, does not prescribe the nature of reality, rather the mind operates in a descriptive manner and is formed in interaction with ontological reality.[TCFK 90] Knowledge is therefore "empirico-theoretical" in which the real unified structures of reality form the human mind.

At this point it is interesting to note that Torrance does not totally reject Kant's philosophy. We have seen how Torrance accepts the fundamental logical impasse at the foundation of knowledge. But nevertheless for Torrance real knowledge does occur. We cannot say how this happens but nevertheless it is a fact.

for there is not and cannot be any logical bridge between ideas and existence. There is indeed a deep and wonderful correlation between concepts and experience,...but since there is no logical bridge the scientist does not work with rules for inductive procedures, and cannot

finally verify his claims to have discovered the structures of reality by logical means.[RST 76]

Therefore just as Torrance accepts a place for Newtonian physics in a limited field, when seen in the context of a larger open system, so he sees Kant's thought operating in this way also. Kantian concepts are useful and necessary to keep us aware that fundamentally empirical and theoretical concepts are fused together in reality and knowledge and for reminding us of the impossibility of deriving knowledge of reality by logical deduction from sense data alone. So for Torrance, Kantian concepts

arising out of the co-ordination of the theoretic and the empirical components of scientific knowledge, but now reconstructed and recast through controlling reference to the inherent intelligibility of the space-time universe, may still have at least a critical and indeed a healthy role to play in the philosophy of natural and theological science.[TCFK 45]

iii) The overthrow of a priori, autonomous reason and the establishment of non-foundational links with reality.

Since new physics has shown the existence of real theoretic structures embedded in reality, Torrance believes that this has serious ramifications for our understanding and definition of rationality. Reality now

comes before us with its own rationality and reality independent of our own rationality. Thus the reality of the objective world is established for the knower. Its reality and rationality is not given and guaranteed by the foundational axioms of absolute space and time and no longer can we say it is causally conditioned by the categories of the mind. It has its own contingent and distinct rationality. Torrance therefore calls for what could be called an epistemological inversion. Rationality is not given to reality by the knower in some a priori way, rather rationality is a posteriori and given by the object of our knowing.[TCFK 74-75] That is not to say that we can come with blank minds, but rather by a process of interaction our minds more and more conform to the rationality of the universe. We will discuss this process in more depth later on.

In all this, however, there is still the matter of the logical impasse between the knower and reality. How is it that this rationality may be apprehended by people? How do theoretic non-empirical realities present themselves to the mind; what is the nature of this process? Torrance is sure that this is a non-logical happening. To the question, how does this happen?, Torrance replies that we simply do not know, for

it is impossible to say precisely how concepts are correlated with experience, or to devise a clear-cut systematic method for that

derivation.[TCFK 77]

But Torrance is sure that nevertheless this link with reality does exist. As we shall see, this is not a naive approach but one based on the way that Torrance believes the world actually to be.

The nature of this link then is one of "intuition". We must be careful at this point not to misunderstand Torrance. The word "intuition" today has come to have associations with non-cognitive acquisitions of knowledge, ecstatic non-rational experiences. Its definition today is imprecise and diffuse. This often leads to serious misunderstandings both in the Christian world and outside also. Particularly in the modern charismatic movement, a poor understanding of intuition has led to emphasis on feelings at the expense of rationality in faith. Torrance's use of the word is in marked contrast to this kind of understanding. Let us look for a moment at Torrance's definition of intuition:

this is the level on which we participate in the natural organisation created in the empirical field under the compelling structure of objective reality, and thereby gain our initial insight into the fundamental pattern of things and acquire the first significant clues which prompt and direct further inquiry at a deeper level.[TCFK 93]

This intuitive act in which we gain knowledge about an

object's rational form is primarily guided by that object. For Torrance, then, intuition is a highly rational and controlled act having little to do with ecstasy or feeling. It is at this point that Torrance most clearly shows the influence of the chemist and philosopher Michael Polanyi, for it was Polanyi that Torrance recognised as pioneering this understanding of intuition.

It is intuition that frees us from imposing our own rationality on reality. We are not building up theories of reality on the basis of what we already know by logical deduction, but we are freed to encounter reality as it really is and attend to the dynamic nature of the field in all its complex relationships. Thus the intuition involves an heuristic leap, an unaccountable and new movement of thought that could not be predicted based on previous knowledge. In this way our prior knowledge is altered in the encounter.[BSCCL 138] Torrance very much conceives the intuitive act as a creative act on the part of the knower. Although the intuitive act involves creativity on behalf of the knower this does not mean to say that reality is the invention of the knower, for ultimately the process is controlled from the side of the object.

Perhaps a useful analogy to help us understand this difficult concept would be that of a person trying to find a particular radio station. He begins by making an approximate guess as to its location on the dial. This is a creative action. As he gets nearer the station, so his guesses become more and more informed until finally after much refined guess work he is perfectly tuned in. Intuition is in a sense rather like this. Ultimate objective control lies with reality but nevertheless the knowledge gained on the way to the apprehension of reality is influenced by the knower's own creative acts. Torrance himself cites the analogy of a man doing a puzzle; he certainly makes a contribution to the end product, but clearly the end product is controlled by the nature of the puzzle. It only has one right answer.[TCFK 79]

It is our experience of nature and reality that leads us to these heuristic acts, for Torrance sees them combining with what Michael Polanyi called the "tacit dimension" (a framework of theory and belief which we possess but cannot completely state).[15] This pre-existent framework of knowledge, which is too large and complex for us to hold totally in our minds, combines with sense experience in an involuntary and unconscious way and produces the "clues" that lead our minds to intuitive acts.[TCFK 78] In this way the

disparate sense experience manifests its inherent form and rationality in a new way. Knowledge is thus given relation to ontological reality in a definite way. Basic concepts may be derived, basic beliefs formulated, but in a non-logical, non-foundational way. As Torrance has said,

the connection of theory with experience is something that can only be experienced.[TCFK 80]

In summary then, it is clear that Torrance is proposing a radical move away from autonomous a priori rationality which prescribes the form of being. For him things have rationality in themselves and this rationality is given to the knower in an active way by the object. This occurs non-logically in intuition as we engage with and try to discover more about the nature of reality. Rationality is therefore not gained by detachment from the object but by our openness to it. Torrance has said that "Reason is our ability to recognize and assent to what is beyond it".[TS 11] To be rational, then, is to think in accordance with the object to which we are attending. Torrance sees rational thinking as

a mode of disciplined thinking in accordance with the nature of things and controlled by the consistent structure of their intrinsic order.[TCFK 88]

Thinking is therefore controlled by objective reality.

This entails a radical restructuring of the human mind and epistemological framework,

a radical conversion of all our analogies, so that wherever we are tempted to use them as archetypal analogies they are restored to their true ectypal function in our knowing of Him.[TS 133]

In this way, and only in this way, can we really learn about reality as our presuppositions and indeed our very questions are restructured by reality.[TS 120-121]

This for Torrance is the nature of repentance (metanoia), a radical self questioning that progressively opens us up to objectivity.

The refusal to be bound by the rigid framework of our previous attainments, the capacity to wonder and be open for the radically new, the courage to adapt ourselves to the frighteningly novel, are involved in the forward leap of scientific research, but in the heart of it lies the readiness to revise the canons of our enquiry, to renounce cherished ideas, to change our mind, to be wide open to question, to repent.[TS 122]

Torrance thus conceives the rational process as one in which, as we allow our minds to rest on reality, they are gradually changed and restructured. This involves a type of questioning that does not predict the answer in its statements as assumptions and therefore the very structure of our questions may be changed in the encounter; rationality therefore entails openness to the startlingly new.

iv) Faith versus Reason?

The restoration of faith as an essential component of knowledge is now assured. This is because at the root of any rigorous scientific enterprise there must exist basic beliefs about the nature, rationality and form of reality.[BSCL 4] It is because these basic beliefs are derived non-logically that they rest on an act of faith. It was the devaluing of faith as an appropriate source of knowledge that led to the break in western philosophy between reality and thought.[BSCL 9] The attempt in science to dispose of all prior belief and "superstitions" led not to impartiality and detachment, but to a complete unhinging of science from reality, since the very nature of that reality requires this non-logical method of apprehension.

Torrance's understanding of faith is very far from that of existentialism. It is not a blind leap into the dark, desperately hoping for solid ground on the other side, but a thoroughly rational act. Torrance believes that Soren Kierkegaard has been largely misunderstood on this very point. His "leap of faith" was actually a reasoned act in response to truth.[TS 2-7, 154] Torrance thus places himself directly in the tradition of John Calvin.[16] This is particularly clear where at one point he defines faith as

the orientation of the reason toward God's self revelation, the rational response of man to the Word of God...a fully rational acknowledgement of a real Word given to us by God from beyond us.[TS 33]

This Calvinist tradition goes against much modern Christian teaching, where faith is seen in ecstatic, mystical terms as a feeling or something to be propagated by technique or spiritual exercise. It similarly stands firm against the fideistic tradition with its rejection of the rational element altogether. The bringing together of the rational and the intuitive aspects of knowledge is only possible with the ending of the dualism between form and being and hence the subjective and objective parts of the knowing relation.

It is the recognition of the personal contribution to knowledge that allows faith and reason to be brought together. In this emphasis on personal knowledge Torrance closely follows Michael Polanyi. Torrance flies in the face of those who devalue faith as "speculation" and "personal prejudice". Rather, for Torrance, it is the act of faith in the intuitive, heuristic movement that brings rationality to our thoughts and concepts. He boldly states, echoing St Paul, that faith "is the opposite of a merely subjective state of affairs".[BSCL 3]

It is clear that there is no logically provable basis for science or indeed any knowledge. The alternatives are clear - either complete scepticism, a pragmatic approach that takes the attitude that it is simply better to proceed without an adequate philosophical basis, or a refusal to face the facts as in naive scientism. Torrance demonstrates that even the most rigorous science must rest on decisive faith acts if it is to operate at all. These include a faith in the rationality of the universe, faith that it is possible to grasp reality with our thoughts and concepts, and faith that some things are true in themselves.[BSCL 9] This is where Torrance's epistemological inversion is so crucial. Instead of us imposing a rationality on reality it has become clear that it is contingent reality that possesses rationality in itself. We ourselves are rational only when we adopt the mode of rationality of our object. The rationality of reality is not accessible to logical explanation. It is, then, through the intuitive faith-act that our thoughts and categories take on rationality. To reject faith as a constituent of knowledge is to plunge into the deepest irrationality. It is only in the personal intuitive contribution to knowledge that we can penetrate the deep structure of rational form in the universe. Without this link with reality we are condemned to abstractions based on our

empirical observations of disparate data. Without the intuitive, sense data must remain irrational and disjointed. Therefore in knowledge there is a deep integration of faith and reason. As Torrance says:

it is irrational to contrast faith and reason, for faith is the very mode of rationality adopted by the reason in its fidelity to what it seeks to understand, and as such faith constitutes the most basic form of knowledge upon which all subsequent rational inquiry proceeds.[TCFK 194]

The common view that religious belief and science are inevitably in conflict, or the idea that faith is to be excluded from hard-headed rational activity is shown to be a fallacy. As such, Torrance provides a deep challenge to modernity. Religious knowledge and scientific knowledge do not differ qualitatively or methodologically. Scientific knowledge is not somehow superior or more firmly based. They differ solely in that they speak about different objects and realities and therefore operate with differing modes of rationality appropriate to their object. Both are rational when they are open and adapted to the rationality of their respective objects; for science it is the universe, for religion it is God. Both operate in the realm of faith.

v) Realism.

In our first chapter the idea was introduced that Torrance held to a position that could be described as "non-foundational realism". The integration of faith and reason is at the heart of this state of affairs. The way that Torrance has integrated faith and reason now allows us to explore and clarify this more carefully.

Thiemann, we recall, could not conceive of a non-foundational system that had real grounding in reality. The idea of realism in non-foundationalism seemed a nonsense to him. At the centre of all of this, is the function of basic beliefs on which knowledge is grounded, basic beliefs about the universe and God. We have seen that these basic beliefs and theories are arrived at non-logically through the act of faith in intuition. It is here that our frameworks of knowledge are open at their boundaries to reality. Obviously such beliefs cannot operate as foundational axioms for there is no logically provable link between them and reality. Basic theories therefore, are more than pragmatic symbols that allow us to impose order on sense experience. The theoretic structures of the mind are not merely useful ideas used to organise disparate empirical data. They are non-logical penetrations into

the deep theoretical structures of reality itself. Their non-logical and personal nature means that unlike the archimedean pivotal points of a tight Euclidean foundational system they are always open to revision and change as we allow our rationality to fall under the rationality of our object more and more.[TCFK 90] Hardy points out that in fact Torrance's realism is of a very specific kind indeed.

the term realist must be used with some caution for Torrance. If realism means a necessary correspondence between reality and thought, such as medieval theology asserted by the 'analogy of being', he is not a realist.[17]

The relationship between our minds and reality, the structural kinship that Torrance writes about, is not a necessary relationship. There is not an automatic one to one relationship between our minds and being. It is non-logical in its nature. It occurs only as the knower allows his own rationality to be formed by the rationality of reality in faith. Torrance's non-foundationalism finds its realism in ultimate beliefs that are grounded in reality in a non-logical, unexplainable way. Torrance's open system is thus shot through with truth intuited at its boundaries, rather than resting on absolute unalterable givens. This is Torrance's realism and its subtle formulation and basis in reality prevents Torrance from falling into the

crude realisms of fundamentalism and fideism in their foundational world views.

Summary.

We have now laid bare the main structure of Torrance's epistemology. Torrance has delineated an epistemology that allows for realism in statements about the world and God without falling into the traps of foundationalism. Plainly Torrance's is an unusual position; non-foundational realism is not an option considered by many others. His position is subtle and sophisticated and offers an exciting way forward, not just for the theologian, but also for the scientist; indeed for almost every other discipline of human life. The ramifications of Torrance's thought go way beyond the theological world. He has debunked once and for all the "old chestnut" of the contradiction of faith and reason, and offers a strong challenge to scientists and theologians to think in a modern way, taking seriously new physics with its rejection of dualisms in general. His use of the concept of intuition, operating non-logically in the knowing process, explains the inner workings of realism in non-foundational systems and gives a deep and profound meaning to the nature of rationality. We have seen how his critics base many of

their objections to his epistemology on false epistemologies that he himself proves to be untenable.

In terms of theology, Torrance is setting forth an embryonic programme to supersede the old and tired paths of fundamentalism and liberalism and opening up a way for Christians to address the world authoritatively, credibly, and in a truly modern way.

This is not to suggest that Torrance has got it all right, we noted previously how he has a tendency to see everything in terms of an epistemological relationship. Faith is seen therefore, strictly in terms of a rational response to reality. This is fine as far as it goes, but surely faith in Christian experience and faith as described in the Bible is a much richer concept. Torrance seems to limit human response to God to a purely rational event. Whilst we would agree that the rationality of faith is a crucial element, we would want to insist that it is more than this. Faith is also emotional and has elements of illogicality since it is a human response and that is what humans are like. At the end of the day human beings are so much more than rational machines.

This tendency to reduce people to merely rational beings has serious consequences for a total

understanding of mankind in the world and in relation to God. Clearly, many activities that people engage in are not totally rational, art is a good example of this. If we were to reduce all of human life down to what is rational and what is a proper response to reality, much of value would be lost. If mankind is only intended to make "right" responses to reality, then spontaneity, creativity, and the richness of human life in all of its diversity is lost.

