CHAPTER ONE

Revelation and Human Self-Understanding

It is evident that all the sciences have a relation, greater or less, to human nature; and that however wide any of them may seem to run from it, they still return back by one passage or another. Even *Mathematics, Natural Philosophy* and *Natural Religion* are in some measure dependent on the science of MAN; since they lie under the cognisance of men, and are judged by their powers and faculties. It is impossible to tell what changes and improvements we might make in these sciences were we thoroughly acquainted with the extent and force of human understanding, and could explain the nature of the ideas we employ, and of the operations we perform in our reasonings.

David Hume[1]

The problem of indicating the character of the human species is quite insoluble.

Immanuel Kant[2]

1. Theory and Observation in Science

As a branch of practical theology, Christian education must be securely based in theology. As a branch of education, it must be securely based in educational theory. Until now, discussion of theoretical foundations has centred largely around the relation of theology to education on the one hand and the relation between social science and education on the other, with the main question at issue, which discipline has the most valid claim to dictate the norms for education in a Christian context. It is intended, in what follows, to leave the practice of education out of account for the time being, and to enquire directly into the relation between theology and social science.[3]

The first step is to examine the relationship between two related fields, philosophy and the natural sciences. Although in the course of the argument it will become necessary to modify this initial position, theology can be defined chiefly as a conceptual subject, allied to philosophy, while the social sciences are chiefly empirical, and in that respect comparable to natural science. No science, however, can be independent of conceptual, or philosophical, considerations. The progress of a given science has two complementary aspects. These are:

a) observation,

b) the development of concepts and categories by which to unify and comprehend observations.

It is the error of positivism to assume that the scientist can begin with "raw" observation and move on at a relatively late stage to the interpretation of his or her

observations.[4] Observation, the search for new facts, requires a fairly clear idea of the sort of thing one is looking for, and this requires a framework of concepts. Like the infant, the trainee scientist is a novice in a new world. He or she must learn to "see" the objects of that new world. The doctor examining an X-ray photograph, the biologist looking into a microscope, the astronomer through a telescope, are using not only their eyes and their technological aids, but also the knowledge they have acquired as a result of their scientific training to interpret what they see. It is the framework of interpretation which the scientist brings to the task of observation which determines what is found significant and what is ignored. It is that framework also which helps to formulate questions and suggest fruitful directions for research.[5] Stephen Toulmin gives the following examples of the importance of conceptual revision for the advance of the physical sciences:

> The arguments by which Galileo, Descartes and Newton launched the science we know as 'mechanics' were certainly as much conceptual - and even philosophical - as they were empirical...Nor could the basic conceptions of modern dynamics - *matter, force, momentum* and the rest - ever have been established by empirical investigations alone; in actual fact they were quite as much the result of careful conceptual analyses.

Einstein's initial work on the theory of relativity rested, likewise, at least as much on a refined reanalysis of our concepts of *space, time* and *simultaneity* as it did on

empirical observations...As Einstein emphasised himself, he was led to his ideas about relativity, not least by philosophical considerations derived from Hume and Mach.[6]

All data is, in the words of N.R.Hanson, "theory-laden".[7] There are no neutral, independently observable facts waiting for a theory to explain them. Empirical work takes place within a framework of concepts. It is within a given theoretical framework that discoveries are made and knowledge of the subject-matter of the particular science gradually expanded. It is the theory, moreover, which suggests which of the possible research problems is likely to be most fruitful, the theory which influences the design of the research and the theory which tends to control the way the results are interpreted.[8] There is no neutral standpoint from which all the facts appear, "value-free", no privileged level of observation "uncontaminated" by a given theoretical framework. To accept a given fact as significant involves the acceptance of a whole framework within which its significance is explained and by which it is related to all the other relevant facts. But the theoretical or conceptual framework is not to be seen as a strait-jacket, incapable of modification. It is possible for empirical observation to throw up "anomalies", findings which the theory is incapable of explaining. If enough of these anomalies accumulate, the adequacy of the theory may itself be called in question, and the search for a new theory, which can explain not only the accepted facts but also the anomalous observations, may begin.

The distinction implicit here between the gradual accretion of verified observations within a given theoretical framework and the rejection of a theory and its replacement by another is similar to that made by Thomas Kuhn between "normal" and

"revolutionary" science. The main problem with Kuhn's theory was that his distinction was introduced as an historical one, and "revolutionary" science reserved for a few outstanding individuals, an example of the "great man" school of historical writing. Subsequent argument has established that the distinction between "normal" and "revolutionary" science is not primarily an historical but a philosophical one, with practical and historical implications. Minor conceptual revision is taking place all the time. Scientific revolutions which capture the historical headlines are merely outstanding examples of what is, in fact, a regular part of the scientific enterprise. Familiarity with and acceptance of a given theoretical framework is, moreover, the precondition for conceptual revision.[9]

Kuhn's theory helps to resolve the apparent paradox between the theory-laden nature of scientific observation and the impressive unity of the scientific community, not only its unity of purpose, but the unity of its interpretation. Science is not a field in which "anything goes", in which one person's interpretation is as good as any others. Scientific data are public and scientific observations replicable and quantifiable. One scientist can request the results of another's experiments for independent analysis. One scientist can build upon another's results. Science progresses by taking as certain the results of previous series of experiments, by establishing reliably tested laws and axioms. The unity of the scientific community is achieved by the acceptance by its members of a shared conceptual framework. It is not the case that the dependence of fact upon theory means that one person's theory is as good as any other. Science is the enterprise of a community, which defines itself by the acceptance of a "paradigm", or common theoretical framework.

