CURRENT ISSUES IN THEOLOGY AND THE SCIENCES I:Christian Doctrine in a Science-Oriented World

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Week 1 Christian Doctrine in a Science-Oriented World.

Lecture: Questions as to whether theology is now able to be expounded intelligibly in a scientific world are raised. The contrasting views of a number of scholars, viz. scientists (Richard Dawkins, Peter Atkins and Stephen Hawking) and theologians (T. Gorringe, D.Z. Phillips) who consider the two cannot be happily related to one another are considered, as also the views of those who believe these two disciplines can be happily related to one another. Of the latter, scientists as theologians (John Polkinghorne, Arthur Peacocke and Ian Barbour), theologians who work happily with scientists (Keith Ward, Janet Martin Soskice) and philosophers of religion (Basil Mitchell, Caroline Franks Davis) are cited. The differences in their theological stances, where applicable, are noted, and questions are raised as to whether theological claims can be said to have any substantive value similar to those normally ascribed to knowledge in the sciences. The controversial issues having been raised, students are informed that the endeavour of the course is to show that we need not be left with such dilemmas. The initial task is to locate where the problems arise. These, it will be argued, will become clear from a study of the history of science, particularly as put forward by John Hedley Brooke in Science and Religion, from which an elucidation of the factors which make for partisan viewpoints will become obvious. In addition, it will be shown how important **metaphysical** issues: such as one's frame of reference, one's criteria of judgement, one's presuppositions and assumptions, one's method of approach, all have a significant bearing on the outcome of any enquiry and the claims regarding the nature of one's subject matter, whether it be in the sciences or theology. In this last respect, the other set texts are Michael Fuller's Atoms & Icons - A Discussion of the Relationships between Science and Theology and Keith Ward's two books, God, Chance and Necessity and Religion & Creation. (Full Reading List: Appendix 1)

The introductory parameters having been set up for the course, the students are then invited to indicate their own positions on the compatibility or otherwise of a science/theology relation, and these are then discussed with Dr. Yee, Dr. Harnish and Dr. Ludlow. Graphic representations of such views are a very quick way of gaining an overview of these, and for the varying issues to be classified, their implications pinpointed. Firsthand experience in tackling such issues is then provided by reference to the questions on the worksheet.

Worksheet circularized on previous week (I.1):

Ouestions for discussion:

- 1. In which specific ways does a science-oriented world raise serious questions for Christian Doctrine?
- 2. Is a non-partisan approach to theological enquiry possible?

Suggested reading:

- J. H. Brooke, Science & Religion, Introduction and Ch.1
- M. Fuller, Atoms and Icons, Chs. 1 & 2.
- K. Ward, God, Chance and Necessity, Chs. 1-3.

Week 2 Interpretation - What criteria shall we use?

Lecture: A brief review is given at the beginning of this and each seminar, so that the students can quickly appreciate the continuity and link of each week's reflection and learning, and begin to consolidate their thought on issues related to the science/theology relation.

The lecture on this occasion makes use of Graphic No.1, which represents in the first instance a "popularly held" view of the world, which is physicalist in form and with which theologians and scientists, who adhere to a critical realist position and argue for the compatibility of the sciences and religion, have wrestled. The task is then to discuss more fully how contemporary thinkers may seek to avoid "partisanship," as described by critical historian, J. H. Brooke. The possibility of an "alternative" form of approach, which begins from the position of the "knower" as the "knowing agent," as originally proposed by Michael Polanyi in Personal Knowledge is introduced. Reference is also made to Charles Conti's book, Metaphysical Personalism, in his analysis of how theistic metaphysics may be pursued, as attempted by the philosopher and theologian, Austin Farrer. The effectiveness of accounting for both physical and spiritual factors in human life by such means, cognizant of the demands of critical enquiry, is made clear. As a result, an "alternative" view of the world (Graphic 2), compatibilist and multi**disciplinary** in form, conducive to the demands of science, yet not excluding theology by definition, is offered. The main concern in this seminar is to introduce students to a more comprehensive epistemological view of the world that is open and critical, and possesses the potential to make critical judgements across the disciplines, conducive to the principles of enquiry employed in the sciences. These two forms of seeking a more adequate *compatibilist* and *inclusive* approach are noted as possible ways of tackling issues in the science/theology dilemmas. Criteria of judgements are discussed.