We will expand these criticisms in the conclusion.

The sheer rigidity of Torrance's position does cause problems, and his vision, if taken whole, places serious restrictions on the scope of human life. However, these flaws do not detract from the main achievements outlined in this chapter. As we have insisted all along, the main "bones" of his epistemology offer a real way forward if restructured in ways that we will outline in the conclusion.

END NOTES TO CHAPTER THREE

[1] Although this is the view taken by the vast majority of the lay public, there are today clear signs that this implicit faith in the ability of science to answer everything is at last breaking down in the popular consciousness. The resurgence of "alternative" therapies and the rejection of scientific explanations in the modern "New Age" movements can be seen as an opposite reaction to the tight "scientism" and rationalism inherent in positivist science. Gradually people are realising that science does have limitations. This is particularly seen today in the area of medicine. Torrance predicts this sort of reaction.

One of the tragedies of positivism is that in discounting the fundamental role of belief in science it makes science essentially different from, and cynically superior to, all distinctively human beliefs, and every area of human knowledge and behaviour affecting our daily and basically human life. In other words, positivism drives deep wedges between its extensive abstractive operations and the very foundations of human life and culture - hence the deep splits in our civilisation which it has fostered.[TCFK 201]

In this sense the modern "New Age" phenomena can be seen as a cry to be released from the artificial strictures of rationalism and a plea to take seriously the distinctively human, non-rational apprehension of non-empirical realities. In throwing out the rational components of knowledge altogether it has however, largely become based on fantasy, wishful thinking and superstition.

[2] William. J. Abraham. Review of RET. The Thomist (49) April 1985, pp. 306-310.

[3] Fluid axioms are discussed again in Chapter 5

[4] Daniel. W. Hardy. "Thomas F. Torrance" in David F. Ford, ed., The Modern Theologians (Oxford, Basil Blackwell 1989), vol 2, p. 86.

[5] Chapter 2, p. 2.

[6] R.F.Thiemann, Revelation and Theology (Indiana, Notre Dame Press 1987) p. 16.

[7] It is interesting to note that the argument that will be outlined in this chapter is very much paralleled by a tension in theology seen by Jürgen Moltmann [see J. Moltmann, The Crucified God (London, S.C.M. Press, 1973) pp. 7-25]. Moltmann describes what he calls "the identity involvement dilemma". When the church seeks to be relevant to modern man, in terms of its agenda and action in the world, it can often lose its Christian identity. When the Church seeks to assert its distinctive Christian identity it runs the danger of becoming irrelevant to those outside of its inward looking self. These two temptations always exist for the Christian church, and examples of groups of Christians who have fallen into each trap can be seen all over the modern Church. Moltmann asserts that only if the church is focused on the cross of Jesus Christ can it truly find both relevance and identity.

Christian Theology must be a Theology of the cross, if it is to be identified as Christian theology through Christ. But the theology of the cross is a critical and liberating theory of God and man. Christian life is a form of practice which consists of following the crucified Christ, and it changes both man himself and the circumstances in which he lives. To this extent, a theology of the cross is practical theology. (The Crucified God, p. 25.)

In other words relevance and identity are not contradictory when put in the context of Jesus Christ, or to put it in the language of Torrance when Jesus Christ takes his place as the proper object of theology. The search for either relevance or identity to the exclusion of the other could be seen to be the manifestation of a lack of understanding of the reciprocal mutuality of faith and reason in the formation of belief. Those emphasising the faith aspect of Christianity tend towards the emphasis of identity and those emphasising the rationality of Christianity want to promote relevance. This may be a crude analogy, but nevertheless I think, possessing more than a fragment of truth!

[8] "The Making of the 'Modern' Mind from Descartes and Newton to Kant" in TCFK p. 1ff.

[9] For the Anglican there is special interest here; for often we are told that Anglicanism is based on a three-fold cord of authority comprising of, scripture, tradition and reason. We shall however go on to demonstrate with Torrance that reason is not a source of authority and can not operate as such. In a review

of Lesslie Newbigin's recent work The Gospel in a Pluralist Society (London, S.P.C.K. 1989) Bishop Michael Nazir-Ali reinforces this. Speaking of the threefold view of revelation he says

This is clearly a misunderstanding, as in all fundamental documents Anglicanism declares its belief in the normativeness of Scripture. Tradition being seen as secondary and derivative. Reason, moreover is not a source of authority but a way of apprehending the authenticity of authority in revelation. It may be that the Reformers and the Caroline divines were mistaken in their understanding of Reason as a universal faculty which is the same for all human beings, whatever the age or the culture in which they live. Indeed contemporary Anglican understanding is precisely that the universality of the Gospel involves its capacity to appeal to the 'reason', that is the values, tradition and intellectual idiom, of every culture. The 'reason' of every culture is particular to it and it is the glory of the Gospel that it can appeal to the 'reason' of each culture (this is the burden, for example, of the Inter-Anglican Doctrinal Commission's report For the Sake of the Kingdom).

[Michael Nazir-Ali, review of The Gospel in a Pluralist Society, by Lesslie Newbigin, In The Church of England Newspaper, February 16th 1990 p. 11].

[10] See for example A.J.Ayer, Language, Truth and Logic (London, Faber 1946).

[11] Apart from recent contributions by Jürgen Moltmann in his God in Creation (London, S.C.M. Press 1985) and Sean McDonagh's To Care for the Earth (London, Geoffrey Chapman 1986) there is still little serious theology on the subject of man's care and stewardship of the environment. Torrance's analysis of power of technique and technology is profound and important but unfortunately not widely known or understood. This is probably because it predates most other contemporary Christian writing on the subject and was written before it became fashionable to be interested in such things. [DCO 128ff]

[12] Stephen Hawking A brief History of Time. (London, Bantam Press, 1988). See also, Stephen Hawking Black Holes and Baby Universes. (London, Bantam Press, 1993).

[13] [STI 8] and see Daniel Hardy's discussion of this in "Thomas F. Torrance" in David Ford, ed., The Modern

Theologians (Oxford, Basil Blackwell 1989).

[14] In our first chapter we described how a non-Euclidean, non-foundational, open framework of knowledge might well contain limited Euclidean areas. Newtonian physics as Torrance conceives it is just this sort of reality, only explainable and valid in terms of a larger, global non-foundational structure of knowledge.

[15] This "tacit dimension" is discussed in some detail by Daniel Hardy in BSCL pp.71-90. Hardy brings out Polanyi's distinction between focal and subsidiary awareness. Hardy discusses the process in which our general epistemological framework is changed through moments of focal awareness which are combined with our subsidiary awareness by a process of "subsidiarisation". It is this subsidiary awareness of which we can never be totally focally aware that combines with the empirical to produce the clues that combine in the intuitive heuristic leap in the formation of new knowledge.

[16] John Calvin Institutes of the Christian Religion trans. Henry Beveridge (Grand Rapids, Michigan, Eerdmans 1981), Book 3, Chapter 2, p. 467ff.

[17] Daniel.W.Hardy op. cit, p.77.

Chapter 4

VERIFICATION AND TRUTH TESTING IN NON-FOUNDATIONAL, REALIST SYSTEMS OF THOUGHT.

Introduction.

We ended Chapter Two with the important question of verification. How are we able to make judgements that distinguish truth from falsehood? For Torrance this is a crucial issue on which his whole epistemology will stand or fall. Of fundamental importance to him is the unique position of Jesus Christ. How can we know that Jesus Christ is the ultimate revelation of God? Without this knowledge everything else collapses. Clearly, we can not attempt to verify something like this in terms of other known truths. In fact any of the normal criteria of truth testing that we might apply in our daily lives to other potential facts can not be used in this instance, since it would make the truth of God dependent on other truths, other foundations.

The sort of stance that Torrance takes, as outlined in the last chapter, means that a new way of truth testing has to be found, to operate in a non-foundational system. Without an effective method of verification his whole scheme topples into the idealism

that he is so keen to avoid. This issue is of absolute importance for Christians today and a fresh approach is clearly required. Both liberals and fundamentalists operate with a foundationalist approach to verification; the liberal appealing to autonomous reason and the fundamentalist appealing simplistically to the words of scripture. Can Torrance give us another option?

1) Problems in verification.

In his book Space Time and Resurrection Torrance makes the startling admission that his basic theological schema operates with a circularity of truth.

Now it may be objected,...I am operating with an essentially circular procedure. I agree, but reject the implication that this is a vicious circularity artificially intruded into the ground of knowledge. What we are concerned with here is the proper circularity inherent in any coherent system operating with ultimate axioms or beliefs which can not be derived or justified from any other ground than that which they themselves constitute.[STR 14-15]

Circular arguments have had a rough passage in the history of philosophy and at first sight Torrance would appear to be heading the same way.

At the end of Chapter Two we raised the question of the verification of our basic beliefs. For the Christian one such fundamental belief is that in Jesus Christ, God

has spoken to humanity. As we have seen, physical science also operates with basic beliefs, and the concept of order is basic to both types of discipline as a basic non-provable presupposition.[CFM 17-18] In a circular non-foundational system, how can there be any hope of verification or testing of the truth of such beliefs? Is Torrance not asking us to presuppose our answer in our question? This in essence is the objection levelled at Torrance by William Abraham, quoted at the beginning of Chapter Three.[1] Abraham feels that we need other criteria with which to test truth claims. This objection could apply equally to theological or scientific beliefs since for Torrance the basic methodology is the same in each case; it is only the object that differs. This is a serious charge, for without a means of testing truth claims and our basic beliefs, we are cast into utter meaninglessness. In a review of a book by Lesslie Newbigin, Bishop Michael Nazir-Ali throws out a challenge to Newbigin's position which would seem to carry the same force when applied to Torrance; he makes a similar point to Abraham.

Bishop Newbigin's understanding of the Christian tradition as a tradition with its own intellectual and moral integrity has great force. This integrity can only be appreciated if there is sympathy and even identification with the tradition. But students of other traditions know that this is true of them as well. How then are we to decide between one and another?

If our apologetic is to be credible...we must avoid what Ninian Smart has called 'conceptual fideism'. In other words, an

attitude which suggests that we can not discover the truth of a spiritual system or world view until we subscribe to it.[2]

Our task is not to defend Newbigin, but is not the charge of conceptual fideism relevant to Torrance, who himself declares that it is not possible to judge a system from outside of it and that all questions must be asked within the "knowing circle"?[TS 165, TIR 54] This is the argument that Abraham makes when he criticises Torrance for simply positing Jesus as the place where God has made himself known. Abraham thinks that Torrance fails to justify this and says that theology must establish this in some other way. He thinks that the inner complexity of theology does not warrant Torrance's act of faith.

On the face of it this would appear to be a powerful criticism. We may well be able to establish the internal consistency of a system but how do we compare it with other consistent systems? A system might demonstrate its own internal consistency but still might be entirely false. How might we for example judge between Christianity and Islam if no external criteria may be brought into play?

These powerful arguments threaten to upturn Torrance's whole body of opinion and we shall now spend

some time looking at the way in which he approaches the whole area. Once again his position is subtle, sophisticated and unique in its conception. This is one reason why theologians often object to Torrance's methodology because it is easy to jump to conclusions about where he is heading or the theological traditions he is following. Also, the conception of non-foundational realism is unusual and it tends to attract fire from both realist foundationalists and idealist non-foundationalists.

2) Verification in a contingent universe.

We have seen that for Torrance rationality is an a posteriori entity given to the knower by reality in an intuitive faith act. Without such intuitive penetration into the theoretic structure of things the knower is left with disparate sense experience devoid of order. Before this intuitive encounter nothing can be known of the object of study, its surface appearances are empty of meaning. In this way it could also be said that Torrance's approach to truth testing is a posteriori. It takes place within the circularity of the knowing relationship. To do otherwise would be to bring into play external a priori factors, alien to reality. This would seriously impare our ability to make fully rational unbiased judgements.

This certainly makes sense in the verification of Christianity, which claims not to be simply a "world-view", but rather the all embracing explanation of the way things are in the universe. To test such a system of belief with external criteria would pre-judge the issue reducing it to the status of one world-view among many.

This a priori approach to truth testing comes directly out of the doctrine of creation out of nothing and belief in a contingent universe. Contingency points to an open universe not explainable in itself. Ultimate rationality is thus grounded externally. Torrance applies Gödel's incompleteness theorem to the universe as a whole.[CFM 46-47][3] Gödel stated that any consistent system must have one or more propositions that are not provable within the system. If the system is to have consistency these propositions are only proved with reference to a wider system. In universal terms there comes a point at the boundaries where entities are no longer explainable in terms of logical inference. Without such a boundary, systems can have no rationality or grounding. An entirely complete logical system, like euclidean geometry for example, has no grounding with reality and "floats in the air" as it were having no ontological import.[TIR 60] It is at the boundaries, where logical argument fails, that the universe is open to the rational. Inevitably then, any intellectual,

scientific, moral, or theological system will have these open boundaries where it is open to the rational. This is the area where the act of faith takes place producing the grounding relationship with reality. Therefore, any coherent system will have a logical circularity about it. In a contingent universe it is impossible to have anything else. Certain things will have to be assumed if knowledge is to occur. Logical tests of truth must then take place within this circularity. Contingency brings with it the realisation that a completely water-tight logical proof of anything that claims to say anything about reality is quite impossible.

If this is the case, are not science and theology condemned to complete subjectivity and arbitrariness? This question is forced on us again. Can a non-foundational system really have enough "backbone" and rigour to sift truth from falsehood?

Not surprisingly Torrance thinks it can, although he is sure that logical verification is altogether impossible.[TCFK 202] However, truth testing is essential, and Torrance states that beliefs "need to be put to the test in order to be distinguished from what is merely subjective or illusory".[TCFK 194]

We will recall from the first chapter in our

discussion of non-foundational systems, the abandonment of foundational axioms as guarantors of truth necessitates new tests for truth. Truth is tested by enmeshment, dynamic interrelation with the whole frame of knowledge and overall fit in the system. We cited Nicholas Rescher:

One has achieved adequacy when through a process that is continually both forward and backward looking one has reached a juncture where everything stands in due mutual co-ordination with everything else[4].

Knowledge is that which is

duly fitted into a systematisation of the candidate's cognition[5]

Enmeshment and "fit" seem to be the way forward for the non-foundationalist. Torrance refines these ideas vastly and alongside the revolutionary concept of non-logical intuition produces a remarkable system of truth testing wholly consistent with his overall vision.

We have been attempting to pick out the main strands of Torrance's work in this area and to simplify them to allow the main structures of his ideas to stand out. Torrance's own explanations are often highly complex and dense and there is obviously a danger in such simplification. Torrance addresses the same issues over and over again in various places from different angles and much of the delicacy and fine nuance of his system

can easily be lost unless this is taken into account. Torrance's style can mean that the potency and import of his arguments are lost in endless detail and refinement. This is particularly true in his thinking on verification which has to be gleaned and built up from many sources. This is a shame considering the important implications of this subject.

We will now proceed to unpack his methodology more thoroughly, but first it will be necessary to look closely at how Torrance sees basic beliefs being formed and their function at the ground of knowledge.

3)Formation of basic beliefs and presuppositions in the fiduciary framework.