It is the shared paradigm which specifies the precise meaning of all the terms which fall within it. For scientists who share the paradigm, every term and every observation has a definable, public, quantifiable meaning. When Einstein put forward his theory of relativity, part of what he was proposing was that many of the most important terms in physics, such as *force, mass* and *velocity*, should be understood in a different way. For this theory to be accepted, it had to cease to be simply Einstein's theory and become the generally accepted "language" of physicists. Acceptance of a scientific paradigm is a more thoroughgoing and methodologically demanding example of what we all do all the time in order to communicate with one another. No one can be a Humpty Dumpty, for whom words mean whatever he wants them to mean. We all share a common framework of agreement about meaning, a framework within which we understand one another.[10]

Agreement within a scientific paradigm is agreement about what can be taken for granted. According to Sir Karl Popper, the investigation of a scientific theory always terminates in a collective decision to accept some "basic statement" as a valid description of reality. These basic statements, which depend on scientific consensus, are like "piles driven into a swamp". They do not reach the solid bottom of indisputable fact, but are sufficient for the time being to support the structure.[11] The "paradigm", or shared conceptual framework, must be taken for granted so that the work of empirical investigation can proceed.

But if the work of empirical observation is dependent on theoretical frameworks, the work of conceptual analysis cannot proceed independently of empirical observations.

Science does not proceed by deductions from first principles. There is no axiom which can be taken with confidence as the "rock bottom", from which deduction may begin. Rather, what can be proposed is a "model", a best possible approximation, to be understood as closely analogous to reality. The task of the scientist is to discover, by experiment and analysis, how far the particular model is applicable, and what are its limitations.

Such a model or fundamental analogy is termed by Imre Lakatos a "research programme".[12] A "research programme" is much broader than any one particular project. The example Lakatos gives is Newton's gravitational theory. There is a similarity in scope to Kuhnian "paradigms", but Lakatos concentrates on the logical features of research programmes, rather than the effects of the social context in which they arise. A research programme consists of a set of methodological rules for studying a given aspect of reality. It involves a "negative heuristic" or hard core of laws or axioms which must be regarded for the sake of the programme as being irrefutable, in the case of gravitational theory, the three laws of dynamics and the law of gravity itself. It also involves a "positive heuristic", a set of standard methods for solving problems and eliminating anomalies. The research programme is a "way of seeing", which suggests new avenues of research, new problems requiring solution, and generates a series of progressively more adequate subsidiary models. As these avenues are followed up, however, the inherent limitations of the programme begin to become apparent, anomalies which cannot be avoided arise, and the programme gradually runs out of steam, to be replaced by a new and more powerful analogy.[13]

We are now in a position to attempt a preliminary conclusion about the relationship between science and philosophy, as a first step in the attempt to gain an understanding of social science and theology. Science and philosophy are to be understood as interdependent. Science is primarily the work of empirical investigation; it is what takes place *within* a given paradigm or conceptual framework. Philosophy is primarily the work of conceptual analysis. It is what takes place when the theoretical framework is in the process of *revision*. Science and philosophy are not two independent spheres. Their work is related. The scientist works within a conceptual framework, the analysis of which for coherence and logical implication is a philosophical task. On the other hand, logical systems and conceptual frameworks, which are the subject of philosophy, cannot be isolated from the world of empirical experience. So long as philosophy is an attempt to describe the conditions which govern our understanding of the world we live in, philosophers must make statements capable of empirical investigation and possible refutation. Science and philosophy are not only complementary but inter-related.[14]

2. Theology and Social Science

To turn from the analysis of the natural sciences to that of the social sciences is to introduce additional levels of complication. In the first place, the social scientist is attempting to explain the behaviour not of the natural world but of people. Unlike the phenomena of the natural world, from electrons right through to animals, people are not simply the passive objects of observation. People can answer back!

There are some extremely influential schools of social science in which people's own explanations for their behaviour are treated as unimportant. A truly scientific explanation, it is held, requires a detached point of view. In behaviourism, for example, it is axiomatic that any statement about the mind, one which refers to such activities as "thinking", "expecting", "desiring" or "hoping", must be treated as unscientific, since they are incapable of observation. All such statements are to be "translated" into a neutral, "objective" observation-language.[15]

Behaviourism and other similar approaches stand in a well-developed tradition, based on the inductivist or positivist ideal of science.[16] One of the earliest, greatest and most influential attempts to explain the phenomena of human behaviour in terms reducible to scientific generalisations was that of Thomas Hobbes. The basis of Hobbes' philosophy was "materialism", the doctrine that all the operations of the mind can be understood in terms of bodily motions. All thought, he believed, originated in sensation, which is the result of the operations of external objects. Sensation gives rise to imagination, imagination to passion, and passion to "voluntary motion". Human action, therefore, has its origins in physical causation. The study of human action involves the

same principles as those applicable to the study of natural phenomena. In fact, Hobbes believed, all human reason could be explained in terms of the principles of geometry.[17]

Hobbes is the intellectual ancestor of David Hume. In the *Enquiry concerning Human Understanding*, Hume declared his intention of discovering the "secret springs and principles by which the human mind is actuated."[18] His method was to attempt to examine the mechanisms of human intelligence from the point of view of a detached observer, a method which involves the implicit assumption that thought and action can be understood, in the same way as any natural phenomenon, as the effects of some external cause.[19] The ideal of the "unity of science", implicit in Hume, was summed up a century later in John Stuart Mill's *System of Logic*, in which he expressed his confidence in the applicability of the scientific method to the study of man.[20] The relative intractability of social phenomena as the object of this method was due not to any difference in kind but solely to the degree of difficulty involved.