Worksheet (I.2):

Questions for discussion:

- 1. To what extent should theology take account of the findings of the sciences, such as biogenetics, physics, neuropsychology and medicine?
- 2. Is a doctrine of eternal salvation tenable in a science-oriented world?

Suggested reading:

- J. H. Brooke, Science and Religion, Chs. 2-4.
- C. Conti, Metaphysical Personalism, Introduction & Chs. 2-3.
- M. Fuller, *Atoms & Icons*, Chs. 3-4.
- K. Ward, Religion and Creation, Chs. 1-4.
- C. F. Davis, *The Evidential Force of Religious Experience*, Chs. 1-2.

Week 3 Are compromise and change inevitable?

Lecture: Having argued for the compatibility of theology and the sciences, the question is then raised as to whether theology needs, as a consequence, to compromise its subject matter to do so? In order to show that compromise is **not** necessary, a detailed exposition is undertaken of research into the principles of knowing in the sciences. (Refs. M. Polanyi, N. Hanson Patterns of Discovery, I. Hacking Representing and Intervening and P. Johnson-Laird Mental Models). The principles of scientific knowing are shown to be better described as "empirico-cognitive" than "empirical," since **both** the cognitive processes (creative and critical) as well as the senses are involved in the search to know. Referring to the thought of Austin Farrer's The Glass of Vision and A Science of God? supplemented with Keith Ward's thought on the Doctrine of Creation, reasons are given, in the light of "empirico-cognitive" principles of knowing, as to why the profound depths of theological concepts, described by Farrer as "the Images of Revelation," can be retained

Worksheet (I.3)

Ouestions for discussion:

- 1. To what extent is the "re-making of Christian doctrine" (M. Wiles) integral to serious theological enquiry?
- 2. In which ways, if any, is an exposition of the Doctrine of Creation affected by the acceptance of an evolutionary theory of the origin of the species?

Suggested reading:

J. H. Brooke, Science & Religion, Ch.8.

- S. Coakley, *Christ without Absolutes*, Introdn and Ch.1.
- C. Conti, Metaphysical Personalism, Ch.6.
- M. Fuller, Atoms & Icons, Chs. 5 & 7.
- A. Peacocke, *Theology for a Scientific Age*, Chs. 1, 3 and pp. 55ff.
- K. Ward, God, Chance and Necessity, Chs. 4 & 7.
- K. Ward, Religion and Creation, Chs. 5 & 6.

Week 4 The Principles of Knowing: Theology and the Sciences.

Lecture: It is thought most important at this stage to give a full exposition of the major differences between the "popular" **physicalist** view of the world (Graphic 1), which by definition excludes theology, and the "alternative" compatibilist and multi-disciplinary view of the world (Graphic 2) which is inclusive. In this way, students can quickly assimilate the significance of a "knowing self" and how one comes "to know, and to know that one knows." An exposition of what it means to say that the principles of knowing are better described as "empirico-cognitive," rather than simply as "empirical," since they involve the close interaction of mind and experience, enables students to appreciate how access to knowledge of the world is acquired, revised and refined. As these principles can be applied in the humanities as in the sciences, an indication is given of how acquisition of knowledge in each of these areas is established. In this seminar, a clear distinction is drawn between what is normally understood by the term "methodology," implying "methodological principles of scientific research," and "method" referring primarily to "method of approach." The methods of approach are very **different** in the physical sciences and religion because of their very different subject matters. For instance, the method of approach for establishing the structure of myoglobin by Sir John Kendrew was very different from that needed to establish the status of claims of the Resurrection. Though the methods of approach are necessarily different, the principles that enable critical judgements to be reached still need to be adhered to by each discipline. "Empirico-cognitive" principles are shown to be necessary if the highest possible level of objectivity is to be achieved across the disciplines, theology included. It is by these principles that fact and error can be exposed. Demonstrations are given. Instances, such as Chernobyl, the so-called "Hitler" Diaries and the Waco disaster are cited when violation of such principles occur. In the second teaching of the course, Dr. Arthur Peacocke took part in discussion with Dr. Yee, citing examples from his position as a physical chemist as to the way in which relations with theology could be indicated as compatible in the search to know, with consideration of the implication of such for a theology of The Resurrection.