Following Polanyi, Torrance makes use of the idea of a "fiduciary framework" of basic beliefs.[TCFK 196] Such a framework is formed by the informal processes of intuition in the knower as a pattern of ruling theses and presuppositions on which the knower cognizes reality. Within the fiduciary framework

we come to know more than we can tell but which has such a bearing upon the real world that it carries within it an anticipatory awareness of a coherence in nature upon which we rely as a clue in the development of explicit knowledge.[TCFK 78]

This pattern of basic beliefs remains in the background

most of the time. It contains more than we can bring into focus at any one moment. Basic beliefs through the process of intuition are formed in an unconscious informal way, "a process of learning without awareness".[TCFK 78]

This learning without awareness through intuitive unconscious acts forms within the knower a regulative framework of basic beliefs. Torrance calls these basic beliefs "existence statements" to distinguish them from what he calls "coherence statements". Torrance derives this distinction from David Hume.[TS 164] Existence statements are those basic theses that concern our penetrations into the theoretic structures of reality.

They express our intuitive apprehension of the external world in its own forms, and thus have meaning not in themselves but in the things they denote.[TS 226-227]

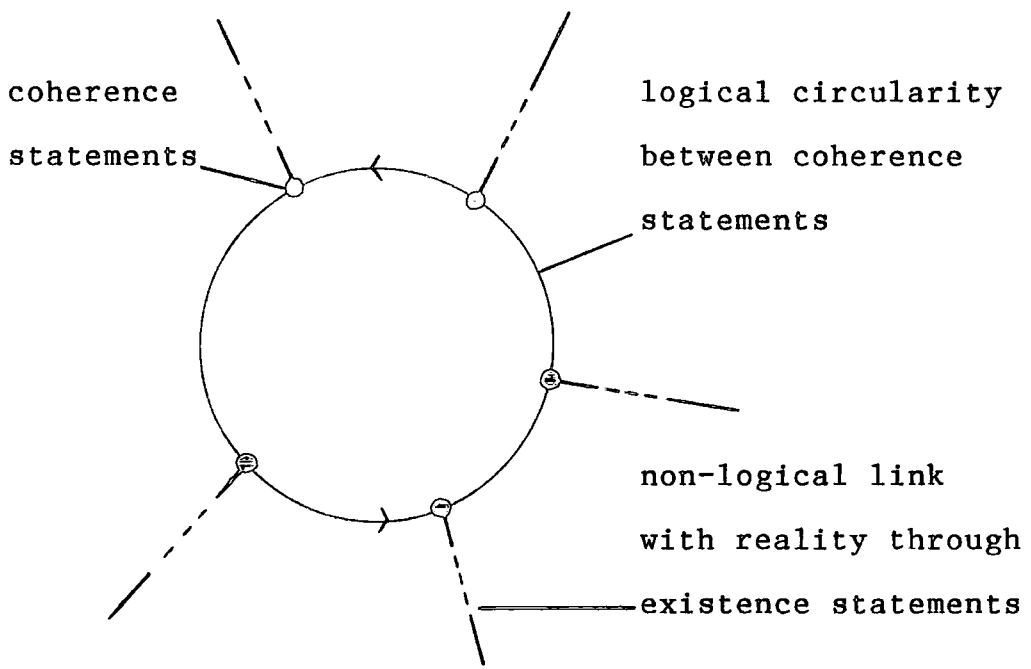
Existence statements operate at the boundary of logic and point us to the basic theoretic structures of ontology.

Coherence statements are to do with the relation of ideas; they concern empirical reality and rely on existence statements for their rationality. Each type of statement requires the other. Existence statements without coherence statements have nothing to do with the

observable world and coherence statements without existence statements are devoid of ontological reference and are empty of significance.[TIR 53] Together existence and coherence statements form the structure of our minds. The question is how such a structure relates to the real pattern of ontological reality. Is it, as Torrance says, a case of "structural kinship"[TCFK 114] between the human mind and reality, or is this just wishful thinking?

This mutual dependence of existence and coherence statements follows from what Torrance believes about the reconciliation of form and being and theoretic and empirical factors in knowledge that we examined previously. Existence statements are concerned with non-observable theoretic structures in reality while coherence statements concern the inner logic of the observational empirical world. This understanding of empirical and theoretic factors working together is the key to understanding Torrance's approach to truth verification.

To summarise this and to help us understand a little more clearly, the diagram below sets out in a very simplified form how knowledge interrelates and how it is grounded.



For knowledge to be called such it requires a combination of existence statements and coherence statements to give content and grounding. Thus we can see that coherence statements operate with a circularity of logic, relating logically only to one another. Their grounding in reality through existence statements however, is non-logical and non-necessary. For any attempt at verification to be successful then it must operate along these lines. To seek to argue logically from coherence statements back through existence statements to ontology is not possible. This is why theoretic proof of anything is impossible. To try this method is to stand outside the way that knowledge is actually grounded and attempt to bring into the knowing relationship alien factors and artificial certainties. This is why for Torrance it is impossible to attempt to verify truth from outside the actual experience of truth

within the circle of knowing. Indeed the way in which we attempt to persuade others of truth is not to start with basic first principles and work up, rather we have to help them to step into the knowing relationship to experience it for themselves.

We can convince others of the truth of our existence statements if we can get them to see or hear the reality they refer to as we see or hear it...Hence when someone can be induced to engage in the appropriate empirical reference, in accordance with the nature of the referent, then he is in a position to judge the truth or falsity of our existence-statements.[TIR 54]

Clearly it is our coherence statements that are amenable to logical analysis in which we can look at their inner organisation governed by our coherence statements. It is the rationality of our empirical world that gives us clues to the validity of our basic beliefs. Thus, although truth is grounded ontologically and non-empirically, it is expressed in our organisation of the empirical world. Empirical factors therefore give us the way into value judgements of differing basic theses. It is the order and logic of empirical reality which points beyond to the rationality of non-empirical reality itself. Torrance's criteria are rigorous and demanding as we shall see in a moment. We will recall Abraham's criticism of Torrance that he fails to establish his claims and just states them dogmatically.

We will now look in detail at the procedures that Torrance propounds to establish truth. Torrance is no fideist in the last analysis because of the link of his system to reality through intuition. Torrance is not advocating blind leaps of faith.

This does not mean that are simply to accept whatever people may claim to be ultimate beliefs, without due consideration of whether they are genuine or not - that is to say, without proper consideration of the evidential ground upon which our beliefs rest.[TCFK 202]

If Abraham is asking for evidence outside the knowing relationship then his request is meaningless.

4) Threefold verification in non-foundational realist systems.

Verification within the knowing relationship involves the criterion of enmeshment and fit. We have seen that this method is held in common with all non-foundational systems. Torrance certainly follows this, but his concern with realism causes him to refine this model of verification and bring in other factors also in the quest for the legitimation of beliefs and their establishment as links with ontology.

We shall argue that Torrance fundamentally uses three levels or methods of verification. Certainly there

is some overlap and the three levels can work simultaneously or separately but nevertheless these three levels are discernible.

As we have seen the final test of truth cannot be logical derivation. Torrance summarises the type of test he has in mind. We can know when we are in touch with reality with our beliefs, only when we answer the question,

Are they beliefs which we cannot help having if we are to remain rationally faithful to the nature of things in the universe to which we belong, beliefs such that, if we refuse to adopt them, we would, as it were, be cutting our own throats as responsible rational agents?[TCFK 202]

In a way existence- statements are self testing because their proof lies in their own persuasive power to make us realise that we cannot function without them. Without them our empirical world would be disorderly. In this way existence-statements are self-verifying and self-authenticating.

we can accept as ultimate only what is objectively forced upon us by the intrinsic intelligibility, truth and authority of the subject matter...as belonging to the regulative ground of knowledge.[STR 16]

This self-authentication runs through each of our three levels of verification.

i) Enmeshment and coherence.

Torrance believes that there is ultimately a profound harmony between reality and the mind.[TCFK 77] Existence-statements do not in themselves have empirical import. However coherence-statements do and are based on clues and pointers given by basic existence-statements. It is the empirical in knowledge that gives us pointers as to the truth or otherwise of our existence-statements. If there is rationality in our coherence-statements that helps us to make sense of sense experience in a coherent way, in a manner which enmeshes with the import of other coherence-statements, then we may assume that our basic existence-statements, generated intuitively, have some bearing on reality since they point to a coherent pattern of existence-statements. This would begin to indicate that we are in touch with reality. Torrance clarifies this by pointing to strict science where

a number of existence-statements are arranged in a coherent series in such a way that the rational pattern of the coherence-statements makes clear and points us to the objective rationality upon which existence-statements rest and so bring our minds under its power. In that way existence-statements gain our respect for they command our recognition of the realities they refer to.[TIR 54]

This is all difficult to get to grips with, and so to look at how this might work in practice may well help

us. For example, we might have a basic deep seated conviction that white mice are actually the source of order, rationality and wisdom in the universe. We might then ask how this conviction helps us to order our actual experience of white mice in our minds. Does this basic statement cause us to develop coherence-statements about white mice which enmesh with other coherence-statements derived from other existence-statements in our fiduciary frame work? On the planet earth at least we can see that such an existence-statement is unlikely to be true. It generates existence-statements which do not account for the behaviour of white mice and which do not enmesh with other coherence-statements. This rather trivial example brings out the basic factors in using enmeshment as a truth test. We have not asked the impossible question about the logical link between our basic statement and reality and yet we have been able to judge it false by seeing its effect on our overall field of coherence-statements and hence its effect on the coherence of the field of existence-statements. Here we can see the importance of the empirical at work in truth testing and the profound interrelation of the empirical and the theoretical in knowledge:

it is the empirical and ontological reference of our concepts that must be the controlling factor in helping us to find the right path, for all knowledge of reality begins with experience and ends with experience.[TCFK 77]

It is thus the applicability of basic statements to the real world that assures us of their validity.[TS 242-243]

ii) Heuristic fertility.

This second level is really an extension of the first and confirms our primary verifications. By looking at the enmeshment of coherence-statements we can see that in a limited way our existence-statements form a coherent pattern and hence are applicable to a world described by other coherence-statements. This proof is greatly deepened if this initial applicability is seen to extend way beyond what we had initially imagined or hoped for. In other words our existence-statements prove more fertile than we could have predicted. It is a test that involves the success or otherwise of a theory. Such success depends on

its ontological import, i.e. its power of objective reference to point to and reveal the hidden structures in the world to which it is correlated.[TCFK 80]

This occurs when our basic theories help us discover new facts or solve problems or allow us to intuit reality more clearly. Torrance recalls the words of Polanyi who called this the "indeterminate scope" of the implications of theories. Torrance explains that such a theory

constantly surprises us as it continues to reveal more than we had anticipated or indeed could anticipate at the time of its formulation.[TS 242]

In this way theories generate their own authority and grounds for acceptance.

It is just this that makes it evident to us that our theoretical explanations of experience are on the right track and have established contact with a reality that reaches out behind them in such a depth of objectivity that we are confirmed not only in the early intimations around which the theory was built but in the knowledge we have subsequently gained through it.[TS 242]

In this way a theory operates as an "heuristic instrument" opening up new, previously unpredicted knowledge.[STI 16] Such a theory aids our intuitive penetration of reality and thus opens up new frontiers. By a process of trial and error in this way we can try out different theories with which to penetrate reality and discern its inner organisation. It is the success of a theory to do this that in the end constitutes its proof of contact with reality.[TCFK 94]

iii) The final level, global enmeshment.

We recall the charge against Torrance with reference to the lack of external objective criteria with which to compare competing ideologies, world views and

particularly religious systems. All of the preceding tests may indicate total consistency within a system of beliefs and theories. This claim of internal consistency may well be made by those within competing systems, and is made by proponents of different religious traditions and world views. Torrance does not say that each discipline and area of knowledge is trapped within its own frames of reference. For Torrance all knowledge, if it is to be called such, must enmesh within the whole field of human knowledge in every field. Religious truth claims do not form a different category of knowledge from any other type of truth claim for their underlying methodology of derivation is the same. It is simply their subject that differs. Religious truth claims along with all other types of truth claim should then be able to enmesh with the whole global system of knowledge forming a unified multi-dimensional world view.

Torrance is aware of the difficulty in judging between different systems, and as such indicates that we must be able to reject a complete system of belief.

Such a system,...even if entirely consistent within itself could conceivably be false, and must therefore be open to reasonable doubt: but that means that the system stands or falls with respect to its power as a whole to command our acceptance.[STI 15]

Thus we are to attend to the whole field of human knowledge and judge its overall credibility and coherence.

We do not start, then, with discrete particulars, spatial instances or temporal instants, and aggregate them into wholes through empirical generalisations, for the differentiations within the field are what they are only through the irreducible field-structures of the whole system. We have to keep attending to all that the field embraces in its profound relationships until the relevant principles have revealed themselves to us.[TCFK 78]

With regard to religious systems, then, it is artificial to take them in isolation for they impinge on all other parts of the field of knowledge. Religious systems will share basic existence statements with other parts of the field and there will be much overlap of concern and questioning. Theological statements and theological systems need to be tested in relation to non-theological ideas and theories. If a religious system is to be judged true it will possess a deep complementary relationship with other areas of knowledge rather than one of conflict. The concern to demonstrate this has been one of Torrance's main areas of interest particularly in the area of the relationship between physical science and theology. Torrance would probably argue that no other religious system could claim such a deep enmeshment with the whole frame of human knowledge as Christianity.

Using these three levels of truth to test the progress of knowledge is in general a slow refinement of concepts and theories as we open ourselves more fully to objectivity. As mentioned previously, Torrance compares this process to a person doing a puzzle. The right answer is already there in its basic form; we as knowers by free intuition move towards the right answer, as we slowly refine our theories and questions until we have answers that work in all instances. This is proof.[TCFK 79] Torrance summarises the process thus:

In the process of question and answer in some field, we find imposed upon us a new and enlightening form which we judge to be an important intimation or essential clue to the reality we are investigating. We make it central and organise the other forms around it in a harmonious pattern of reference. Then we imaginatively or tentatively project that as a hypothesis and put it as a complex question to the reality we are investigating in such a way that the answer is clearly intuited, and so once again in the light of what is revealed we proceed to reconstruct it. We clarify and sharpen its focus as an act of interrogation, we simplify and unify its conceptual form, in the hope that it will become such a transparent medium for our apprehension that our thoughts will fall under the power of the logic or the interior connection in the components of reality itself.[TS 239-240]

By careful testing we are able to look at the enmeshment of new ideas and therefore to check their basis in reality by non-logical means.

Occasionally in a field of knowledge there arise new facts that refuse to go away and do not easily fit into our existing frameworks. Usually our basic existence-statements are in the background and we take them for granted. However, when existence-statements show signs of conflicting with one another then they have to be brought out for close examination. Torrance points out that it at these times when we are often on the brink of major discoveries. Reality presses in on us and causes us to radically rethink our world views. At these times we are forced to examine our existing basic beliefs and their link with reality. Torrance points to the massive paradigm switch that was involved in the move from Newtonian modes of thought to dynamic Einsteinian physics. This occurred because old forms of thinking could not account for new experimental data. This caused a radical shift in the way that scientists viewed the world. The existence of reality was confirmed by the sheer fertility of these new theories.[TCFK 99, STR 16-17] For Torrance the events surrounding the life and death of Jesus Christ had a similar effect.

5) The self-verification of Jesus Christ as the Word of God.

Abraham's central question to Torrance was about how he establishes that Jesus Christ is the place where God

speaks to us in contingent reality. In our previous chapter we saw how Torrance sees Jesus as the centre and reference of all things, our final guarantor of objectivity and the place where our contingent statements may speak of God. For Torrance then, a lot rides on this particular matter of verification!

Torrance tackles this head on in a particular passage in Space, Time and Resurrection. [STR 17-23] His method of verification follows the patterns we have set out above.