The positivist approach to social science depends on the assumption that it is possible to discover a level of observations and a language with which to describe such observations which is "neutral" or "value-free". Such a language describes the facts and nothing but the facts, and theory arises simply as a summary statement of those facts without any additional content by way of explanation. Even for the natural sciences, however, this view is extremely problematic. In the social sciences, the fact that the object of study is the human subject makes it entirely untenable. As Kant observed,

> The fact that man can have the idea "I" raises him infinitely above all the other beings living on earth. By this he is a *person;* and by virtue of

> his unity of consciousness through all the changes he may undergo, he is one and the same person - that is a being altogether different in rank or dignity from *things*, such as irrational animals, which we can dispose of as we please.[21]

In this statement, Kant refers to several of the factors involved in the common-sense conception of the difference between human beings and other objects, including continuity of identity and the idea of "dignity". He also expresses a characteristic view of the relation between humanity and the environment, which he takes to be at man's disposal. But the most important factor mentioned here is the self-consciousness characteristic of human beings. Because of human self-consciousness, it is impossible for the student of mankind to ignore the *agent's point of view*. This idea has two important aspects:

1. It is a point of view unique to the individual subject. The environment each person inhabits is not simply physical or geographical, but psychological, consisting of his own interpretation of the objects and people with whom he comes into contact, based upon his own unique self-consciousness.[22]

2. The psychological environment is the *creation* of an *agent*. It is not the result of impersonal causal factors. Perception and thought are to be construed as activities.[23]

Even in the study of natural phenomena, interpretation is an indispensable part of theory construction. In the social sciences, in addition, persons' everyday explanations

for what they do cannot be ignored. The explanation of human behaviour is a hermeneutical exercise. It consists not simply of the attempt to test one given framework of explanation, that of the scientist, against observed events, but involves interaction between the scientists' explanation and the various common-sense, everyday explanations of the people under observation.[24]

Nor do the complications end here. People's explanations and understandings of their own behaviour typically arise in a given cultural context. They depend on shared frameworks of understanding, which may be implicit in the institutions of a given society. What people actually say and believe is only part of the story. Explicit beliefs rest on a deeper level, the implicit intersubjective agreement, without which society itself could not exist. The social scientist cannot ignore this aspect of social life. As Alfred Schutz remarks of the empiricist approach,

> Intersubjectivity, interaction, intercommunication and language are simply presupposed as the unclarified foundation of these theories. They assume, as it were, that the social scientist has already solved his fundamental problem before scientific enquiry starts.[25]

The proper method of the social scientist is described, in the term coined by Dilthey, as *verstehen*.[26] Dilthey's term was taken up by Max Weber, who, in opposition to Durkheim, insisted that "behaviour" must be defined as meaningful action. The agent's own interpretation of his action is not merely its subjective accompaniment, but an inseparable element in that action, and essential to its correct understanding.[27] In everyday life, *verstehen* is that experiential, common-sense knowledge, capable of

penetrating the subjectivity of another and interpreting the meaning for the other of her actions. As such, it poses a range of philosophical problems, related to the possibility of the knowledge of the mind of another and the nature of agency.[28] But it is, in addition, the proper method of the social scientist. The social scientist is not simply an external observer. She is a member of society, whose own basic assumptions are in dialogue with those of the people under observation. In the natural sciences, the theoretical framework can be taken for granted for the purposes of empirical investigation, but in the social sciences certain implicit understandings of the phenomena in question, those of the people who are the subject of the investigation, are internal to the investigation and cannot be ignored without a distortion of the nature of the object.[29] In the method of *verstehen,* empirical investigation and conceptual analysis are combined. If she is to be true to her task, the social scientist is required to do both science and philosophy at the same time, a combination which lies at the heart of a genuine hermeneutical method.[30]

At what point and in what way does the theoretical framework of the social scientist interact with the implicit assumptions of the agent or the society in question? The fundamental analogy or "research programme" of any particular school of social science is a certain "image of man".[31] The image of man behind behaviourism has been described as "man the sophisticated rat".[32] In the new and growing field of cognitive science the model is that of "man the information processor".[33] In social psychology it is "man the actor". Like all paradigms, these images of man are models or analogies, the extent of whose applicability is limited. When pushed too far, they become inappropriate and tend to break down. In cognitive science, for example, problems are encountered

when attempting to apply the information-processing model to the study of attitudes. Application to the affective domain reveals its limitations. In particular, problems arise when a potentially useful heuristic begins to acquire metaphysical status. The study of stimulus and response has a proper place as one of the varied aspects of human behaviour. But in behaviourism, this model of human functioning has assumed disproportionate importance.

Not only is the scientists' theoretical framework based on an implicit "image of man", but the implicit foundation of intersubjective understanding which makes society possible also consists of an "image of man". It consists, in the words of Charles Taylor, of a particular definition of "man, human motivation, the human condition," a particular "vision of the agent and his society."[34] We may contrast the aggressive individualism of the United States and many Western societies, for example, with the equally aggressive collectivism of Marxism, the tribalism of many parts of Africa, or the corporatism of Japan. We may contrast the philosophy of self-fulfilment or self-realisation typical of Western society with the self-negation of Eastern religion, in particular of Buddhism. The vision of the human condition, the goal of human striving, may be explicitly expressed in such documents as the American Constitution or the works of Marx and Lenin, or they may be implicitly present, expressed in the institutions or traditions of a given society. There may also be a significant difference between the ideals officially expressed and those more powerful covert elements of tradition, or of changing consciousness.