Worksheet (I.4)

Questions for discussion:

- a) Describe your understanding of "gaining an insight" and/or "making a discovery" in the sciences. Is this comparable with "receiving by revelation" or "being inspired" in theology?
- b) How best can a theology of The Resurrection be approached in a scientific age?

Suggested reading:

- J. H. Brooke, Science & Religion, Postscript, pp.321-347.
- C. Franks Davis, *The Evidential Force of Religious Experience*, Chs.3 & 4.
- M. Fuller, Atoms & Icons, Ch.4.
- B. Mitchell, Faith and Criticism, Ch. 4.
- A. Peacocke, Paths from Science towards God, Ch.2
- M. M. Yee, "The Validity of Theology as an Academic Discipline," D.Phil. thesis, Oxford, 1987, Chs. 3 & 4.

Week 5 A Science of God? - Divine Mystery and Paradox.

Lecture: The need for a more adequate epistemology, as discussed by W. Harman in "The Scientific Exploration of Consciousness: Towards an Adequate Epistemology" in Journal of Consciousness Studies is raised. Once it is recognized that the principles of knowing are "empirico-cognitive," and the "alternative" frame of reference (Graphic 2) which is inclusive meets such a need, the possibility of Divine Mystery may then be considered. The nature of paradox is discussed, particularly in terms of a theory of interanimation in metaphor and models in both scientific and religious language (J. Martin Soskice). Language is able to convey both our finite and ostensibly transcendent apprehensions of the world. In the revised form of the course, Bishop Kallistos Ware, attended and discussed the function of the Icon in Orthodox Theology. Questions from both scientific enquiry and theology were raised for discussion, with a view to indicating just how language can encompass and express the rich aspects of experience, best referred to by the use of metaphorical, poetical and aesthetic terms in discourse. This function is as necessary to convey adequately concepts in the sciences as in religion.

Worksheet (I.5):

Questions for discussion:

1. What is "science?" What is "theology?" Are there ways in which the terms "mystery" and "paradox" referred to by theologians, can be shown to be applicable to the sciences also?

2. In appealing to "Divine Mystery" as integral to theology, do theologians (e.g. Karl Barth, Karl Rahner, or Austin Farrer) defend their stance adequately?

Suggested reading:

- S. Coakley, *Christ without Absolutes*, Ch. 4 and Conclusions, pp.188-197.
- C. F. Davis, *The Evidential Force of Religious Experience*, Ch. 5 & 6.
- M. Fuller, Atoms & Icons, Chs. 5 & 6.
- J. Polkinghorne, Reason and Reality, SPCK, 1991, Chs. 4 & 6.
- J. Martin Soskice, Metaphor and Religious Language, pp.44-52, 103-116.
- K. Ward, God, Chance and Necessity, Ch. 5.
- K. Ward, Religion and Creation, Chs. 5-6, 9 & 10.

Week 6 Residual theological problems and their possible resolution.

Lecture: Though a compatibilist relation between science and theology can be sustained, there are still "residual" problems confronting theologians which need further enquiry. The findings of scientific enquiry suggest on the one hand that many of the claims of theology may well require serious re-consideration, whilst resisting "empiricist" or "physicalist" assumptions which denude human life of its richness on the other. The acknowledgement of the applicability of an "empirico-cognitive" principles approach to theology, however, offers the additional facility to theologians to probe residual problems further, identify where the actual problems are and determine what kind of adjustments are required or possible. In this lecture, Dr. Philip Kennedy, O.P., modern theologian, presented a paper on the areas in which some residual issues remain. Commentary and discussion followed, prior to class involvement.

Worksheet (I.6):

Questions for discussion:

- 1. In a science-oriented world, are claims about divine activity defensible? Give reasons.
- 2. Is "paradox" a legitimate concept for citing in support of arguments for the compatibility of the Divine and Human Nature of Christ? Are major radical revisions necessary for Christian Doctrine?

Suggested reading:

A. M. Farrer, *The Glass of Vision*, Chs. 7 & 8.

- A. M. Farrer, Faith and Speculation, 1967, Chs. 2 & 9.
- A. M. Farrer, "A Starting Point for Philosophical Examination of Theological Belief," in B. Mitchell (ed.), <u>Faith and Logic</u>.
- M. Fuller, *Atoms & Icons*, Ch.7.
- J. Polkinghorne, Reason and Reality, Ch. 9.
- K. Ward, Religion and Creation, Chs. 7-11.