We have spoken about those times when our basic beliefs at the root of our conceptual frames show signs of inconsistency. These times are often the eve of large scale reassessments of our world views, times of revolutionary change in our cognitive patterns. New knowledge produces a rival framework that cannot be reconciled with our existing frame by formal argument. We have the choice of rejecting this new knowledge as absurd or radically restructuring our whole system. Torrance points to the Incarnation and Resurrection as such events. Their implication was, says Torrance, "seismic" for these facts came into a world of Greek and Hebrew categories and conflicted radically with their basic beliefs. A massive restructuring then took place as these events forced themselves upon the early

Christians as they recognised the absolute intrinsic authority of these events. They had to assimilate that:

In the life of Jesus Christ an objective self-disclosure of God in Word and Act had taken place within the structures of the world which was discerned to be of a final and decisive nature, commanding commitment in the response of faith, in which Jesus Christ himself constituted the central point of focus in an exclusive relation with God the Father.[STR 17-18]

These events required a hugely difficult task in producing a Christology. A working through of the ramifications of the events and an attempt to restructure the basic philosophical frameworks around these events. This Christology took root in ancient culture and transformed it.

Because of its profound significance the Christ event came as an event that could not be ignored. It made itself accessible to apprehension, "creating the condition for its recognition and acceptance".[STI 19] The events of the Incarnation thus carried their own authority,

bearing their own proof in the self-evidencing reality of God's Word and Truth...such is Jesus Christ our Saviour and Lord, incarnate and risen, who constitutes in himself the ground of faith and demonstration in respect of him.[STI 19-20]

Torrance understands Christ as absolute ontological reality and therefore beyond the bounds of logical

deductive demonstration or verification. He comes to us on his own terms and with his own authority and causes us to organise our own conception of things around him.

The unique object of theology is verified on his own terms and under his own authority. Torrance's approach to verification is consistent with this. It was the internal authority and rationality of the Incarnation and Resurrection that forged recognition for itself. In these events the Word of God was encountered in a way that he had not been encountered before. This basic recognition led to a world view that was dramatically altered. This world view has stood the test of time secure in its interaction with the way the world is. Thus Torrance points out how these basic factors in Christianity have provided a solid base for its existence.

Not only has it vigorously stood the test of history ever since, but it has continuously reinforced itself by the way in which on these foundations it has been able to cope with a welter of different cultures and philosophies throughout the centuries, while remaining ever the same - thereby also revealing the inexhaustible reserves it draws from its ultimate beliefs.[STI 20]

As beliefs they have had success in making sense and dealing with the world as it is and provide themselves the organising pivot around which other basic beliefs can coordinate and enmesh around them. Here the test of

enmeshment is more than successful as the Incarnation provides the key for the integration and enmeshment of so many other beliefs. Torrance then goes on to list the incredible ramifications of the Incarnation and Resurrection. Although Torrance does not spell it out here, it points to the amazing fertility of these ultimate basic ideas, to take us into areas we could not otherwise dream of or imagine. By definition this must be the most fertile of all basic beliefs, if Christ really is "the point of supreme focus for the whole universe of space and time".[STR 22]

These particular basic beliefs are the ultimate basic beliefs; Christ is the ultimate source of rationality and unification in the universal order. Hence our final test of global enmeshment takes a slightly different form. Rather than simply fitting into our wider global vision, Jesus Christ must constitute the ground of all other knowledge. Global enmeshment thus occurs around the person of Jesus Christ as ultimate organising principle. In a way Torrance's whole theology is a setting out of the deep interrelations of science and theology and is an attempt to set out this enmeshment. He demonstrates how uniquely Judeo-Christian insights have been the main constitutive beliefs that have allowed science and knowledge to make the really big moves forward. This is seen for instance, in the

doctrine of creation out of nothing and its implications for relativity theory. Could Islam or Hinduism provide basic beliefs on which to base a coherent science? Torrance would probably doubt this.

When we come to Jesus Christ the ultimate, ultimate belief, the possibility of logical verification goes even further away, since he comes to us completely on his own terms.

the incarnation and resurrection really are ultimates which must be accepted, or rejected, as such, for they cannot be verified or validated on any other grounds than those that they themselves provide. Thus regarded, the incarnation and the resurrection are the basic and all embracing miracles upon which the Christian Gospel rests, miracles which, by their very nature, are not verifiable in terms of the kind of evidence and argument which obtain within the natural sciences where we are concerned only with natural processes and the natural order of things.[STR 22]

There certainly is no logical bridge between man and God as he comes to us out of his own freedom in a non-necessary way. Our test of truth then, is within the interconnections of these events with contingent reality and using the type of truth tests that we have examined.

in so far as the incarnation and the resurrection are acts of God within the contingent intelligibility and natural structure of space and time, they are open to rational examination and testing in terms of those intelligibilities and structures, and therefore are and must be open to the kind of questions raised within the natural sciences as well as the human sciences.[STR 22]

Summary.

If we were to say that Torrance has demonstrated the reasonableness of Christianity and given us evidence to place our faith in it, this would be to put things the wrong way round. The Incarnation and Resurrection demonstrate themselves in this way. Torrance, however, has guided us through the parameters within which our questions and truth testings are rational and has given us criteria with which to judge reality which are in sympathy with the nature of reality.

To the question as to whether Christ is established as the place where we may know absolute ontology in the contingent order, we can not answer "yes" or "no" in a prescriptive and logically proveable way. It is for each person to enter empirically into the knowing circle and test it out for themselves. This is the act of faith at the root of Christian belief, not a fideistic leap in the dark, but a rational and reasonable step backed by the evidence of the self-authenticating absolute reality and rationality of the Word of God. Abraham's dismissal of Torrance on the grounds of verification needs some rethinking.

Once again, Torrance offers a positive way ahead for Christians to make significant and decisive statements

in the modern world and gives a model that can be used in the complexity of human life today.

Caution however, needs to be exercised here as before, for his vision is not without limitations. Following on from the criticisms that we have pointed to in earlier chapters, we can see again in his approach to verification, similar sorts of limitations running through. Torrance does paint truth and falsehood in very "black and white" terms. Human beings give either a right response to reality or they do not. There is only one right answer. This appears to deny that sometimes truth (even biblical truth) can be pluriform in nature, sometimes paradoxical and many faceted. Certainly, groups of human beings respond to reality in different ways, and this is why there is cultural diversity. Torrance if taken to his logical conclusion, would seem to suggest that there is only one proper way to respond and anything else is either a distortion or totally false. Again we will enlarge on this in the conclusion.

END NOTES TO CHAPTER FOUR

[1] p. 8.

[2] Michael Nazir-Ali, review of The Gospel in a Pluralist Society, By Lesslie Newbigin, in The Church of England Newspaper, February 16th 1990 p. 11.

[3] Gödel's theorem is discussed in Chapter One.

[4] Nicholas Rescher, Cognitive Systematisation (Oxford, Basil Blackwell 1979), p. 47.

[5] ibid., p. 50.

Chapter 5

THE EPISTEMOLOGICAL SIGNIFICANCE OF NATURAL THEOLOGY, TRADITION AND HOLY SCRIPTURE IN THE FORMATION OF AUTHORITATIVE THEOLOGICAL STATEMENTS

...what scientific theology rejects is the attempt to treat 'natural theology' as a foundation upon which positive theology can be made to rest, or to use it as a criterion by which to assess the content of what we apprehend through divine 'revelation'. [TS 104]

Introduction.

Any theological enterprise rests on the ability to make meaningful statements about God, the world and the relationship of human beings to these two. At different times and at different places, different sources and different methods have been employed to formulate these statements and to invest them with authority. The previous chapters have concentrated on faith and reason and the way that these work both in natural science and theology. We found reason in fact unable to act as a source of autonomous authority, but rather we found it a faculty by which we appropriate other authoritative sources.

In this final chapter we shall study the remaining three areas of potential theological import, those areas

commonly called on by Christians to create and support their theological pronouncements. These are "natural theology", tradition, and finally scripture. We shall discover, not surprisingly, that Torrance has clear ideas about how these operate for the theologian.

1) Natural theology.

Torrance readily acknowledges his indebtedness to Karl Barth. This is nowhere more obvious than in his understanding of natural theology.[1] Clearly Torrance's position is close to Barth's at this point, but he does more than simply repeat Barth. Torrance's whole theological programme is tightly integrated with itself and he demonstrates how the Barthian position enmeshes totally with his wider vision, particularly bringing the implications of modern science to bear on theology. He also demonstrates how natural theology can be radically restructured and reformulated to serve the inner shape of theology. There is, then, not a wholesale rejection of natural theology but a total recasting of its nature and import based on his wider theological schema.

i) Dualism and natural theology.

As we have noted previously, Torrance returns again and again to the subject of dualism in his works.

Dualism for him has been the main blockage in the history of human thought, the fundamental mindset that has plagued systems of thought throughout the ages. Frequently in his works he presents history and intellectual and scientific development in terms of a mighty struggle between dualistic modes of thought and more unitary approaches to knowledge issuing out of a grasp of the contingent and open nature of things.[2] He is confident that dualisms in modern intellectual thought will gradually be driven out simply by the facts of contingency forcing themselves upon us in the progress of modern science. The ramification of modern science will slowly restructure the very way we think.

It is not surprising that Torrance's non-foundational realism should reject natural theology. With his rejection of the existence of a logical bridge between concepts and reality and between God and the world, it is clear that he will rule out the great tradition of theology issuing from Aristotle and so clearly focused in Aquinas and his five ways which pre-suppose such a logical link.

It is modern theology's fixation with foundational, dualistic modes of thought and the resultant natural theology that Torrance places at the heart of the modern rejection of God, as natural theology fails to stand up

as any possibility of a logical bridge between us and God becomes more and more untenable. He speaks of the "desperate attempt to find a logical bridge" [RST 38] which of course always fails.

As we have seen in the last chapter verification and proof for Torrance are in the last analysis internal; any attempt to build a theology on purely independent, external, empirical criteria is bound to fail. If this is the aim of natural theology then Torrance rejects it

ii) Deism and interactionism.

Torrance's views on natural theology arise directly from the kind of God that he believes in. The dualism just mentioned arises from a deistic view of God and his relation to the world.[GGT 79-80] This forces splits between thought and being, and concepts and reality that in the end prove unbridgeable.

Torrance, however rejects deism and embraces a God who is intimately involved in the world and yet retains his own identity and separateness. Torrance's God is interactionist in his relation to creation. Torrance makes the important point that this is precisely the sort of God that Barth believed in, God who is separate and yet deeply involved in the world creating from his

side of the divide the grounds on which the world is to relate to him. As we have discussed in the previous chapters these links are non-logical and ontological in nature. Torrance rightly notes that because of this, Barth's own rejection of conventional natural theology is for reasons which are the opposite of those often attributed to him; Barth is no deist but rather an interactionist.[GGT 87]

This deistic view of God sets up a dual approach to theology, a natural framework of thought worked up from created reality in abstraction from God himself and a revealed framework of thought.[GGT 91ff, KBBET 149] This actually splits God himself and seriously disrupts Trinitarian understanding. We end with a natural theology of one God in general and a particular Trinitarian understanding of God derived from revelation. This naturally leads to real tensions in theology when these theologies attempt to interact. Torrance makes the point that we are forced to examine one aspect of his being apart from other aspects as traditional theology abstracts God's existence from the way he actually acts in the world.[KBBET 151]

With Torrance's rejection of deism and dualism we have already seen that he has a much more integrated approach to theology, a theology whose truth and

structure is developed internally. Referring to Barth with approval he notes that he

is committed to one coherent framework of theological thought that arises within the unitary interaction of God with our world in creation and incarnation.[KBBET 149]

Torrance is keen in theology to ensure that its rationality is intrinsic and not extrinsic. It is not imposed from outside and worked up independently but generated through the actual interaction of God with the world.[GGT 90-91] The basic rational shape of theology then is Trinitarian. This Trinitarian structure Torrance calls "the basic grammar of theological knowledge".[KBBET 152] God Himself interacts with the world to create the rational structure of our knowledge of him. That structure is Trinitarian and particular and not unitary and general.

iii) Natural theology as a "sub-science" of revealed theology.

A rejection of natural theology as it has been practised in classical theology is explicit in Torrance. Our ultimate knowledge of God and how we are to speak of him is grounded in the action of God himself in time and space. Any attempt to know God independently of this is artificial and damaging to theology as we import alien

concepts into the field of knowledge. Clearly, however, theology requires a rational structure that links and enmeshes with the world we live in. Our knowledge of God cannot "float" above our physical existence and language. Torrance thus does not reject natural theology totally but sees it operating within the bounds of Trinitarian theology. Thus Torrance declares that

If natural theology is to have a viable reconstruction even in something like its traditional form, it can be only on the basis of a restored ontology in which our thought operates with a fundamental unity of concept and experience, or of form and being, within a contingent but inherently intelligible and open-structured universe.[GGT 86]

This move from dualistic modes of thought to more unified ways of apprehending the truth of reality calls for big changes in natural theology, its function and its bounds.

We recall the use that Torrance makes of Godel's theorem which makes it clear that any system if it is to have meaning must itself be incomplete and open to some higher level of meaning.[3] Torrance sees natural theology in the same way.[GGT 92] An appropriate natural theology would be open to a system of higher meanings, itself incomplete until grounded in it. Natural theology therefore points to an ontological reference beyond itself and is only complete when it is so ontologically

grounded. Natural theology is what Torrance calls "the essential sub-structure within theological science.[GGT 93] It consists of the logical elucidation of basic revealed insights as they impinge on the created world. Natural theology is the internal logic of theology issuing from basic evangelical facts intuitively apprehended. This is the area of "coherence" statements with their openness to and dependence on more basic "existence statements", their logical enmeshment with each other and their coordination with the empirical world.[4]

Natural theology, then, is about the inner logical dynamics of theology issuing from more basic intuitive convictions about God. It is the place where those convictions take on flesh as it were. It is the place where those convictions are teased out and applied to the world we live in. It is here that theological convictions impinge on the whole of our framework of knowledge. Thus natural theology is

a form of rational argumentation on natural grounds in which a believer attempts to elaborate chains of reasoning which will remove from sceptical minds that which obstructs direct intuitive apprehension of the living God.[TS 104]

Direct access to God is made in the intuitive heuristic act between God and the individual; the truth of that

experience can only be known within that relationship. Natural theology cannot substitute for that; its logic and reasoning breaks off before we reach God. The believer can, however, work with the inner logic of theology, demonstrating to the non-believer the inner logic and rationality of Christian faith and its coordination with the way the created world really is. This removes misapprehensions and logical blockages which would prevent the non-believer from entering into the intuitive relationship with God.[5] Torrance points out that it is natural theology recast in the way he suggests that allows creative dialogue between theology and science and other non-theological disciplines to go on. It is within this field that theologians and scientists address similar questions. Clearly natural theology deals with the rational ordering of theological concepts as they impinge on the empirical world of language and physical reality. It is with these rational structures that the scientist is concerned also.