The applicability of the "images of man", which constitute the fundamental models of the social sciences, is a subject for both empirical investigation and for philosophical discussion. The empirical work involved in the gathering of information

must take place against the background of continuous conceptual analysis and reappraisal, of ongoing dialogue between the scientists' points of view and those present in the society in which the research is being carried out. In this dialogue, there is a role for the theologian. Theology criticises the images of man used by the social scientists and contributes to the conversation models such as "man in revolt", man as creature, man in the image of God. In particular, the theologian meets the image of man as autonomous agent required by the approach to social science based on human self-consciousness with an image of man constituted in his autonomy by a creator God, to whom he is responsible.[35]

The theologian contends that his images offer potentially greater explanatory power over a wider range of experience than do those proposed by the social scientist. But the applicability of the images of social science is not denied. Within a given sphere, such as social relationships or cognitive functioning, images such as man the "actor" or man the "information processor" may be valid and useful. The theologian predicts, however, that these images will eventually reveal their intrinsic limitations and perhaps be replaced.

The source for theological anthropology is the wider area of theology as a whole. Behind the images of man proposed by the theologian are further areas of theological understanding such as the nature of God, particularly as revealed in Christ. But the application of theological statements about mankind to experience, of selecting and appraising the evidence by which such statements are to be validated, requires the active co-operation of the social scientist, albeit a theologically aware social scientist. To a very large extent, this kind of empirical work remains to be done.

If theology and social science meet in a dialogue over their respective images of man, it is with respect to the image of the learner that the theological and social science approaches to Christian education come together. Whereas for the theological approach, the aims and methods of Christian education are based on a theological understanding of the learner, perhaps as a sinner in need of divine grace or as a person in relationship to God, for the social science approach these aims and methods are dictated by "the way the learner learns".[36] If, however, theology and social science meet at the point of the understanding of mankind, then "the way the learner learns" becomes a topic for theology. Learners learn in a particular way because of the way in which they have been constituted by God as people. Not only can theological anthropology assist in the approach to learning theory by acting as a guide through the maze of sometimes inadequate and frequently contradictory images of man encountered in the various fields of social science, but the study of learning can provide important empirical evidence as a contribution to the theological discussion of the nature of human beings.

3. The Possibility of Revelation

"Nearly all the wisdom we possess," wrote John Calvin, "that is to say, true and sound wisdom, consists in two parts: the knowledge of God and the knowledge of man. But while joined by many bonds, which one precedes and which one brings forth the other is not easy to discern."[37] True knowledge of God, Calvin observed, requires true self-knowledge. It is in contemplation of our sinful state that we are led to a consideration of God's perfection. On the other hand, true self-knowledge only arises in the light of and as a result of knowledge of God. Until we know God, we cannot know ourselves truly. It is difficult to decide which comes first, the knowledge of God or the knowledge of man and his sinful state.

Behind both the paradigms of the social scientist and the consciousness of the member of society lie certain "images of man", interpretations of the human condition, the nature and destiny of man, which provide an account for the scientist of the significance of his research and undergird for the "man in the street" his concept of his place in society and his relationships with others. Certain explicit formulations which include a definition of the goal of human striving and thus implicitly of the nature of mankind, such as the constitution of the United States or Marxist doctrine, exercise considerable influence by expressing overtly the shared vision of a society. But explicit statements such as these, as well as systems of ethics, are themselves interpretations of a tacit or implicit awareness of that which is proper to a human being, which it is impossible adequately to formulate.[38]

This common-sense understanding of the nature of mankind is "tacit" or pre-theoretical. The hermeneutical baseline from which the interpretation of human nature begins is incapable of reduction to specific explicit formulation. This brings us into the realm of "tacit knowledge", the term used by Michael Polanyi for the knowledge which lies "below the surface", upon which explicit knowledge is based. In Polanyi's words, "We know more than we can tell."[39] Certain problems, such as the basis for our belief in the reality of the external world and of the minds of others, as well as the way we are able to infer the feelings of others from their behaviour, defy analysis in explicit, logical terms.[40] These are cases, it is argued, in which tacit knowledge plays an important role. Explicit knowledge, Polanyi maintains, is always based on and takes for granted a significant amount of tacit knowledge which cannot itself be formulated.

> While tacit knowledge can be possessed by itself, explicit knowledge must rely on being tacitly understood or applied. Hence all knowledge is either tacit or else rooted in tacit knowledge.[41]

The "images of man" which are expressed, explicitly or implicitly, in the "research programmes" of the social scientist, the institutional fabric of societies and in philosophical and theological anthropology all emerge from and give expression to some part of the tacit foundation of human awareness.[42]

Behind the social scientist's quest for understanding, and even behind that of the natural scientist,[43] lies the fundamental question, "What is man?" The formulations in which the natural scientist attempts to answer this question themselves arise from the

ubiquitous yet elusive common-sense awareness of the human condition. Emil Brunner describes this "characteristic wisdom of the man in the street" in the following way:

> It is aware of man's freedom and also of man's bondage; of the higher element in man and also of his pitiful need; of the unity of his personality and also of the contradiction it contains. It is aware of man's eternal destiny, and yet also that man dies, and that all his life is in some way determined by the fact of death, and tends toward death...It is aware of the peculiar character of each individual, and also of the common element which binds all individuals together. This 'wisdom' knows all these things, but it cannot be grasped at any particular point. The more eagerly we try to seize it, the more elusive it becomes, this extraordinarily reflective, and yet at the same time superficial and incomplete kind of knowledge...Before and behind all scientific, philosophical and theological anthropology there lies this ordinary, universally human, naive, prereflective understanding of man, very variously interwoven, concealed, enriched and distorted by those other views, and yet independent of them.[44]

Science, philosophy and theology, Brunner believes, represent both a deepening and a distortion of this *sensus communis*. By means of systematic enquiry, the scientist, theologian or philosopher draws out and gives explicit expression to a particular aspect of common human understanding. But this very process introduces the risk of distortion through undue emphasis on one feature of a reality which is complex and paradoxical.[45]