Week 7 M.M. Yee's 3-D Graphics - A promising way forward?

Lecture: A comparison of the limitations of a **physicalist** approach to the world (Graphic 1) and the advantages of the unbounded, open, exploratory and revisable approach of the **compatibilist and multi-disciplinary** approach (Graphic 2) is discussed in the light of the science/theology relation. A detailed account of how "empirico-cognitive" principles can expose error in the sciences as well as in religious claims is given. The comprehensiveness of Graphic 2 as a viable "alternative" model for approaching further exchange is highlighted. Above all, the importance of each discipline, applying critical principles, can enable not only integrity within a discipline's search but also across disciplines, as consideration is given as to how the findings of other researches impinge on any one area of study. In this way, the wholeness of the creation may be explored as convergence from different areas of study is pursued. The inclusiveness of such an approach would be invaluable. The involvement in this seminar of Professor Rom Harre, history and philosophy of science, provided important insights. He discussed how analogies drawn from understandings such as "gravity" and other scientific concepts, and considered in relation to claims made by other disciplines, not least theology, enable appreciation of the breadth of reality. These issues are discussed in his book "Varieties of Realism."

Worksheet (I.7):

Questions for discussion:

- 1. Is it acceptable to claim that scientific knowledge and religious knowledge are **two different aspects** of **one** world? Or is it better to describe theology as a particular way of interpreting the world?
- 2. Is some form of process theology now necessary, given our scientific knowledge of the world, or are the more traditional claims of Christian Doctrine still tenable?

Suggested reading:

M. Midgley, "One World - But a Big One" in <u>Journal of Consciousness Studies</u>, Vol.3, No.5/6, 1996, special double issue.

K. Ward, *Religion and Creation*, Ch. 12.

M. M. Yee, "The Validity of Theology as an Academic Discipline," D.Phil. 1987, Oxford, Chs.7-9.

Week 8 Revelation OR Reason, or Revelation AND Reason?

Lecture: A comparison of different worldviews is given, covering the Aristotelian premodern science position, that, following the rise of modern science, the hardening of worldviews under empiricism and physicalism, and "alternatives" which enable valuable exchange between the sciences and theology. The restrictions of a metaphysic which is either rationalist or empiricist is discussed. Acknowledging the interactive involvement of mind and experience in any search to know, and the important recognition of constraints and checks to observe, it is maintained that both the rational and experimental factors of research need to be taken into account. A history and philosophy inclusive of both the sciences and religion is required epistemologically to enable such enquiry to proceed. Mary Midgley's argument for "One World but a Big One" in Journal of Consciousness Studies, suggests an effective route. Graphic 2 also offers a comparable way of mapping a route for ongoing productive exchange between science and religion in which the insights of both may be critically evaluated to the benefit of creation and human survival. The ultimate value of the latter is that it provides a most comprehensive metaphysic for underpinning any claims to Revelation, which is a central factor in all religions. In addition, "empirico-cognitive" principles can provide effective means for making judgements that are independent where conflicts arise. Its strength is that it provides an adequate multi-disciplinary framework in which **both** science and theology may converse.

Worksheet (I.8):

Ouestions for discussion:

- 1. In a science-oriented world, are theological claims that religious knowledge comes by "Revelation" a reasonable argument?
- 2. How can Christian Doctrine be justified as coming "by Revelation?" Discuss this argument in the light of the Doctrine of the Trinity.

- K. Ward, *Religion and Creation*, Chs. 13.
- V. Lossky, *The Mystical Theology of the Eastern Church*, Ch.3.
- J. Bowker, *The Sense of God*, (2nd edition) Chs. 8 & 9.

HILARY TERM: CURRENT ISSUES IN THEOLOGY AND THE SCIENCES II: Methodology and Epistemology.

Week 1 Major methodological and epistemological issues confronting contemporary theology.

Lecture: The major concern of Part II is to focus on the nature of the different compatibilist approaches to the science/theology relation, with a view to evaluating the effectiveness of each in achieving and advancing exchange between science and religion, and pinpointing where the ongoing dilemmas still remain. Considerations of the struggles that have emerged for the social sciences and humanities following the rise of modern science and the introduction of experimentation and measurement are noted. The need for an adequate epistemology and "one world but a big one" are taken into account. By contrast, the essential claims of Christian Theology, e.g. Creation (human life) or The Resurrection (the relation of body, mind and spirit), which often are at variance with our scientific understandings of the world, cannot be ignored. The basic issue is related to the possible acceptance of an immanent, transcendent (or "transfinite") worldview. Whether such a view is tenable or, if not, whether traditional theological claims need radical revision are brought to the fore in this series.