This area of overlap is huge and an essential dialogue must go on to clarify methodology, that is, epistemology in the light of intuitive insights derived from both science and theology where they impinge on the same empirical correlates in the created world. Thus Torrance calls for a transformation of the traditional cosmological argument. The function of this would be to

coordinate and integrate the logical sub-structure of both disciplines where they impinge on each other. This will clarify the task of the scientist in terms of the bounds of his questioning and force him to ask crucial questions at the boundaries of his knowledge concerning the intelligibility of the universe. This will also aid the theologian in ordering knowledge of God in ways which correlate with the way God has revealed himself in physical, created realities, and help the theologian to root out ways of thinking and habits of mind which are contrary to the way God has revealed himself in the continuous unitary field of creation and in direct revelation through his Word. It is within this overlap where science and theology operate with the same rational structures, where they share the same basic universal rationality, that they may transform each other.[GGT 106-107] This really is where Torrance's hope for the future lies, as the implications of new science cut the ground from under moribund dualistic and idealist theology and open the way for integrated and realist thought forms.

We recall our previous discussion of foundationalism based on Euclidean forms of reasoning.[6] We reviewed how modern science and mathematics has found the need for other forms of reasoning and the need for non-Euclidean geometry. We noticed how in a non-foundational

structure of knowledge, operating ultimately with non-euclidean thought forms, there might well exist "local" areas of Euclidean reasoning, elucidating the inner logic of the whole system. These Euclidean areas do not have a status or existence of their own but rather exist as dependent on the wider field of knowledge. Strict mathematical logic and reasoning is not ruled out so long as that logic and reasoning does not form a tight closed, self-sufficient structure.

Torrance himself makes exactly this point and speaks of the relationship between physics and geometry in the natural sciences. He points out that since the advent of relativity theory, physics can not be bound by Euclidean geometry. However, we do not reject geometry but place it within physics.

Thus it is evident that physics, as we now pursue it within the spatio-temporal structures of the real world, cannot be subject to the framework of Euclidean geometry without radical distortion and loss of its essential dynamic and material content. Rather must geometry be put into the heart of physics, where it is pursued in indissoluble unity with physics as the sub-science of its inner rational or epistemological structure and as an essential part of its empirico-theoretical grasp of reality in its objective intelligible relations.[GGT 92]

While geometry then is a sub-science of physics functioning to order the inner logic of physics, it is itself dependent on a wider field of knowledge derived

from an essential faith in the nature of things and a non-logical penetration into the inner structures of reality.

For Torrance natural theology operates in exactly the same way in theology.

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.[RST 39]

Rather than two types of theology suggesting two types of God, natural theology has no independent, self-standing structure apart from within revealed theology. It is concerned with the natural world and the logical coordination of theology with it to create a continuous field of integrated knowledge. It is through natural theology functioning properly as a sub-science within theology as a whole that the empirical and the theoretical are brought together, form and being are united. Our basic evangelical insights into God's nature are brought together with our experience of God in our diverse and complex world. It is here that real life meets abstract doctrine.[RST 39-40]

Natural theology is therefore an a posteriori activity. Inner rationality in theology as in science is

dictated by the subject and not imposed in an artificial way. The inner logic of theology gradually crystallises at the end of a long process of questioning and sifting.

A posteriori science involves rigorous methodological questioning of all preconceptions and presuppositions and of all structures of thought independent of and antecedent to its own processes of discovery.[KBBET 146]

iv) A way forward?

Torrance's recasting of natural theology is in no sense a retreat in the face of modernity as it may well appear at first. Torrance successfully releases the theologian from a fruitless shoring up of various rational arguments for the existence of God in the face of post-Enlightenment philosophy. From a defensive mode he gives natural theology the crucial place at the boundaries of Christian thought challenging secular thinking and forcing those outside to ask questions of their world views and ways of thinking. It is able to loose people from distorting preconceptions and bring them to a place where they too may intuit and experience God for themselves.

It places a challenge to theology also, prising the theologian out of his ghetto, forcing him to engage with the whole field of knowledge and cleansing his own habits of thought. The modern bifurcation of arts and

sciences is made obsolete with such an approach. Indeed, without interdisciplinary dialogue each particular discipline is in danger of losing touch with its own allotted subject, as distorting ways of thinking distort the thinker's view. As Torrance repeatedly points out this is exactly what has happened in theology and science. His great vision is for a new synthesis in thought as these false divisions fall away as the sheer rationality of reality, both divine and created, forces itself on our minds.

It is at this exciting boundary between theological and non-theological thought that Christianity poses its most crucial claim to the world. At the end of a chapter entitled "The transformation of natural theology", Torrance brings the challenge to a head. He makes the point that Christianity has contributed many of the fundamental assumptions that makes science possible. Thus we must insist on what he calls a "Christian Natural theology" as opposed to a natural theology supplied by another religion.[GGT 107] He admits that many might find this exclusive in a world where universality and plurality prevail. Certainly this is true in a world that is increasingly intolerant of anything but dogmatic pluralism. But, says Torrance:

it may be said in reply that for Christians the incarnation occupies a place or unparalleled singularity, in that it is held to be the union of the one God and a particular man in the one

person of Jesus Christ. This is undoubtedly a stumbling-block for many people today, as it was for the Greeks in the ancient world, because of the horror of people then and now for the unique event. But it is precisely at this point that Christianity stands or falls, for it cannot, without ceasing to be what it is, give up the claim that Jesus Christ is the way, the truth and the life, and there is no way to the Father but by him.[GGT 108]

This is central to the understanding of Torrance. Torrance is not proposing a world view, but rather he is saying this is the way things are, and it is only in Jesus Christ, and him alone that science, theology and any type of thinking will find its completion. Jesus Christ, God as a human being is the one place that empirical reality in all its depth and diversity will find its answer. The sheer belligerence of contingency in that reality, its God given inner rationality, will always pose the question and bring us back to the place where we are faced with the facts of Jesus Christ. This is the field of natural theology to bring people to that point and confront them with the fact that there are no other alternatives. It is at this point that we either reject God or enter into the intuitive faith-relationship where we find our language, our reason and our logic finally verified in a non-logical way.

2) Tradition and history.

Tradition, if we define it as the historic interpretation of scripture by the church, is at first sight very prominent in Torrance's work. A cursory reading of Torrance will reveal a great reliance on the great theologians of the past. We might assume that for Torrance that tradition is a very important authority. He has worked extensively in the area of Patristics, particularly with Athanasius and Cyril of Alexandria. A very recent work is devoted entirely to an examination of the Nicene-Constantinopolitan creed[TTF]. He frequently quotes Anselm, Duns Scotus, and of course Calvin and Barth.

However, it is clear when one looks closer that Torrance has number of favourite theologians to whom he returns time and time again. Huge swaths of theological tradition are ignored or played down. This is because actually Torrance has very little time for the way tradition has operated in the Church throughout the ages. We noted in the previous chapter how Torrance has a very "black and white" approach to truth. A person is either in touch with reality or is not.[7] There are no half measures. Torrance thus alights on various historical figures in theology and science whom he believes have been in tune with reality in various ways.

He pinpoints times in the history of theology when thinkers have worked in realist ways under the intuitive control of their particular subjects. Those who have not responded properly are excluded or held up as warnings for those who would follow. Torrance however, is not interested in the flow and development of history as such. Daniel Hardy has recently recognised this weakness in Torrance's approach. Speaking of Torrance's tendency to concentrate on individual occurrences of proper orientations to truth he notes:

As we saw, Torrance has produced fascinating and valuable accounts of the history of theology and natural science, evaluating the basic decisions taken by major figures in the past and present as correct responses to truth, but it remains a question whether this is a fully historical account. The truth of history may be more than the achievement of correct accounts of the truth.[8]

Torrance thus does not invest the ancient writers of the Church with any particular authority any more than he would a modern theologian. He refers to them frequently simply because he believes that they demonstrate the type of theology he advocates. They are theologians who made correct responses to truth. Indeed to invest any human institution with special authority would be alien to Torrance. All statements credal or otherwise must be open to revisability in the light of their object. The creeds for instance are authoritative for Torrance, not because of their antiquity or universal acceptance but

simply because their content demands acceptance as appropriate responses to God's revelation in Jesus Christ. Torrance therefore has little to say about the role of tradition in the Church, indeed for him it has no specific role and in this respect his theology is deficient.

3) Holy Scripture.

Perhaps more than anywhere else it is in Torrance's understanding of the role of scripture that we really see his epistemology at work. It is the "working model" of all that we have previously discussed about how we apprehend and express truth. Clearly the Bible has had a dramatic effect upon Torrance personally. He tells how it is his habit to be

reading several chapters of the Bible every day and letting them soak into the depths of my being, a habit which I have continued all my life.[KBBET 83]

Torrance is no "objective" or uncommitted reader of the Bible for it is there that he personally encounters God:

the Holy Bible is to be approached and read and heard with the utmost awe and reverence for it is the appointed place where God addresses us directly and personally.[KBBET 84]

Whilst Torrance has a clear commitment to the Bible and the God of the Bible, he is no "conservative

evangelical" or crude inerrantist, and as in other areas his approach owes much to Barth. He freely admits this for,

when I opened the pages of Karl Barth's books and read the Holy Scriptures in the light of the startling questions he asked about the strange new world within the Bible and the dynamic nature of the Word of God, my study of the Bible changed into a higher gear.[KBBET 83]

Torrance, however, is not simply restating Barth, but develops Barth dramatically and integrates his view of scripture into his overall epistemological approach. Torrance's position is consistent with his overall stance of non-foundational realism. This gives rise to a fascinating and profound view of scripture.

i) The nature and origin of scripture.

For Torrance there is a clear divine origin for the canonical scriptures. His position however, involves no crude "dictation" theory, whereby the scriptures are simply given as the pure written Word of God from above. His doctrine of scripture issues directly out of his Christology as we have discussed it in Chapter Two. As we saw there it is Jesus Christ who is in essence the very Word of God in human form on earth, the one who validates our human language for speaking of God and the one who shows us what God is like. For Torrance

therefore the scriptures can only be the Word of God in a secondary and derived sense, but nevertheless for him the one way in which the Word of God is still heard after the ascension.

Torrance is not prepared to settle for an understanding of revelation which is non-verbal and mystical. By revelation he means

not some vague, inarticulate awareness of God projected out of the human consciousness, but an intelligible, articulate revealing of God by God whom we are able to apprehend through the creative power of His Word addressed to us, yet a revealing of God by God which is actualised within the conditions of our creaturely existence and therefore within the medium of our human thought and speech.[RET 85]

For Torrance the Word of God to man is Jesus Christ and therefore he is the message of scripture Old Testament and New, the Old validated and fulfilled in Jesus Christ. The Bible is the one and only place where we may be directed to Jesus Christ.[RET 121]

These are startling claims to make for any book, and claims that arise from the way in which Torrance understands the scriptures to have formed around the person of Jesus Christ and their unique interaction with him, making them much more than simply a report of various religious events.

For Torrance the story of the Bible begins in the very choosing of Israel. Through the nation's history and God's dealing with it, an appropriate environment was formed for God to speak.[TIR 138]

God adapted Israel to his purpose in such a way as to form within it a womb for the incarnation of his Word and a matrix of appropriate forms of thought and speech for the reception of his revelation in a final and definitive form.[RET 87]

It is into this setting that Christ is incarnated, the very Word of God.

The problem remains, however, as to how this Word is to be communicated to those that come into contact with it, those that come into contact with the initial witnesses and how this historical manifestation of the Word at a particular time, in a particular place, is to be communicated universally and communicated through time after the historical events have passed. Torrance's answer is the Apostles. The Apostles constitute a "hinge" or a "cardinal". It is with the Apostles that the "vertical" revelation of Christ becomes "horizontal" as it is mediated to people and history.[TIR 43] As the Word of God comes to Israel and operates within the horizontal dimension of contingent existence, and speaks and acts in history, so a small body of divinely appointed followers forms around Jesus.[RET 91] A response to the Word is created and this response among

the Apostles becomes the authoritative response for all time. Through the Apostles the eternal Word of God becomes historical and communicable through the ages.

It is around this group of Apostles that the Church formed and it is their obedient response to the Word of God that became the authoritative norm. The Apostles are not mere reporters of the events of the Incarnation but are themselves changed and remade in the encounter. It is this encounter reported that allows others in the historical tradition to be brought to the same encounter and to think of Christ in the same way.[TIR 41-42] As Torrance states:

The Apostles were the primary, the foundational Christians (they were chosen, appointed and trained as such), and it is upon their knowledge and understanding of the divine revelation that the whole Church rests, so that the apostolic mind is determinative for all theological activity within the Church.[TIR 42]

It is their response to the reconciliation offered by Christ that is to be the pattern for all time.[TIR 136] The Apostles are Christ's tool to bring his Word to humanity. It is out of this Apostolic response to the Word that the New Testament was formed, itself a response to the Word and formed by the encounter.[RET

92] The scriptures are themselves an obedient response to God's Word.

They are divine Scriptures, not that they are actually dictated by the Holy Spirit, but that they were written by holy men as they were obedient to the operations of the Spirit who has spoken the Word of God to His people throughout the way of Israel at sundry times and in diverse manners, and has in these last days spoken to us by the Son of God.[EF LII 134].

Torrance summarises the purpose of scripture as

to enable us to stand with the original witnesses under the creative impact of the Word which they received and obeyed, and to be drawn into the sphere of its effective operation in the world where we, like them, may learn to repent and believe the gospel, give thanks to God and live in communion with him.[RET 93]

The Old Testament is taken up also as Christian scripture as the record of God's dealings with Israel and his prophetic speech anticipating and preparing the way for the Incarnation. The Apostles are the bridge between the old Israel and the New.

For Torrance the Christian faith is biblical, for the Bible is God's chosen way of making his Word known to us throughout history.[RET 94] Crucially however, the Bible is not simply a record of historically true events, but a divinely inspired record of the dynamic encounter of a community with the living Word of God, functioning as

the divinely appointed place where throughout history humanity may be brought to that same encounter.

ii) The relationship between Christ the Word of God and the word of God in the Bible.

Scripture is commonly called the "word of God" in Christian circles. Indeed in modern Anglicanism the public reading of scripture is followed by the statement "this is the word of the Lord". But what does this seemingly clear assertion amount to?

Clearly with Torrance's exalted Christology the Bible can not be the Word of God in the same sense that Christ is the Word of God. He states as he summarises Barth:

The Bible itself is not to be thought of as an incarnate transcription of the ineffable speech inherent in the eternal being of God, for that would presuppose a latent identity between the word of man and the Word of God.[KBBET 88]

He goes on to quote Barth approvingly:

"The Bible is not the Word of God on earth in the same way as Jesus Christ, very God and very man, is that Word in heaven".[KBBET 88]

The scriptures have a subordinate relationship to Christ; they are derivative in the sense that they are dependent upon him. We recall Torrance's view of language as a transparent medium through which we

apprehend reality intuitively, as discussed in Chapter Two. The words themselves do not have an exact correspondence with the reality signified; there is an inbuilt imperfection in those words that points us away from the words themselves. This view of language applies to scripture also. Scripture is a transparent medium through which the light of Christ shines into the world. It is not that light itself. The scriptures point us to Christ: they are self effacing.[RET 94-95] Torrance warns against a kind of "bibliolatry" where more stress is placed on the Bible than on the Christ it bears witness to. If we concentrate so much on the text that we forget the reality it points us to, then its meaning becomes clouded and unclear.[RET 96] Nevertheless we are to have a profound respect for scripture because of its God-ordained function in bringing God's Word to us.[RET 95] This relationship will become clearer as we deal with the matter of biblical interpretation.

iii) Fundamentalism and liberalism, a third way?