"The problem of indicating the character of the human species," concluded Kant, "is quite insoluble."[46] The reasons he gave were, first, that since man is the only rational species, there is nothing to which he can be compared, and second, that because man is "his own final end", it is the species itself which determines its own character.[47] To this we may add a third reason, implicit in Kant's epistemology: man is the interpreter of the world, so who is there to interpret the interpreter? All philosophical systems remain open-ended. All must concede the insolubility of their fundamental question, the question of man. It is at this point that revelation becomes significant to philosophy. In relation to philosophy, the subject of revelation is man. Revelation is a potentially definitive hermeneutical baseline, a final solution to philosophy's fundamental problem. Revelation is decisive for human self-understanding in that it fills the gap left by philosophical systems. It offers a standpoint, not available within human experience, from which human experience may be definitively comprehended, an "image of man" to serve as the governing paradigm for the philosopher and for the social scientist.[48]

In revelation, then, knowledge of God and knowledge of man is given *together*. The revelation of the nature of God is at the same time a revelation of the reality of the human situation.[49] However, although potentially revelation provides a definitive hermeneutical baseline from which to begin the interpretation of human life, in practice it proves impossible to establish conclusively the nature of the "image of man" conveyed in revelation. Revelation is not itself theology. In order to be understood and communicated, revelation must be expressed in concepts, and thus give rise to theology. Theology, moreover, takes place within a social and conceptual framework, which includes as a

basic component a shared vision of man in community, his character, significance and destiny.[50] Theology is the product of members of a given society, whose ability to appropriate the revelation will reflect the conditions of the society in which their intellectual formation has taken place.[51] The challenge of liberation theology to what are perceived as the effects of Western culture on European and Anglo-Saxon theology provides a contemporary illustration of the fact that theology is, in principle, incapable of entirely outgrowing the constraints of its cultural context.[52] As Brunner comments,

> Even if revelation creates a new understanding, it does not create this without laying claim upon the natural understanding...Genuine theology is always a conversation between God and man in which the human partner in the conversation is not ignored, but, even though he is entirely receptive, he is apprehended with his whole nature.[53]

Not only does man remain a responsible subject in the process of revelation, but in this process the content of revelation becomes subject to the conditions of natural knowledge, including the possibility of error. It is a mistake for theologians to go beyond their own province by proclaiming as a divinely revealed truth what may be only an erroneous human conception of divine truth.[54] There is a hermeneutical movement within theology itself. While theology is a reflection of and attempt to understand what has been given by revelation, it includes within its province the enquiry into both the content and method of revelation. Revelation itself is a theological doctrine, the proper methods of whose articulation include the tools of philosophy.[55]

The distinction between revelation and theology is a reflection of that between tacit and explicit knowledge. While the doctrines of theology are explicit formulations of the faith, revelation itself is not explicitly but tacitly understood. The "images of man" which underlie the theoretical frameworks within which and by means of which men and women arrive at their understanding of the world and their own place in it exist at a tacit, pre-theoretical level. If revelation conveys a definitive understanding of the human condition, then it is to be appropriated not at the level of concepts but at that of man's pre-conceptual awareness of his identity. In revelation, God deals directly with the essential subject, the "I" behind the empirical self, the person behind the "persona", whose real nature is known only to God himself.[56] Revelation is a personal encounter, in which the initiative is that of the sovereign God. While from the point of view of philosophy the content of revelation is anthropological, the provision of a definitive image of man, from the point of view of theology its content is God. The understanding of the human condition which results from it is a reflection of what is revealed about the nature of God.[57]

Notes

1. *Treatise*, p.4

2. *Anthropology*, p.183.

3. See my paper, "Theology or Social Science?", from which part of the material for this chapter is drawn.

4. The errors of positivism apply equally to a wider range of theories of science. See Hacking, *Scientific Revolutions*, p.1-2 for the characteristics of the "image of science" displaced by the revolution in philosophy of science inaugurated by T.S.Kuhn and others.

5. S.Toulmin, "The Concept of 'Stages' in Psychological Development", *Cognitive Development and Epistemology*, ed.T.Mischel, p.25-37. I.Barbour, *Issues in Science and Religion*, p.139,146-148, *Myths, Models and Paradigms*, p.94-98. N.R.Hanson, *Patterns of Discovery*, p.1-30, *Perception and Discovery*, p.59-198. See also J.Phillips, "Basic Beliefs".

6. Toulmin, *op.cit.*, p.26.

7. Hanson, *Patterns*, p.1-30.

8. Phillips, "Basic Beliefs".

9. Toulmin, "Does the Distinction Between Normal and Revolutionary Science Hold Water?", *Criticism and the Growth of Knowledge*, ed. I.Lakatos and A.Musgrave, p.39-48. T.S.Kuhn, *The Essential Tension*, p.225-239. See M.de Mey, *The Cognitive Paradigm*, p.173-226.

10. Kuhn's work, *The Structure of Scientific Revolutions*, published in 1962, caused considerable controversy, but its implications not only for science but for philosophy in general have been far-reaching. His initial statement, including his definition of "paradigm", has been modified and developed in the course of discussion. A volume of collected papers, *The Essential Tension*, gives a more subtle and considered version of his theory than the earlier statement. In this modified form, it has increasingly been accepted by scientists and philosophers of science. One of the features of Kuhn's theory is that it is an attempt to describe what scientists *actually* do, rather than what they *should* do. This means that, like Wittgenstein's philosophy, it "leaves everything the same". In practice, Kuhn points out, the conceptual framework of a given branch of science is simply taken for granted. Scientists get on with their work without actually reflecting philosophically on their paradigm. The use of the term "paradigm" to mean "shared conceptual framework" is deliberately simplified. Two distinct meanings of the term are to be recognised:

1. Paradigm as achievement - an accepted way of solving a problem. Kuhn's title for this sense of the term is "exemplar". For further detail, see p.80f.