Worksheet (II.1):

Questions for discussion:

- 1. Which are the major problems for theology in a science-oriented world
 - a. methodologically?
 - b. epistemologically?
- 2. Is there a positive route for approaching such problems currently if one is
 - a. a scientist?
 - b. a theologian?

Suggested reading:

- M. Ruse (Ed.) But is it science? The philosophical question in the creation/evolution controversy, 1996, Parts I, II and IV.
- C. Southgate (Ed.), God, Humanity and the Cosmos, Chs. 6 & 12.

Week 2 Changes in worldview and their effects on theology.

Lecture: A comparison of the compatibilist argument in Graphic 1 and that of Graphic 2 is discussed. There are those who proceed by struggling within the worldview of Graphic 1 against the "popular" physicalist view, arguing by analogy for a "critical realist" view of the world which is more inclusive. There are those who opt for the "alternative" model offered by Graphic 2, which is distinctive in one particular feature: it does not need to be in any way entangled with the assumptions of a physicalist view of the world in which the criteria of reality are limited, gauged in terms of the properties and characteristics of the material world. On the contrary, in the "alternative" view, it is argued that the properties and characteristics of spiritual realities are distinctively different from social/psychological factors as also from the subject matter of the physical sciences. The worldview of Graphic 2 portrays these factors as metaphysically variant, which become obvious in closer analyses of the subject matters of both Graphic 1 and 2.

The different subject matters, researched by very different methods of approach, are aspects of the whole. A "knowing agent" is aware of all such aspects, and it is the integration of these by which wholeness of life and creation can be appreciated.

Example: The works of Michael Polanyi delineate a *personal metaphysic*, which accounts for an understanding of the world from the position of an agent who is the "knower" and the integral function of the knowledge acquired. This is presented in an exposition by Miss Joan Crewdson, <u>Christian Doctrine in the Light of Michael Polanyi's Theology of Personal Knowledge</u>, Ch. 5.

Worksheet (II.2):

Ouestions for discussion:

- 1. What are the main differences in worldview of creationist arguments which claim to be scientific and evolutionary ones?
- 2. In which ways is Michael Polanyi's "personalist" worldview helpful
 - a. for scientists to communicate with theologians?
 - b. for theologians to communicate with scientists?

- J. Crewdson, *Christian Doctrine in the Light of Michael Polanyi's Theology of Personal Knowledge*, Ch. 5.
- M. Polanyi, *Personal Knowledge*, pp.1-17.
- M. Polanyi, *The Tacit Dimension*, pp. 1-25.

M. Ruse (Ed.) But is it science? - The philosophical question in the creation/evolution controversy, Part IV.

Week 3 An evaluation of past theological methods: their strengths and their difficulties in relation to the sciences.

Lecture: The concern in this lecture is to consider a compatibilist approach to the science/theology relation which argues analogically from the physical world to a spiritual one, with some independent appeal to revelation to make the case for theology, and that which proposes that the imagination functions effectively for apprehension of both physical and spiritual understandings of our world. The issue of adequacy of models for exchange between the sciences and theology is considered. A comparison of approaches adopted by rationalists, non-cognitivists, radical revisionists and process theologians is undertaken. Evaluations are made of such approaches as regards their capability of meeting both the demands of scientific enquiry and encompassing the essentials of Christian theology. The question of whether such theologies can be taken seriously by scientists, yet maintain an integrity of their own subject matter, is raised.

Example: The work of Dr. Caroline Franks Davis, philosopher of religion, is cited. She gives a clear exposition in her book <u>The Evidential Force of Religious Experience</u> of the principles required for establishing a case in both the sciences and religion, and points out how religious claims are capable of meeting the rigours demanded by the sciences. Issues arising are discussed by Dr. Harnish, from a physicist's viewpoint.