We have suggested previously that Torrance provides a third way between non-foundationalist idealism and foundational realism with a subtle brand of non-foundational realism. This translates into the field of scripture as an approach to scripture that purports to bridge the gulf between theological liberalism and

fundamentalism. In our first chapter we hinted at what a non-foundationalist approach to scripture might look like. We suggested that it might be more open-ended and that it would take more seriously paradox and the diverse, multi-layered nature of the biblical documents. This certainly turns out to be the case in Torrance, as we shall discover. First, however, we need to understand Torrance's objections to liberal and fundamentalist approaches to scripture.

a) Liberalism. Clearly the title liberalism covers a multitude of opinions and nuance of theological shading. Torrance's case, however, is against that type of liberalism that starts out with dogmatic literary and philosophical theories and subjects scripture to them. This is contrary to Torrance's whole approach of allowing the object of enquiry (in this case the scriptures) to determine its own rationality. The liberal denial of the deity of Christ, for example, cuts the link between God and his revelation. Without this link scripture ceases to be divinely inspired and the interpreter is thrown back onto his autonomous reason. This alien rationality becomes the judge and arbiter of interpretation leading to distortions and loss of meaning. This is a fundamentally dualistic mindset whereby the human mind is disengaged from reality in a world of its own making.[RET 15-16] Such a disjunction

between the mind and reality can lead to what Torrance calls "operationalism", a pragmatic way of organising empirical data, with no real link claimed between this data and reality. Theories and statements have no bearing on reality and are simply arranged in convenient ways.[RET 67] Torrance cites existential exegesis as a manifestation of this in biblical studies.

Existential exegesis is a way of interpreting biblical documents by using them as a foil to enable the human subject to take up a position in the universe consonant with his own self-understanding in such a way that the universe of things and people becomes meaningful for him.[RET 67-68]

But he says it is really a retreat from reality where God reveals himself to us, and an emptying of the meaning of Christianity. Such an approach disintegrates under the spotlight of realist science and shows itself to be simply a game with words.[RET 68-9]

With regard to the whole historico-critical school of biblical hermeneutics, Torrance is himself highly critical. Torrance believes that the whole Greek and Newtonian "container" notion of space that we discussed in our first chapter, although rejected by modern science, is alive and kicking in modern liberal biblical scholarship. This notion is at odds with the idea of an interactionist God and a contingent universe. Form criticism and redaction criticism operate with such

assumptions. For example, modern scholarship regularly imposes alien literary forms on the events in the Gospels. Alien thought forms are read into the consciousness of the biblical community and hypothetical situations have to be postulated to account for these thought forms. Torrance notes mockingly that this is the sort of situation where it is

useful to have two different conceptions of history, one to show that the event-situation recorded by the Evangelist is historically impossible and must have been invented by them, and another to justify the hypothetical event-situation in the community as existentially meaningful.[RET 81]

Torrance notes that with such a dualist mindset it is easy to bend the evidence or to make it fit the interpreter's pre-conceived theological mindset.[RET 79-82]

Torrance points us to a profound failure in the whole enterprise of historico-critical interpretation:

In spite of a thousand modifications when almost every new scholar, especially if he is German, comes up with a new slant to the quest, and in spite of the fact that we have learned an immense amount about the Bible, its language and its message, we are nevertheless no further forward to our objective along the road, for the historical Jesus keeps on eluding us.[RET 82-83]

It is clear then that for Torrance the whole direction of much modern scholarship has been misguided and a radically new approach is required.

b) Fundamentalism. If such a new approach is required for Torrance it will not be a retreat into conservatism and fundamentalism. With Torrance's rejection of dualistic, Euclidean, foundationalist modes of thought, there is a rejection of foundationalist hermeneutics. We noted in Chapter One the sort of theologians this includes, Perkins historically and Van Til and Packer more recently, and in the United States the great rise in Christian religious fundamentalism this century.

Torrance points out that fundamentalism has difficulty in conceiving of any sort of dynamic view of revelation. The problem lies in understanding God's ongoing involvement in his revelation, particularly in the Bible.[RET 16-17] For the fundamentalist the Bible is God's truth given once and for all in a pure and uncorrupted form. It is a repository of axiomatic truths on which we build the Church and a tight theological programme on euclidean principles. For Torrance this smacks of dualism since this rigid framework of beliefs built up from the axioms of scripture is inconsistent with the nature of scripture itself. The origin of the Bible is dynamic and living but fundamentalism gives to its beliefs a rigidity and finality that is closed to the very God from whom they derive. Fundamentalist doctrine is secure from the questioning of God himself.[RET 17] The structures of belief erected by

fundamentalism become self contained, logically consistent, closed Euclidean systems based on an infallible Bible which is itself self contained, logically consistent and a closed euclidean system of divine knowledge. Thus the Bible is cut off from God himself. The effect of this is actually to make derived doctrine master of the scriptures themselves so that the scriptures can only speak with the voice of fundamentalist doctrine.[RET 17] Scripture is gagged and so is God!

The mistake made by fundamentalists is of investing words and statements with ontology in themselves. It confuses concepts with the reality to which those concepts are intended to direct us.[RET 69-70] This results in what Torrance describes as an "ultra-realist" position. When this occurs statements substitute for the realities they signify or are mistaken for them; and the result is the opposite of what is intended, the realist position actually ceases to be realist at all but rather cut off from objective reality itself.[RET 66] Rather than being faithful to the Word of God, the fundamentalist disfigures and obscures it as it is forced through Newtonian, dualistic, Euclidean categories and made to fit into logically consistent statements of faith or belief. He is not therefore an advocate of fundamentalism.

c) Torrance's third way. We saw how important were the Apostles for Torrance's understanding of the formation of the New Testament. The Apostles were not subjects of divine dictation, recording the oracles of God, but the Bible represents the obedient response of people to the Word of God. The Bible is wrought in this world of sin, judgement and imperfection:

The Word of God comes to us in the midst of our sin and darkness at once revealing and reconciling, but it comes with strong crying and tears, pressing its way through the speech of our fallen flesh, graciously assuming it in spite of all it's inadequacy and faultiness and imperfection, and giving it a holy perfection in the Word of God.[TIR 139]

The Bible is not the pure Word of God then. It is not inerrant and infallible on a linguistic and historical level; it does not share the sinless perfection of Jesus Christ. Nevertheless God uses these imperfect human words to communicate his perfect divine Words.[TIR 139]

This is consistent with a non-foundational view of things, a direct logical link between the Bible and the God of the Bible cannot be put into words. It is a non-logical link wrought from God's side of the epistemic gap. As such it is not complete in itself (c.f. Gödel), its very inadequacy points beyond itself to God. Its lack of perfection is crucial if its function of pointing away from itself is to be fulfilled.

There is then no necessary perfection in scripture as a product of human writers. Nevertheless the Bible is the Word of God to us. There is an element of the miraculous at work here; for by the work of the Holy Spirit there is within scripture a correspondence between human words and God's Word:

the Bible is tied to the Word of God, and is thereby assumed under the power and disposal of the Word of God in such a way as to be constituted Word of God to us.[KBBET 102]

Despite their human imperfection the holy scriptures are the medium chosen by God to communicate his perfect Word.[TIR 139]

The word of God has wrought so effectively in and with the human language of the Bible that it has achieved from within it a true obedience to God.[TIR 139]

This correspondence of the word of man and the Word of God in the Bible rests entirely upon the freedom of God and his grace. Although it is imperfect from its human point of view nevertheless we accept it as the Word of God because of God's action through it.[TIR 140]

Because of this the scriptures are authoritative and they

mediate to us in and through itself the exemplary obedience of Christ as the authoritative pattern and norm for the obedience of the Church in all its thinking and speaking.[TIR 140]

The Bible then is not authoritative simply because it is a storehouse of axiomatic truths; Torrance rejects that fundamentalist approach. Neither is it simply a product of a religious community searching for God. It is formed by free obedience to the Word of God, and it bears the marks of being formed by close contact with the Word of God. And as God by his Holy Spirit speaks through it, it becomes to us the Word of God as we see the Word of God through it. It is authoritative because of God's initiative. It is authoritative in the encounter with God. The authority of the Bible for Torrance is dynamic and not static. So Torrance can say:

The Holy Bible is thus to be cherished and interpreted with full theological realism as the Word of God. As the risen Lord came to his disciples in the upper room through closed doors, so by the power of his resurrection he continues to make himself present to us through the pages of the Bible, unveiling to us what has been veiled, and opening our eyes to understand the Scriptures.[KBBET 110]

iv) Biblical interpretation and theological belief.

We have seen how Torrance sees scripture not in terms of a collection of axioms on which to build a theological structure. We have also briefly noted that authority in scripture is dynamic and not static. It is clear that with such a unique book a very particular type of hermeneutic will be needed. This hermeneutic

very clearly takes as its model Torrance's general approach to epistemology as we have outlined it in previous chapters. Rationality is given by the object; apprehension of the object is through intuition. Language works transparently guiding the knower to the reality to be intuited and verification of intuition as correct is again internal relying on the three levels of enmeshment set out in Chapter Four. As we have suggested scripture is the "working model" of this approach.

a) Language. We have noted already that Torrance sees the text of the Bible not as the repository of truth itself but as the means through which we come to a knowledge of that truth. It is through the scriptures that we are led to the same encounter with God as the original witnesses, thus the scriptures are "spectacles" that direct us to the reality of God.[RET 64] We only know the meaning of the scriptures as we know through them what is being pointed to, which is something other than themselves.[RET 66] Thus limited and imperfect human language is used by the Holy Spirit to point beyond us to God, we are directed to intuit the ultimate reality of God which can not be confined by words.[TIR 31]

b) Commitment and repentance. It is through this process of intuiting God through the words of the Bible and as

we encounter God himself that we are changed in the process. Indeed this change is essential for the reader to encounter God through the Bible. There is required a basic stance of faith. This is faith in the sense that Calvin meant it, an orientation of the reason in a particular direction. The reader of the Bible has to allow his mind to know the subject of the Bible in accordance with the nature of the subject who is God.[HJC 65] Unless we do this we approach the Bible with an alien set of philosophical, literary and theological, assumptions, and we impose them on the text, obscuring its message. We have to have a rationality appropriate to our subject.[RET 97] To impose a foreign rationality would be to be guilty of a dualistic split between form and subject. Rather we are to allow the Bible to interpret itself

out of the intelligible forms intrinsically embodied in its actual subject matter, and therefore in the semantic correlation of what it says and that to which it refers.[RET 98]

This requires an ongoing revolution of our beliefs, presuppositions, and ways of thinking as we encounter God in Jesus Christ in the Bible.[RET 83] This is the radical metanoia or repentance that we spoke of in Chapter Three. If we are to hear God speak through the Bible we can not remain aloof or disinterested in it or

in the God it directs us to if we are to remain rational in our approach. Commitment is therefore required in the theologian, a scientific commitment and a scientific act of faith that is self evidently demanded by the object of study[RET 99]. This unique object requires a unique rationality that ultimately involves reconciliation between the sinful reader and God. The type of rational restructuring is much more radical than when, for instance, the object of study is a contingent object, a scientific phenomenon or another book. As we stand with the original witnesses in the Bible we encounter God himself:

true hearing of the Word of God coming to us through the human words of the Bible which is faithful to those words can take place effectively only within the sphere of reconciliation to God.

All this means that to hear and interpret and appropriate the Word of God speaking to us in the Holy Scriptures we have to subordinate our own presuppositions and conceptions and indeed the whole of our humanity to the critical and creative activity of that Word effectively at work in the humanity of the Bible. We find ourselves at the bar of the divine judgement where we are summoned to repentance and are forced into ruthless self criticism.[TIR 142]

Academic biblical interpretation therefore cannot be anything other than a spiritual and sacred exercise even in its most sophisticated form. Torrance is sure that we can not engage in it

without a living, personal experience of that Truth, and without constant prayer that we may be given illumination to understand and ability to speak the Truth which by its ultimate nature is utterly beyond us.[RET 136]

Therefore any attempt at interpretation which seeks to deny this, for example an approach that denies the deity of Christ, is doomed to failure, because it comes with presuppositions that refuse to be challenged or restructured. For Torrance this kind of liberal approach is in fact far too dogmatic.

c) Interpretive frameworks. How then do we form theological belief? How do we make theological statements and how do we build up a systematic view of God and his relation to the world? How do we engage in biblical theology? Clearly it is not by the fundamentalist method of "proof texting" or building a logically tight structure of knowledge based on axiomatic biblical statements.[TIR 33] Rather it is a tentative exercise in which provisional and open structures of knowledge are built up as we encounter God. It becomes an exercise in "fluid dogmatics" where statements about God have an openness to God and an inherent revisability.[RET 49-50]

Torrance is thus proposing an evolving set of beliefs, an evolving mode of rationality that is

progressively adapted, refined or even totally scrapped as we further encounter the Word of God. This provisional model of theological truth is thus used by the theologian to further understand and elucidate the biblical revelation. It becomes an interpretative framework, a tool for further exegesis and encounter with God.[RET 70-71] It is as the structure remains open that it can continue to direct the theologian away from itself to God. When the interpretative framework becomes fixed, rigid and internally consistent it ceases to be of use in this way and God is silenced.[RET 71] The inner logic of the interpretive framework is not guaranteed because of a logically necessary relationship with foundational axioms but because of a non-logical link with the Word of God. It is these logical patterns that reflect the rationality and pattern of truth in God. These logical patterns themselves must be open themselves to that truth so that they do not become fixed or identified with the truth itself. They serve as a tool to understand God through the Bible further, and must not be allowed to control the Bible.[RET 117] This is what occurs in fundamentalist exegesis.

d) Circularity in the exegetical process.
Interpretation of scripture is much more than logical deduction from the surface meaning of biblical

statements. Careful exegesis of the text is crucial, but not as an end in itself. We do this so as to

follow through the semantic reference of their witness and reports so that we also may experience and apprehend the living God in the Reality of his own Words and Acts for ourselves.[RET 104-105]

Exegesis allows us to place ourselves in the place of the first witnesses and intuit the reality of God in the same way as they did. We follow their authoritative response to God and intuit the same realities as a result.

As we approach the Bible we do not remain with the surface meaning but allow the Bible to point us away from itself as it is open to God and reality. To remain in the text is to treat the Bible like a logically consistent closed system. As we do this our way of thinking is changed by the rational order that underlies the biblical text.[RET 119] Biblical interpretation, then, is about going beyond inadequate human words to the inner rationality that they reflect and being directed to make the appropriate heuristic movements to self-evidencing reality. [RET 155-156 HJC 67]] Thus in this way we begin to gain preliminary insight into the rationality of God. This preliminary insight forms a tentative interpretive framework which we then use to

further tease out the inner rationality of God in scripture.

There is an inherent circularity in this process in which we continue to refine our theological framework. We return to scripture with our new statements about God to guide us in further interpretation. New insights are fed back into the framework which are then applied to scripture again. This process continues with greater and greater refinement of the theological structure:

What must guide theological statements is certainly the truth content of the Scriptures, but what must determine theological formulation is the objective truth forced upon the interpreter of the Scriptures by God himself.[RET 135]

It is essential however that the structure of theological statements remains open to God and is always seen as revisable and refinable. This is where Torrance differs from the fundamentalist whose theological structure, based on axiomatic truth in scripture, soon becomes closed and fixed, the result is that scripture is forced through the mould of doctrine and conformed to it. Nuances in scripture are ironed out and paradox and discrepancies are explained away. With an open theological model, with a dynamic view of revelation, the theologian cannot silence such inconvenient parts of

scripture so readily, but has to take account of them, follow them through and allow them to alter his rational framework. This obviously makes for a less neat and tidy theology, but perhaps God is bigger and more complex than our neat formulations of him. As Torrance himself says

we may not boast of our orthodoxy or be dogmatic about our interpretations and formulations, for all we do is questionable and fallible.[RET 123]

e)The Homoousion. The hypostatic union between Christ and the Father is used again and again by Torrance as an example of this whole process at work. The homoousion is not explicitly a biblical doctrine. But, says Torrance, it is the inevitable outcome of following the semantic reference of biblical images to the underlying rationality that formed them.