2. Paradigm as a set of shared values - which Kuhn calls the "disciplinary matrix". Hacking describes this sense as, "The methods, standards and generalisations shared by thoses trained to carry on the work that models itself on the paradigm as achievement.

The social unit that transmits both kind of paradigm may be a small group of perhaps one hundred or so scientists who write or telephone each other, compose the textbooks, referee papers, and above all discriminate among problems that are posed for solution. (Hacking, *op.cit.*,p.2-3. See also Kuhn, "Second Thoughts".)

11. Popper, *Logic*, sections 28 to 30, especially p.110-111.

12. Lakatos, "Falsification and the Methodology of Scientific Reseach Programmes", *Criticism*, p.116-165; M.Masterman, "The Nature of a Paradigm", *ibid.*, p.76-85. Lakatos understands his proposal as a modification of Popper's theory and an alternative to Kuhn. The main reason for this position appears to be his wish to exclude the intersubjective context of scientific research as irrelevant. Like Popper, he still believes psychological considerations to be antithetical to logical analysis. His aim is to explain the process of theory formation and development entirely in logical terms without recourse to psychological explanation. In the course of the discussion of learning in chapters 2 to 4 of this thesis, it is hoped to demonstrate that the idea of a clear separation between logic and psychology, such as both Popper and Lakatos attempt to maintain, is untenable. The logical and psychological features of the work of the scientist are correlative. Masterman demonstrates in her article that many of the key features of Lakatos' "research programmes" are also features of Kuhn's "paradigms". A paradigm, she concludes, is a "crude analogy" of finite extensibility. Like Lakatos' research programme, it extends itself by "intuitive inference" and fails under the weight of accumulated anomalies when pushed too far. According to Hacking (*op.cit.*, p.142) the parallel between Kuhn's paradigms and Lakatos' research programmes is now widely accepted.

13. Lakatos' is implicitly a theory of scientific "progress". The implication of his view is that science progresses under its own impetus towards increasingly adequate descriptions of the real world. It is also closely related to Kant's epistemology. The "real world" is empirically real, in that it discloses itself to our senses, but transcendentally ideal, in that it can never be said to be finally known except through the analogy of a scientist's model. If the points made in the previous footnote are correct, the same can also be said of Kuhn's theory.

14. For further development of this argument, and particularly its implications for philosophy, see below, p.46-52.

15. See Hilgard and Bower, *Learning*, for summaries of the major behaviourist theories. See Howe, *Learning*, for an account of the status of behaviourism in mainstream psychology today. Howe admits the need for widening the behaviourist approach and dropping some of the more hard-line behaviourist tenets, such as the refusal to allow meaning to descriptions of "mental events". But he shows no sign of recognising the fundamental shift in philosophical and epistemological standpoint necessitated by such an admission. (*op.cit.*, p.27-63)

16. See C.Taylor, *Explanation*, in the case of behaviourism.

17. Hobbes, *Leviathan*, part I; T.Mischel, *Human Action*, p.5f.

18. Hume, *Enquiry*, p.14.

19. Charles Taylor, *Explanation*, demonstrates that Humean empiricism is the unexamined philosophical foundation of behaviourism.

20. Mill, *System,* p.844-860, 875-878. See also Hume, *Treatise,* p.4-8. Mill refers, in his treatment, to the positivism of Auguste Comte.

21. Kant, *Anthropology,* p.9.

22. The creation of the perceiver's psychological environment or world-view will be dealt with in detail in chapters 2 and 3.

23. See below, p.66-67, 148-152, for discussion of agency and subjectivity.

24. The breakdown of logical empiricism now threatens the distinction between the natural and the social sciences in a new way. Whereas previously the tendency was for social scientists to attempt to conform to the positivist ideal of science, with the discovery of the hermeneutical element in the natural sciences, the distinction appears to collapse from the opposite side. As Charles Taylor puts it, "Old-guard Diltheyans, their shoulders hunched from years-long resistance against the encroaching pressure of positivist natural science, suddenly pitch forward on their faces as all opposition ceases to the reign of universal hermeneutics." ("Understanding", p.26) Under the influence of Polanyi, Kuhn and others, scientists may now recognise themselves as participants for whom commitment and consensus are indispensable. But unlike the social world, the natural world is not a participant in this sense. It does not generate meanings of its own, which are internal to the enquiry. The hermeneutical features of natural science can and may be "bracketed", or left out of account for the purposes of experiment. See note 10 above.

25. Schutz, "Theory Formation", p.6. See also Winch, *Idea,* p.83-86. Winch argues that the "scientific" study of society requires the imposition of a paradigm by which to explain the regularities involved in the events under investigation and their relation to each other. This paradigm is the product of a given society. In other words, the "objective" study of society takes society for granted. This point is closely related to the study of ideology. There, however, the emphasis seems to be upon the limitations imposed upon the scientist by the ideology within which he works. In the hermeneutical approach to social science, the emphasis is on the opportunity offered by the encounter between societies for the transcending of ideology.

26. See the *Encyclopedia of Philosophy,* vol 1-2, p.405

27. Weber, *Theory,* p.87f. See also *Interpretation,* p.77-89 and p.28f of the "Introduction" by J.E.T.Eldridge; also R.Aron, "The Logic of the Social Sciences", in Wrong, *Weber,* p.77-89.