Worksheet (II.3):

Questions for discussion:

- 1. Is Sir Anthony Kenny's argument in <u>Faith and Reason</u>, viz. that the principles of empirical enquiry need to be applied to theology as to any other discipline, but in the case of theology is probably impossible to achieve, entirely acceptable? Give reasons.
- 2. Is a theology of nature (J. Polkinghorne) likely to be more effective than natural theology (M. Wiles)? Or is it better to attempt a radical method, such as Don Cupitt, resort to a non-cognitive approach such as that of D.Z. Phillips, or look more to process theology as does David Pailin, given a largely scientific world?

- D. Cupitt, Taking Leave of God, pp x and xii; Sea of Faith, pp.269-273.
- A. Kenny, Faith and Reason, Columbia Uni Press, 1983, pp.5, 24, 39-40, 55ff., 61 & 64.
- B. Lonergan, *Insight*, Chs.12.
- D. Pailin, *Probing the Foundations*, Ch. 5.

K. Ward, Religion and Creation, Ch. 5.

Week 4 <u>A comparison of Karl Barth's methodological approach</u> with those <u>of Moltmann and Lossky</u>.

Lecture: A critique is given of the main theological insight of Barth, Moltmann and Lossky and their method of approach. The rich insights of these theologies are acknowledged as also the lacks in their methods to provide adequate metaphysical underpinning for their theologies. As a result, they are open to criticism from a world of advancing thought in the natural world of science. Once pinpointed, the possibility of the principles of knowing being met by **both** the sciences and theology is reiterated.

Example: Dr. Olivera Petrovich, experimental psychologist, discusses the possibility of exchange with theologians from a developmental and cognitive psychologist's viewpoint. By indicating current research findings in these areas, it is possible for students to see how empirical research can provide valuable information, either confirming or dispelling reflective insight or claims which may have previously been assumed in theology. For instance, children's ideas of God in developmental psychology can provide valuable understanding of concepts which are ultimately represented, albeit in a highly developed form, in the richness of mystical theology.

Worksheet (II.4):

Questions for discussion:

- 1. Which is the more effective route via which to move if theologians are to communicate with scientists
 - a. an approach via icons and images?
 - b. an approach via propositions?
 - c. an appeal to revelation *par excellence*?
 - d. an approach via a combination of all or some of these?
 - e. none of the above?
- 2. Which of the above routes are experimental psychologists most likely to find acceptable if conversing with theologians?

- K. Barth, *Church Dogmatics*, 1936, Vol. I, Part 1.
- C. Franks Davis, *The Evidential Force of Religious Experience*, Ch.7-9.

- V. Lossky, *Orthodox Theology*, 1978, Chs.1, 2 & Postscript.
- J. Moltmann, The Way of Jesus Christ, 1990, Ch.6.
- F. Watts, "You're nothing more than a pack of neurons!" <u>Journal of Consciousness</u> <u>Studies</u>, Vol.1, No.2, 1994.
- F. Watts, "Are science and religion in conflict?" The Psychologist, Jan., 1996.

Week 5 Karl Rahner's theological approach in contrast with Austin Farrer's.

Lecture: The primary concern in this lecture is to consider the possibility of maintaining a transcendent view of the world in a scientific age. Discussion of whether the world is global but "big" as Mary Midgley has argued, or whether it may be claimed that it is "bigger and better," suggesting that there is much still unknown, and that the world is not only finite but also infinite, is taken. The latter proposal relates to those who wish to argue for transcendence, as for example Austin Farrer. Karl Rahner approached the problem of Divine Mystery via an anthropological and theological synthesis. An evaluation of his approach, often referred to as "bottom up," is undertaken with the question of whether his approach is equally satisfactory to theologians as to scientists.

Example: Dr. Morwenna Ludlow, Junior research Fellow in philosophy and theology, presents the thoughts and implications of Rahner on "Eschatology," viz. the end things. The account is discussed in the light of its possible acceptance by physical scientists as credible.

Worksheet (II.5):

Questions for discussion:

- 1. What are the major emphases seen as essential to the nature of theology as expressed in:
 - a. the thought of Karl Rahner
 - b. the thought of Austin Farrer

and are these tenable within a science-oriented world?

2. Is the openness of a world-view that does not by definition exclude the possibility of an understanding of "transcendence" acceptable to the worldview presumed in contemporary scientific enquiry?

Suggested reading:

F.A. Olafson, *What is a Human Being?*, 1995, Introduction and Ch. 1.