The homoousion is thus an articulation of what the Fathers of Nicaea had to think and say when they set themselves to a disciplined and objective inquiry into the biblical witness to Christ, for its basic formulation had already been given by the Apostles themselves.[TIR 40]

It is a compressed statement in human language of the inner rationality and inner relationship of God himself, not a summary of the biblical statements but a summary of the rationality behind them. This is the reality to which the scriptures point. The homoousion now serves as

a guide or "conceptual lens" [RET 118] to further deepen interpretation of scripture, always remaining open to new intuited insights.[RET 112-113]

f) The scope of scripture and the truth of God. The fundamentalist appeals to the scriptural text as his ultimate authority; it is axiomatic truth. This inevitably leads to a "proof" text approach to justifying various doctrines. Anything can be proved from the Bible. Torrance notes how Athanasius came across this in his day:

The Arians appealed to the scriptures to justify their own errors, but as Athanasius tirelessly points out they were simply putting on biblical language like sheep's clothing in order to maintain their own inventions.[EF LII 458].

Torrance's final appeal is not then to the words of scripture and certainly not to tradition or the teaching of the Church, but rather to the truth of God. Torrance here is following Calvin and Athanasius too as we shall see. We interpret scripture properly in the light of the truth of God. The truth of God becomes apparent through the study of scripture. This is the circularity that we have noted previously. Our interpretations are tested as we trace them back to the rationality of God behind the surface meanings.[RET 122] As we study scripture we gradually have a more profound idea of the nature of the

inner logic of the Bible and the inner logic of God. It is this inner logic that guides our future interpretation. We thus gain a distinctive slant on scripture, a divine perspective that points us towards correct interpretation.[RET 101-102] This slant on our interpretations is called the "scope" of scripture. It is a term used by Athanasius and refers to the

general perspective or frame of reference within which the Scriptures are rightly to be interpreted.[EF LII 454]

Thus when interpreting difficult passages we may apply the usual ways in which the Bible speaks of things to help us, the whole slant of scripture can guide us.[EF LII 457]:

it is only by making use of the scope of Scripture and faith as a canon of interpretation that we can disengage the good or right sense of the text from false or alien senses imposed upon it[EF LII 463]

For Torrance that slant is the revelation of Jesus Christ.[EF LII 460]. Theology is of a fundamentally christological shape. This christological slant guides us in our biblical interpretation and helps us to test doctrine to see whether it fits into the structure of the whole.[TIR 148-149]

g) Verification. Torrance's ultimate authority is God himself. We derive knowledge of God through the Bible.

We test our interpretations of the Bible ultimately against the truth of God. Verification in biblical scholarship and theology is internal and circular. We recall from the previous chapter that this does not have to be disastrous. In a non-foundational system it is the only way to go about truth testing. We cannot test statements against fixed foundational axioms since they do not exist. Also in theology we are concerned with a unique object, God, the source of truth itself. There is no standard of truth with which we can compare him.

Torrance's safeguards for correct interpretation and correct theological statement follow the pattern of three-fold verification set out previously:

First, Torrance's whole emphasis on scope, the slant of scripture, is a concern for enmeshment and coherence in the theological framework. Interpretations that do not fit into the orientation of scripture require close scrutiny to ensure they really do derive from the rationality of God.

Second, Torrance is interested in heuristic fertility. Thus, theological concepts are fed back into the hermeneutical process to guide the interpreter to new intuitive insights. As concepts such as the homoousion for example have been so heuristically

fertile they have confirmed their truth. Torrance writes of theological statements that are grounded in God's self-revelation, and

they will manifest a persistent fertility in serving a deeper and richer apprehension of the truth than they did when they were first formulated.[RET 145]

Third, global enmeshment is obviously essential for the whole theological programme as it impinges on the whole field of human knowledge. The importance of this has been set out elsewhere as an essential part of the verification process for Torrance.

Summary.

Torrance thus sets out a vision for an approach to scripture within the bounds of non-foundational realism. It is highly developed, profound and consistent with his whole epistemological approach. It does indeed set out a third alternative between the idealism and loss of meaning inherent in a liberal approach to scripture and provides a realism without falling into the traps of fundamentalism.

His vision is exciting and illuminating; however one wonders how attractive it will prove to be. It is an

exceedingly subtle and a rigorously complex approach. For the fundamentalist, perhaps temperamentally fond of straight forward, clear truths and ideas, it might seem novel and dangerous, for the liberal perhaps too much of a challenge with its strong realism and its insistence that we have to submit our autonomous reason to God.

END NOTES TO CHAPTER FIVE

- [1] This is particularly set out in KBBET p. 136 ff.
- [2] A perfect example of this is DCO which sets out this struggle in chronological form.
- [3] Chapter One.
- [4] Chapter Four.
- [5] This surely is the job of the systematic theologian, to work out a coherent and internally logical approach to Christian faith based on our basic experience of God arrived at intuitively. Such an approach removes the theologian from areas of meaningless inward-looking speculation to the much more pressing task of appropriating the Christian faith for the modern mind. Such an approach places the systematic theologian's task firmly in the area of the Church's mission.
- [6] Chapter One.
- [7] Chapter Four.
- [8] Daniel.W.Hardy op. cit., p. 89.

CONCLUSION

Overall summary.

An attempt has been made throughout to show that Torrance's concerns and the ramifications of his work go well beyond theology. Thus, we began with a discussion of the nature of foundationalism which has been fundamental to western thinking in general since Euclid, right up to the present day. We considered the destructive effects of foundational modes of thought in theology as they manifest themselves in liberalism and fundamentalism. We introduced the idea of non-foundational systems of knowledge, considered how verification might operate in such a system and looked at how non-foundationalism might operate in theology. We evaluated these two approaches finding foundationalism to be seriously, flawed and non-foundationalism, with some reservations, to be a better option.

Torrance's position was then introduced. We saw how he clearly presents himself as a realist and that this was one reason why he could be misunderstood as being a foundationalist. We explained how realism and foundationalism do not necessarily go together. His understanding of the Christian doctrine of contingency

means that because there is no necessary relationship between God and the world, reality can not be formalised into a Euclidean, foundationalist system. We observed how he opposes the foundationalist assumptions of Newtonian physics and how his own conception of contingency places him in agreement with the epistemological ramifications of Einsteinian physics. Instead of logical links between people and reality Einstein indicated a grounding relationship. We explained how this grounding relationship does not entail epistemological foundationalism. With his advocacy of a non-foundational type approach we saw how Torrance rejects idealism which is the usual correlate of non-foundationalism. The success of Einsteinian physics for Torrance has guaranteed realism in our knowing of the universe and this breaks down the Enlightenment dualisms between object and subject. At this point we noted the influence of Michael Polanyi on Torrance with his conception of the multi-layered universe. We then reached the preliminary conclusion that he is not guilty of epistemological foundationalism, but noted that some theologians, in particular R. F. Thiemann, believe that he is.

In the second chapter we clarified the essential problem at the heart of religious epistemology. We asked the question, "how can an infinite, eternal God

communicate in a coherent and rational way with contingent, finite creatures?" We reminded ourselves that this problem is not restricted to theology but crops up in various forms as the big question in the philosophical sub-structures of many disciplines. We noted that one response to this problem was simply to abandon any hope of realism altogether.

Next we presented Thiemann's analysis of Torrance in order to show how easily Torrance can be misunderstood and to "get inside" Torrance's work more profoundly. The force of Thiemann's charge is based on his belief that Torrance is a foundationalist. We went on to introduce Torrance's ideas of open concept and transparent language in order to begin to refute Thiemann. We saw how Torrance sees this in parallel to an idea in physics put forward by Godel in his incompleteness theorem. Language only has meaning in its imperfection, as it points away from itself. Our human language, although imperfect and contingent can thus point beyond itself to the eternal God and to reality. Words do not have a one-to-one identification with reality, but point beyond themselves to that reality. This understanding of language is crucial if we are to understand Torrance. Without it Torrance would certainly be a foundationalist.

Next we indicated how a foundationalist-realist view of language has created distortions in conservative, Protestant theology and fundamentalism, leading to a forced interpretation of the Bible. We began to suggest that Torrance might give us another option.

The reason for his view of language was set out. We saw that it rests on his understanding of the Incarnation which sets the mode of rationality in the theological enterprise. Rejecting the enlightenment idea that rationality is discovered a priori to our encounter with an object, he believes that rationality is essentially a posteriori and dictated by our object of enquiry. We meet Jesus Christ within contingent reality and therefore contingent language is to be used to speak of him.

We next asked ourselves two questions. The first, a question of epistemology, was as to whether Torrance's theory of language was legitimate in terms of the way God has revealed himself. The second, a question of authority, was how we prevent ourselves falling into subjectivism. These questions led into a discussion of the Incarnation as the solution to the epistemological problem, the means by which God has overcome the logical gap between the world and himself. We demonstrated the inadequacies of Thiemann's position in

relation to this. We showed that Torrance accepts the existence of an infinite, logical gap between God and humanity that cannot be bridged by rational argument. However, we saw how he believes that God has bridged this gap from his side, in the person of Jesus Christ. We noted how this is the centre of Torrance's whole epistemological programme without which it would collapse. Jesus Christ, God incarnate, brings together words and objective reality. God's Word and God's Being come together. By God's initiative the truth of God comes to us since we are unable to reach it for ourselves. It is Jesus Christ who is our ultimate semantic reference point and saves us from relativity. Thus we can construct a theory of knowledge which is non-foundational, and yet realist. It is the Incarnation and only the Incarnation that allows him to reject idealism. The Incarnation is the one God-given place where we may think through to God. For Torrance, the world was created in the way that it was in order that this relationship, through the Incarnation, might be set up. In an assessment we agreed that our two questions had been answered positively.

In closing we dismissed the idea that Jesus Christ operates as a foundational axiom for Torrance. We then set our agenda for the next chapters stating the need to establish for Torrance that Jesus Christ is in fact

the Word of God (a question of verification) and the need to probe deeper into how we should respond to this source of authority. Finally we raised some tentative criticisms of Torrance's system.

Chapter Three set out to expound the inner workings of Torrance's thought. We started by setting out the popular understanding of the relationship between faith and reason and began to illustrate how some misunderstand him on this very point when it comes to verifying that Jesus Christ is the place of God's revelation. In fact, Thiemann also misunderstands him here. We described Torrance's analysis of dualisms in science that lead to the juxtaposition of faith and reason and then went on to consider his dissection of enlightenment philosophy, in particular that of Kant and the emergence of autonomous reason leading to idealism. We noted that underlying all of this was Greek dualism. We considered Torrance's review of the terrible damage that such a view of reason has had upon science and theology.

As for his response we saw how Einsteinian physics is for him the key. Accepting the logical gap between the knower and reality and the knower and God, and the lack of any logical link between statements and reality, he propounds the existence of non-logical

links. At this point we saw how clearly he demonstrates non-foundationalism.

The new physics of Einstein has demonstrated for Torrance that space and time are both integrated into the processes of universal order and has ruined any hopes of a universe explainable within itself. The Einsteinian universe is open non-logically to reality beyond. We saw how this for Torrance calls for a restructuring of our epistemology, sweeping away dualisms between form and being, object and subject. This leads to the overthrow of a priori reason, since physics has shown the existence of real theoretic structures embedded in reality. Reality thus provides its own rationality. We reviewed how Torrance conceives of the link between the knower and reality to rest upon intuition and how reality itself restructures the mind of the knower rather than vice-versa. Faith is thus set in its proper place, not in contradiction to, but as an essential part of knowledge.

We considered the very specific and unusual nature of Torrance's non-foundational realism, resting upon this integration of faith and reason and the function of basic beliefs. In closing we offered some further criticisms of Torrance's work that we will comment on more fully later in the conclusion.

The penultimate chapter raised the crucial issue of verification and asked how, in a non-foundational system, truth can be distinguished from falsehood. Could Torrance's system judge between different structures of thought, for example Christianity and other religions? Could the unique and fundamental place of Jesus Christ be secured? We wondered if Torrance could provide us with new criteria for truth testing that break free from the foundationalism of liberalism and fundamentalism.

We identified that Torrance's method rests upon a real circularity of argument. Truth testing is to be a posteriori and within the circularity of the knowing relationship. We asked if such a non-foundational system could really have enough "backbone" to cope with the rigours of hard verification. Our answer was positive, but such verification could not rest on the basis of logical verification. Rather, we saw that enmeshment is the key in a system reliant on intuitive, non-logical links with reality.

Out of complex and diverse arguments in Torrance's writings we identified three levels of truth testing at work. We then asked if they could apply to Jesus Christ and Christianity. We concluded that the position of Jesus Christ was not logically proveable, but certainly

verifiable within the knowing circle on the basis of a reasoned act of faith. We ended with a note of caution concerning the narrowness of Torrance's conception of what constitutes truth.

Chapter Five has operated as our working model for Torrance's epistemology. We considered in turn natural theology, tradition and scripture.

We saw how Torrance has restructured natural theology, seeing it not as a means of direct access between people and God, but rather as a sub-science of theology. Natural theology's relationship to theology in general, is parallel to the relationship between Newtonian and Einsteinian physics. Torrance moves away from the dualisms in traditional natural theology and sets natural theology within theology as a whole as its inner logical structure. We saw how Torrance has placed natural theology at the crucial boundary between theology and other disciplines. We explained how this was no retreat, but rather a challenge for theologians to engage in rigorous inter-disciplinary dialogue as the God-given inner rationality of theology poses radical questions for those outside.

Torrance's view of tradition however, we found to be inadequate. We noticed that the flow of historical

theology is not of real interest to him. His only interest is in individual theologians, who in his view had made right responses to truth. This we explained, is due again to his very narrow conception of truth.

Finally scripture was our focus and we tackled this in some detail. We noticed first that Torrance has deep reverence for the scriptures, but also that Torrance is no fundamentalist when it comes to the Bible. We found that his doctrine of scripture issues directly from his christology. The scriptures witness to Christ but they are the word of God in a secondary sense only and are to be distinguished from the Word of God in Christ. Scripture for Torrance occupies a unique position as the one place where people can be directed to Jesus Christ. Scripture is a transparent medium through which we intuit Jesus Christ. We found that he offers here, as else where, a "third way" approach between fundamentalism and liberalism. We surveyed his estimation of both fundamentalist and liberal approaches to scripture which were found to be inadequate. For him the Bible is more than a storehouse of axiomatic truths and more than simply the product of a religious community. He proposes that the authority of scripture is dynamic, as we meet God through it and its authority is validated in the encounter. We went on to look at his understanding of biblical interpretation

and how we form theological beliefs and doctrinal frameworks. Finally we considered verification in the formation of such frameworks and discovered that he operates with the three levels of verification that we delineated in Chapter Four.

Concluding assessments.

We stated a three-fold set of aims in our introduction; to present Torrance's complex epistemology in an orderly and comprehensible way, to clarify his position where it is in danger of being misunderstood and to see if Torrance could point to a third approach to theology that transcends the old methodologies of liberalism and fundamentalism.