28. See below, p.113f., on *verstehen.*

29. Schutz, "Theory Formation"; Ryan, *Philosophy,* p.127-170; Shotter, *Selfhood,* p.3-50; See also Harre and Secord, *Explanation,* esp.p.1-27.

30. The relationship between social science and philosophy is thus a close one. Winch has even suggested that social science is little different from philosophy, consisting of the conceptual examination of "forms of life". This claim is balanced by the position implicit in Berger and Luckman's *Social Construction of Reality,* that philosophy is, in fact sociology. Both aspects of social science, the conceptual and the empirical, need to be held in tension.

See Ryan, *Social Sciences,* p.127-170 for an account of the status of the social sciences.

31. See, for example, Bandura, "Behaviour Theory"; Sampson, "Paradigms"; Sampson, "Ideology"; G.A.Miller, "Human Welfare"; Shotter, *Images of Man*.

32. Schlenker, *Impression Management*, p.9.

33. Barber and Legge, *Perception*.

34. C.Taylor, "Interpretation", p.182,193.

35. See further p.146-152 below.

36. For R.C.Miller, for example, it is the fact that the learner is in relationship with God which guarantees the legitimacy of the theological approach. Theology provides the learner's authentic self-understanding, a sinner in need of reconciliation. Theology defines the dynamic of the "I-Thou" situation in which the learner is involved. Theology specifies the need for teaching techniques to be relationship-centred. (*Theory*, p.156-164)

For J.M.Lee, on the other hand, it is the learner as learner which is the relevant anthropology for religious instruction, and an understanding of how the learner learns is not to be found within the province of theology. "Religion," he maintains, " is learned according to the way the learner learns and not after the manner of its own existence."(*Flow*, p.58) Religious instruction is to be person- rather than content-centred.

John Westerhoff believes that the metaphors of "production" and "growth" implicit in the "schooling" approach to education need to be challenged. The methods of curriculum development, involving stated objectives, the choice and organisation of learning experiences and evaluation of their outcome, have sufficient truth behind them, he believes, to warrant their use, but they are insufficient for the education of *persons.* A better model for religious education is the *pilgrimage,* in which the religious educator plays the role of fellow-pilgrim as well as guide. (*Faithful Church*, p.298)

37. Calvin, *Institutes*, I.i.1.

38. See Dreyfus, "Holism and Hermeneutics", and the examples quoted there.

39. Polanyi, *Tacit Dimension*, p.4.

40. Stace, "Unreasoned Beliefs", gives an extensive list of such beliefs.

41. Polanyi, "Logic", p.7; *Knowing and Being*, p.144.

42. A distinction is to be made between "tacit knowledge" in a broad sense as knowledge derived from experience and used to provide a framework for comprehension in new learning, and the much narrower sense used here, in speaking about those foundational elements in human cognition which, although operative only in experience, can not be said to be derived from experience. These elements constitute a particular, highly significant, type of tacit knowledge. It is elements of this kind to which Kant drew attention in proposing his concept of the sythetic *a priori*, although Kant's own list of such foundational categories was far too extensive. Pylyshyn, in a very interesting article, "Computation and Cognition", refers to such elements as "functional architecture". In terms of the computing analogy, they constitute the basic programme, without which no other programme can be made to work. It is difficult to be certain about exactly which elements of tacit knowledge belong in this narrower class.

43. Polanyi, *Study of Man.*

44. Brunner, *Man in Revolt*, p.46-47.

45. *ibid*., p.47f. It is to be noted that this passage is taken from the introduction to a *Christian* anthropology. In some respects, therefore, it anticipates the conclusion of the argument. However, the connection between Brunner's description of common-sense anthropology, Polanyi's concept of tacit knowledge and the idea of "images of man" as fundamental to the human sciences should be noted.

46. Kant, *Anthropology*, p.183.

47. *ibid*., p.3f.,183f.

48. The possible implication of this position, namely that theology become a kind of universal science is noted by Brunner in an Appendix to *Man in Revolt*, p.544f. In order to avoid this implication, Brunner uses his argument of the varying degree of relevant Christian influence over various subjects. There is no distinctly Christian mathematics. This is a science whose correct development lies within the capacity of the natural man. But the nearer one comes to the centre of personality, the greater the distortion of natural human understanding, and the greater the relevance of theology. See also *Revelation and Reason*, p.383. This argument is different from the one used in the text, but related to it. The centre of tacit knowledge, it is argued, is the personality, while mathematics is the science most capable of complete explicit expression.

49. One of the main problems about the relationship between the knowledge of God and of man in revelation is the problem of authority. Is revelation to be its own authority or is it to be validated by means of existing human knowledge, the power of reason? If the former, the part played by human knowledge in its reception appears to be minimal. If the latter, then the authority by which revelation is received is that by which it is validated, namely human reason, and the concept of authoritative revelation becomes impossible. Positions in the debate tend to be polarised. Reinhold Neibuhr, for example, argues,

Religious faith cannot be simply subordinated to reason or made to stand under its judgement...When this is done, the reason which asks the question whether the God of religious faith is plausible has already implied a negative answer to the question, because it has made itself God, and naturally cannot tolerate another.

(*Nature and Destiny of Man*, vol.1,p.165-166)

The principle proponent of this position is Karl Barth, who writes,

God's revelation has its reality and truth wholly and in every respect... within itself. Only by denying it can we wish to ascribe it to a higher or deeper ground... The adoption of revelation from the vantage of such a ground, different from it and presumably superior to it... can only be achieved by denying revelation.