Karl Rahner, Theological Investigations, Vol.1 & Vol.6

Week 6 Can Pannenberg's theology offer a worthwhile alternative? The role of history in interpretation.

Lecture: Pannenberg's adherence to a critical historical approach and his particular reference and use of the concept of "retroaction" is compared with the value of critical principles and the physicist's, N. Hanson's argument for "retroduction," i.e. extrapolating from the evidences. The importance of both of these in theologising is acknowledged. Pannenberg's strong emphasis on the end of history as the confirmation of spiritual realities is questioned as so major a premiss in theological reflection. As in the sciences, it is argued that critical reflection can provide considerable positive evidence for theological claims.

Example: A presentation at the second run of the course was delivered by Dr. Timothy Bradshaw, systematic theologian, on Pannenberg's historical/theological understanding of "retroaction," as it relates to his treatment of the concepts of time and eternity. As such, he later mapped his own representation of this viewpoint, which will be used in ongoing seminars. Dr. Harnish, physicist, then discussed the concepts of time and eternity, indicating from the sciences that such concepts are not in contradiction of one another.

Worksheet (II.6):

Questions for discussion:

- 1. Is Pannenberg's historical approach and his understanding of "retroaction" helpful in communicating theological thought in a science-oriented world? How does it compare with an approach such as Ed Sanders' in New Testament Studies or J. H. Brooke's in "Science and Religion," given the current age of science?
- 2. Is the physicist's, N. Hanson's, concept of "retroduction," as used in the sciences, a method of approach which theologians could also agree is possible to use effectively in theological enquiry?

Suggested reading:

- P. Carnley, The Structure of Resurrection Belief, Clarendon, 1987.
- N. R. Hanson, *Patterns of Discovery*, pp.1-19, 87-90, 118-124.
- W. Pannenberg, *Jesus-God and Man, (2nd edn.)*, Chs. 1, 3, 8 & 9. ("Retroaction" Chs. 8/9)
- E. Sanders, Jesus and Judaism, Ch.11.

Week 7 Is Process Theology the only alternative in a world of science?

Lecture: The main concern in this lecture is to consider the extent to which theories of evolution and other convincing theories in the sciences need to be accommodated into theological expositions of the Doctrine of Creation or of the Resurrection. In other words, findings in the neuro-sciences, in biogenetics or other advanced sciences suggest a very different understanding of the nature of human life and of the environment. Whilst some theologians propose a Theology of Nature as compared with Natural Theology, can this deal adequately with the increasing reformulation which appears to be required by advances in scientific enquiry? Ian Barbour has acknowledged that whilst process theology has shown certain reconciliation with scientific advance, it nevertheless cannot fully escape the dilemmas confronting it in a world of science (ref. Religion and Science -Historical and Contemporary Issues, 1998.) It is proposed that Dr. Yee's "alternative" Graphic 2 model, with its argument for the principles of knowing in the sciences, humanities and theology and the distinctively different character of physical, mental and spiritual factors, may well offer a promising path ahead. Also, it is maintained that whilst taking account of the findings of science, it is necessary for theology ultimately to make its judgements in the light of the identifiable character of spiritual things as compared with relying on an analogy between physical and religious factors.

Example: On this occasion, Dr. Pauline Rudd, Senior Researcher in the Glycobiology Unit, Biochemistry, delivered a short lecture on an aspect of research into arthritis. The implications of such findings for providing important underpinning of an understanding of human nature were taken into account. Also, the extent to which such information is foundational to any theological reflection needs to be considered seriously. It is argued that theology has an intrinsic character that needs to be respected. The "apophatic" method of theologising is one approach which can take account of findings from other disciplines and yet maintain a non-violation of that which is essentially characteristic of theology. Above all, caution was given to the danger of using scientific advances, such as "emergence" as the basic model for theological reflection. To do so would be to subscribe to scientific findings as the basis of theology, whereas a philosophical theologian such as A. M. Farrer maintained that the "empirical" base of religious experience could not be denied.

Worksheet (II.7):

Questions for discussion:

- 1. Is David Pailin's argument fully acceptable, viz. that the ultimate authority for deciding matters of belief is reason, **not** scripture or tradition, and that, in a scientific world, process theology, which is rationally credible, is therefore a favourable route forward?
- 2. Can it be said that in process theology, it is the scientists who have begun to dictate the criteria of "truth" for theology? If so, is there a rationally credible alternative which would permit theology to state its own criteria of truth?