Regarding the first aim we have attempted to set out Torrance's theology so that its basic structure can be observed clearly, it can be seen that Torrance's epistemology is both a consistent whole and highly distinctive.

It is this distinctiveness that is the key to our second aim. In demonstrating that Torrance holds to the unusual position of non-foundational realism, we have been able to refute those who criticise him as a foundationalist. Clearly his position is subtle in the

extreme and worthy of considerably more attention by scholars that he has received in the past. He must not simply be written off as a crude foundationalist. His writing style may be difficult to penetrate and his form of expression rather overblown at times, but this is no excuse for failing to engage in the substance of his theology.

With reference to our third aim it seems that Torrance does offer a real way forward that leaves behind the old categories of liberalism and fundamentalism. His achievements in clarifying epistemology and authority are very great. He presents a theology that is both intellectually compelling and thoroughly Christian in its total reliance on the Incarnation. His profound dialogue with modern science opens up theology to the whole field of knowledge in a way that is unprecedented and places the theologian back at the centre of the interplay between the various branches of learning. His restructuring of natural theology forces the Christian to be engaged with the world, no longer shoring up the logical foundations of the faith against the onslaught of modern philosophy but rather presenting its compelling internal structure and posing profound questions to the assumptions and canons of modern life.

He faces the real issues head on and argues with a rigour and a detail that can be overwhelming at times. Through his theology Torrance has made a massive step forward in establishing realism in theology and science in a way that takes seriously the inheritance of the Enlightenment. He decisively moves away from the crudities of narrow foundationalism, but does not fall into the relativism and idealism of most forms of non-foundationalism. This is a significant achievement and one which successfully establishes a realist methodology for thought and practise both within Christianity and outside of it.

Torrance opens up the way for the Church to begin to rebuild its confidence in the scriptures and the God of the scriptures. He directs us away from the moribund theology of the present day with its inability to speak with any clear and credible voice in the context of modernity, towards a real alternative. Clearly Torrance's work needs much refinement and expansion but surely he has revealed new possibilities that could revolutionise the way theology is done and the way the Christian church operates. This is of course not to swallow Torrance whole as it were. There are flaws in his theology that need to be understood. We are suggesting that his theology is at best only a starting

point for the radical restructuring that is needed. It is to some of those flaws that we now turn.

One of our main aims has been to clarify Torrance's position in order to defend him from those who have not understood it correctly. Sadly many of Torrance's critics fall into this category. We have attempted therefore to fully set out Torrance's epistemology before launching into any large scale critique. With such a sophisticated, subtle and unusual position it would have been too easy to label him in one way or another, so jumping to wrong conclusions. This has been the mistake of those critics that we have encountered so far. As we have uncovered the framework of Torrance's theology it has become clear that he does not fall into the obvious traps that many suspect. However, there must be criticism because of the limited range of Torrance's vision. Whilst we largely agree with Torrance in terms of what he does say and does allow, we cannot accept what he does not say and does not allow. Whilst we endorse Torrance's basic theological vision, we feel that it should lead on to a wider interaction with the diversity of human life, experience and creation and we have suggested this at various points throughout the thesis. A pivotal factor in this is Torrance's understanding of pneumatology.

1)The work of the Holy Spirit.

It has been a sad fact that western Christianity has had an impoverished doctrine of the Holy Spirit. This has been a consistent trait through many of the great western theologies, and amongst them, particularly relevant to Torrance, the tradition coming through Karl Barth. Torrance has been a significant patristic scholar and his work on the inter-relations of the Trinity have been impressive and detailed.[1] He has a very revealing chapter in God and Rationality called "The Epistemological Relevance of the Holy Spirit". Here Torrance sets out the role of the Spirit in the epistemological process. As far as Torrance goes we would want to agree with him. Torrance points to the work of God's Spirit in the informal, non-logical aspects of knowing. Thus he can say:

Even though God transcends all that we can think and say of Him, it still holds good that we cannot have experience of Him or believe in Him without conceptual forms of understanding - as Anselm used to say: fides esse nequit sine conceptione. This then is the specific domain of the Spirit in theological knowledge, for by His power and enlightenment 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 the divine Being, the eternal Logos and Eidos of Godhead.[GAR 170]

So far so good; the Spirit acts in the gulf between the knower and God and reveals to us the Logos and Eidos, the Son of God. This we must agree with as orthodox doctrine. But surely there is more; the Spirit is at work in other ways too. Surely the Spirit is more than "epistemological oil" in the knowing relationship between people and God and people and the creation. Surely he is involved in the rich diversity of human life, social structures and creation. Torrance's understanding seems to limit God's activity through his Spirit too severely. In his strict Trinitarian formulations, perhaps Torrance is so concerned to safeguard the unity of Trinity that he underplays the dynamic relations within the Godhead. His God in the last analysis is too mathematical and linear in his relationships and therefore too linear in his relationship to the world. Torrance's God sometimes seems a little too structured, a little too neat, tidy, and logical to cope with the diversity of life in the world. These are severe and hard criticisms to make. Clearly they cannot stand without justification. Perhaps the best justification is to see how this works out in practice in Torrance's theology.

2) Faith and response to God and creation.

Torrance's understanding of appropriate ways to respond to God and creation are almost entirely cognitive in the strictest sense of the word. Clearly, however, human beings are much more than cognitive creatures. They are physical and emotional and they are amazingly complex as individuals and infinitely more so in their interactions with other human beings and the created order. Torrance tends to emphasise the rationality of faith and the cognitive side of this response to the detriment of human complexity. Clearly in the scriptures, faith is seen as a much wider and deeper phenomenon. In the Gospels Jesus accepted little children and commended childlike faith. It would seem for Torrance that the little child who runs unquestioningly to meet its father's embrace is deficient in its faith for it fails to fully comprehend the reality of the situation.

Certainly Torrance is right in his emphasis on the cognitive, and he provides a timely counter-blast to those today who would discount the intellectual and rigorous side of belief, but in so doing does he not limit the way the Spirit works in humanity in some of our more subconscious urges and responses? In Torrance's model it would be difficult to include the

possibility of a faith in some cases of mental handicap.

It has been pointed out that Torrance's strict adherence to the model of physical science is questionable. Abraham has questioned this and more recently Hardy has suggested that this model allows Torrance to ignore the diversity of human life and creation, for

such an approach leaves undecided the value question of the productive value of the biological and social sciences for the natural sciences and for theology; it also causes Torrance to sidestep difficult questions about the diversity of creation which appear when one considers the implications of the biological sciences, or those of human diversity which appear in the social sciences.[3]

Torrance's version of the pursuit of truth in Physics is clear and finely delineated. It follows straight, linear patterns and fact and fantasy can be fairly clearly defined. Sciences like sociology or psychology, however, dealing with persons, do not provide such clear answers and certainly judgement and opinion play much larger roles and objectivity is much harder to define. Clearly these types of science deal with the reality of creation just as much as theoretical physics. It is their focus that is different, and they deal with areas of reality where clear cut answers are never possible. By taking physical sciences as his

model Torrance restricts the appropriate response to reality very tightly.

It is this tight approach to truth and falsehood that partly accounts for his deficient understanding of tradition as we saw in Chapter Five. He has a very small list of those theologians who for him have responded to reality correctly. Those outside this group do not interest him. He is not prepared to see anything very compelling in theologians who speak of God and reality in ways that fall outside his strict parameters.

3) Free-will and freedom in knowledge.

We have surveyed in earlier chapters the effect of strict foundationalist epistemologies on the subject of free-will. In those epistemologies correct response to truth is defined by logical derivation from foundational givens. In a closed universe, ultimately people are trapped in a tight determinism of knowledge and action. The human contribution to life is minimal. Thus in strict Calvinism even free choice is predestined. The possibility of free, independent action is small. Torrance's non-foundational realism is a world away from this sort of model. Certainly the distinctively human and personal has its proper place

in the knowing process, and the proper response to reality bears the human mark in the end result. Torrance rejects the concept of a closed universe and replaces it with an open, dynamic system. Clearly within such a system there is real room for a free act and a free choice.

However, Torrance's conception is still rather limited. Free choice is limited to a right response to reality and a wrong one. The diversity of human response to reality in different cultural and sociological settings is discounted. The distinctively human amounts to a structured response under the strict control of reality. If a response is to be correct, then its end result is predicted and structured by reality in a very precise way. Thus the human contribution to knowledge is compared by Torrance to someone doing a puzzle.[TCFK 79] In the act of intuition we struggle with reality until our concepts and basic beliefs align with reality. Our thinking is thus controlled from the side of reality. We reach the desired result when our concepts are devoid of false subjectivities. The end result is decided by ontology; our contribution is the process by which we get there. This leads Torrance to see truth in very black and white terms. We either are in touch with reality as we

obediently allow it to form our minds, or we are in a state of irrationality and disjunction from ontology.

As we look at human culture and society however, difficult questions are raised for Torrance. There are many in the world (perhaps most people in the world) who would approach life in a very different way from Torrance. Perhaps they operate with different cosmologies, yet they manage to live and order their lives in quite adequate ways. Are these people completely devoid of rationality and contact with reality? And, are those whom Torrance holds up as people who have penetrated the deeper structures of ontology so in touch with the world? Surely there is more to human existence than theoretical physics and theology! Hardy points out how Torrance seems to devalue the "mundane devices which human beings use in their life and work, from sacraments to technology" and suggests that "they may constitute proper response to an ineffable reality".[4] Clearly even Amazonian Indians who certainly have never come across Einstein or Michael Polanyi have techniques, symbols and language which in some sense appropriately respond to the reality they find themselves in. Torrance does speak about such mundane entities at one point. He discusses what he calls "pre-scientific knowledge"[TCFK 82], but his discussion makes it clear that such

knowledge is inadequate on its own. It is almost an immature type of knowledge that we leave behind when we really engage with reality. This attitude could be seen as somewhat exclusivist and condemnatory to possibly ninety nine per cent of the worlds population. Clearly their experience of reality is different from that of the scientist or the theologian, but is their different experience to be discounted as irrationality and blindness?

4) Art and creativity.

The limiting of human freedom has serious ramifications for human creativity and the arts in general. Torrance clearly shows the influence of Karl Barth in a deep suspicion of the aesthetic. In Torrance's system we really only have two choices. To conform to reality or to live in the realm of distortions and unreality. This is bad news for creativity, aesthetics and real expression in the human condition.

The question needs to be faced, are human beings just the tools of God who please him when they acquiesce to his demands and conform to his will and pattern entirely, or has he in fact given human beings real responsibility, to make real decisions and to make

creative choices in the universe? Are we simply cogs in the divine machine, or are we in fact, by some incredible mystery of divine grace, actually co-workers and strategy makers in the kingdom of God? Torrance would seem to tend to the former model.

Thus in the field of aesthetics and art he has clear ideas about what constitutes good and bad art. For Torrance art primarily has a semantic function. It works when that semantic aspect points us to reality. Thus art is

form at its most sensitive point where its "antennae", so to speak, are in touch with ultimate reality, form in its transcendental reference to the beyond, to the unformalisable forma formans which acts creatively upon us, not to reproduce itself in our formalising activities, but to call them, as it were, into contrapuntal sequence and patterns of an open texture through which it can reverberate or resound in the human spirit.[RST 98-99]

Hence Torrance's interest in art is in terms of its "semantic intentionality".[RST 99] Art functions as another pointer to the beyond of reality. On this basis it is clear that Torrance does not like some modern art and abstract expression. He states that

when the imagination becomes completely detached from the compelling claims of our actual existence in space and time, it becomes merely a meaningless dream, indulged in for its own sake like a fanciful game. A genuine work of art must have a grip upon reality in its depth, while declining to reduce that grip to explicit formalisation, and so by its nature

indicates far more than it can imaginatively depict to people at the time.[RST 101]

The question must surely be, what is wrong with meaningless dreams and fanciful games? Clearly some art does work in the way that Torrance suggests. A perfect example might be found in the form of icon which clearly points to realities beyond itself. However, to declare in a censorious way that some art is not genuine seems a dangerous activity for a theologian. Must everything in life have an exact semantic function to be valid? Is not play, celebration and fun a rejoicing in the sheer vitality of life? It may not have a "function" or a purpose and so does this mean it is ruled out? Clearly the semantic function of some art is obscure, but is not life in some of its diverse forms semantically obscure also? Could this fanciful game or meaningless dream actually be a reflection of the life and vitality of the Spirit actually playing and dancing in the created order? Could it not be that both the strictly conceived forms of life and the parts of life that are more obscure and spontaneous actually serve the divine plan in the universe? Is the "abundant life" that Christ came to bring, more than a matter of making right semantic relations with reality?

Taking the argument one stage further, do not entropic and destructive entities in the universal order also serve God's purposes? Certainly in scripture God works through forces of destruction and individuals who set themselves against God's purposes, for example Pharaoh. Does not the Spirit work also through confusion and disorder? This question has huge implications, not least for theodicy and the problem of evil, but these go beyond the scope of this thesis. Torrance's system would have difficulty in these areas.

Final comments.

What we are proposing then, is a "softer" realism than that described by Torrance, a realism that takes seriously "common grace" at work throughout the complexity and multi-dimensionality of human life in the created order. This will be one which takes seriously the difference in people's cultural and intellectual situations and the work of the Spirit in and through these things. It will be a realism that sees God working his purposes out through the whole of humanity and not through an élite few who happen to have stumbled on the right philosophical framework to penetrate reality. It will be a realism that allows for a real human contribution to life and the dynamic order of things and real choice and interpretation

within the normative constraints of reality. In this way our apprehension of reality does not stifle us, but validates our interpretations of it.[5] We advocate a realism that actually sets people free to make significant choices, have real responsibility whilst still maintaining a real link with reality that makes those choices significant. The knowing process thus becomes much more of an "interactional dynamic" in which the structure of reality itself is changed and ordered by our activity. Our free choices change the nature of reality itself as we operate as co-workers with God bringing his purposes about. The act of faith, the knowing relation, is not then a static fact but an ongoing process combining thought and action in a forward moving dynamic relationship. It will be one in which human diversity, differing gifts and the fully human have a legitimate and valued place in the ongoing work of God in his ongoing creation.

This it seems is the way forward, taking Torrance's theology with its radical alternatives to liberalism and fundamentalism as a starting point, giving Christians a distinctive yet credible voice in society but taking seriously also the diversity and sheer exuberance of human life as the Holy Spirit works through the complex and sometimes rather messy phenomenon that is human society.

Torrance's own vision for the future as we saw in Chapter Five is of an increasing synthesis of thought as the truths of contingency force themselves upon theologians and scientists alike as the ramifications of Einsteinian physics continue to be felt and disciplines are brought back to their own proper objects. In theology he foresees an increasing coming together as Christians begin to think alike under the compulsion of the reality of God[TCFK 282-283]. Probably Torrance is far too optimistic, for in the last analysis human beings are not robots who react to reality in identical ways and the Holy Spirit continues to move and work in ways of which Torrance can not even conceive.

END NOTES TO CONCLUSION.

[1] One of the few western modern theologies to begin to tackle this area has been provided by Jürgen Moltmann. He considers the range of activity of the spirit outside the church, particularly in secular and political social movements.

[2] See particularly T. F. Torrance The Trinitarian Faith (Edinburgh, T&T Clark), pp. 191ff.

[3] Daniel.W.Hardy op. cit., p. 86.

[4] ibid., p. 89.

[5] This conception of a softer realism is the sort of thing suggested by Hardy, a realism that gives us a normative structure but does not prevent the possibility of human diversity and interpretation.[BSCL 74]

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