Ian Barbour, Religion and Science, 1998, last 2 chapters.

Celia Deane-Drummond, *Theology and Biotechnology - Implications for a New Science*, G. Chapman, 1997, Chs. 1 & 6.

A. Farrer, The Freedom of the Will, 1958, Chs.1-4.

Nancey Murphy, *Theology in the Age of Scientific Reasoning*, Cornell, 1990, Ch. 6.

D. Pailin, *Probing the Foundations*, Chs. 5 & 8.

Week 8 Keith Ward's exposition of the Doctrine of the Trinity: to be or not to be?

Lecture: A final drawing together of the factors seen as most important to satisfy both the demands of rigorous scientific enquiry and an understanding of immanence and transcendence in theological thought is undertaken. Given earlier arguments proposed for the potential of the "alternative" Graphic 2 as an adequate epistemological base in which the mapping of knowledge in either the sciences or theology can be adequately met without contradiction, the remaining question is whether the richness of theological view expressed in Mystical Theology and expounded in a reflective theology, such as that of A. M. Farrer, can be sustained, or whether a more modified theology, typical of the more radical forms would be required. It is proposed that the former, which it is possible to expound amidst knowledge of a science-oriented world, e.g. in physics, chemistry, biogenetics and the neuro-sciences, is tenable. Since a current example, more developed than the thought of Farrer, would be a good test, an argument for the Trinity, referred to as "a new systematic theology" by Keith Ward, Regius Professor of Divinity, Oxford, is given as the example in this seminar.

Example: Prof. Ward presents his understanding of the Trinity in relation to thinkers such as Zizioulas and Pannenberg on the one hand and Wiles and Lampe on the other. In his exposition he delineates his view of how a Doctrine of the Trinity can be maintained in the context of contemporary thought and knowledge without loss of intrinsic substance. It is argued that it is comparable to demands for the "unity" of the doctrine of the Trinity by Orthodox theologies, eastern and western, yet conscious of the need to articulate a metaphysic which can substantially underpin such claims. Compared also with current interest in the "unity" of consciousness studies, the convergence of research from different disciplines and their advantageous interchange as research progresses in each area, becomes clear.

Worksheet (II.8):

Ouestions for discussion:

1. Does the Doctrine of the Trinity, as expounded in the thought of Keith Ward's new systematic theology, co-ordinate with the demands of scientific enquiry as well as encompass the richness of Mystical Theology?

2. Are "unity" of the physical, psychological and spiritual aspects tenable in a scientific worldview?

Suggested reading:

- I. Barbour, Religion and Science, 1998.
- J. Bowker, *The Sense of God Sociological, Anthropological and Psychological Approaches to the Origin of the Sense of God*, One World, 1995 (2nd Edition), Chs. 7 & 8.
- R. Cotterill, "On the Unity of Conscious Experience" in <u>Journal of Consciousness</u> <u>Studies</u>, Vol.2, No. 4, 1995, pp.290-312.
- C. Deane-Drummond, Creation through Wisdom Theology and the New Biology, Ch.1
- R. Dawkins, Climbing Mount Improbable, Viking, 1996, Chs. 1 & 10.
- A. M. Farrer, *The Glass of Vision*, Ch. 3.
- -----, A Science of God?, 1966, Chs. 1, 6 & 7.
- V. Lossky, *The Mystical Theology of the Eastern Church*, Chs. 3 & 10.

Nancey Murphy, Beyond Liberalism and Fundamentalism, 1996 Chs. 4 & 6.

- R. Otto, *The Idea of the Holy*, 1958 Chs. 1-5.
- K. Ward, Religion and Revelation, 1994, Part V.
- -----, Revelation and Creation, Chs. 12 & 13.

Final Summary: Dr. Yee then draws together the threads of this discussion, referring to current research in the sciences and their implication for ongoing understandings of human consciousness and personhood. Attention is given to the **convergence** of the findings of different studies as indications of the nature of creation. It is suggested that continuing study of the dynamic of these relations, their possible interaction and interrelationship could well prove enlightening of what neuro-science presently refers to as "the central monitor" and the human sciences refer to as "residuals." Working within such a model, it would be possible for theologians and scientists to confer fruitfully on ongoing research.

MMY, 3/4/2002.