(*Dogmatics*, I/1, p.350)

What is denied in the position taken in this thesis is the either/or nature of Barth's argument. If revelation is to come to man and be appropriated by him it cannot be allowed that its truth be *wholly and in every respect* within itself. There must be some aspect of its truth corresponding to the human ability to understand it. Again, it is

incorrect to suppose that "some other ground" than revelation from which it can be understood is necessarily superior to it. Precisely the opposite is being argued here, namely that revelation supplies what is lacking in that other ground. On Barth's position, see further notes 55 and 57 below.

The opposite position, that "revelation" is to be understood in terms of human capacity has been taken to be an implication of the highly subtle position of Schleiermacher. He rejected the idea that revelation could be understood as doctrinal, that is as given to the understanding, for the reason given above, namely that if revelation can be understood in cognitive terms there can be nothing supernatural about it. The ability to know God, he believed, was a natural human capacity, but a capacity not of man's thinking nature, but of *feeling*.

"God," he argued, "is given to us in feeling in an original way; and if we speak of an original revelation of God to man and in man, the meaning will always be just this, that along with the absolute dependence which characterises not only man but all temporal existence, there is given to man also the immediate self-consciousness of it, which becomes a consciousness of God."

(*Christian Faith*, §4,p.17-18)

However, Schleiermacher did allow that in Jesus Christ God had done something decisive which stood outside outside the chain of historical causation. "Revelation", he said, could be used to refer to the "originality" of the fact which begins religious communication. Since our awareness of God is related not to our thinking but to our "feeling" capacity, however, the impression of Jesus is not cognitive, but that of "A being who works upon us directly as a distinctive existence by means of his total impression on us." (*Christian Faith*, §10, p.50)

For those theologians who deny the propriety of understanding Jesus' life or any other divine action as a supernatural intervention into what they take to be a closed continuum of cause and effect, this latter part of Schleiermacher's position is abandoned and revelation is reduced to "religious receptivity". See, for example, Wiles, "Revelation".

50. Although the knowledge of God is given from beyond theology, it is appropriated within the "complex situation involving our cognition of the world around us and of ourselves along with it." (Torrance, *Theological Science*, p.32)

51. See below, in particular p.89-90, for the pattern of assimilation and accommodation characteristic of human learning. If revelation is received in ways appropriate to the normal human processes of understanding, then this pattern applies also to the understanding of revelation.

52. Gutierrez, *Liberation*, esp.p.1-14; Segundo, *Liberation.*

53. Brunner, *Revelation and Reason*, p.15-16. It is doubtful if the recipient of revelation can be said to be "entirely receptive" in every sense. It will be argued, not only that the appropriation of revelation does not involve the suspension of human autonomy, but also that the recipient is in some sense active in its understanding. See note 49 above.

54. Brunner, *Man in Revolt*, p.70.

55. This position was strenuously resisted by Karl Barth. Barth believed that theology was based solely on revelation, which provided all the tools needed for its own understanding and articulation. To bring philosophical analysis to the task of theology, he argued, is to look for rules by which to fit the Church and Christianity into some broader and more inclusive overall scheme.

The possibility of this solution stands or falls with the answer to the question whether there really is a nexus of being superior to the being of the Church, and consequently a nexus of scientific problems superior to dogmatics. (*Dogmatics*, I.1,p.38)

Barth expresses the conventional, positivist views of his time on the status of science. The methods of science, he wrote, consist of observation and inferences. Exact science, when it avoids philosophising and laying down a "world view", is in fact "pure knowledge". (*Dogmatics*, III.2, p.12) Barth believed that science, being empirically based, is capable of pursuing its object independent of philosophy, or "speculation". In relation to anthropology, he separates the empirical study of man in nature from philosophical or "speculative" anthropology, discerning no connection between them. (*Dogmatics*, III.2,p.21-26) While scientific anthropology pursues its course independent of philosophy and without threatening theology, speculative anthropology is the enemy of theology, whose only source is revelation. The effect of revelation is not to reform human speculation but to replace it. Theology has no conception of itself as knowledge in common with the world. Theology "cannot think of itself as a link in an ordered cosmos, but only as a stop-gap in a disordered cosmos." (*Dogmatics*, I.1,p.8)

This concept of the relationship between philosophy, science and theology, which underlies his theology, is one of the most significant differences between Barth and his contemporary, Emil Brunner. Unlike Barth, Brunner accepts the interdependence, which we have demonstrated, between philosophy and science. As attempts to describe the way things are, philosophical statements contain an implicit metaphysical commitment. They must, then, be capable of being earthed in experience by supplying hypotheses which can be put to the test. This "principle of empirical criticism" applies equally to theological statements, even though they originate with revelation. Even as statements of faith, they must be capable of application to experience. (*Man in Revolt*, p.60-63) Theology, then, stands in the same relation to science as does philosophy. The difference is that the images of man which it brings to the criticism of scientific research originate with revelation.

56. Paul Tournier writes, "The personage I put on in ordinary life is no longer of any avail to me: God does not stop at the *personage* - he goes straight to the person." *Meaning of Persons*, p.167. For the distinction between the "I" and the empirical self, see below, p.130-131, 146-148, 164. For the nature of revelation as addressed to the person, see p.159-160, 174-176.

Thus, although definitive, in that it consists of a definite content, the Person of Jesus Christ, revelation is not propositional. To be propositional, it would need to consist of *explicit* information. Rather, it is argued here, revelation is given at the tacit level.

57. It is, therefore, correct to maintain, with Barth, not only that revelation is something that only God can do, whose only condition is his grace, but also that for the person in receipt of revelation it constitutes a regrounding of one's subjectivity. Knowledge of an

object, argues Barth, changes the knower. It makes him a responsible witness to the truth of that object. (*Dogmatics*, I.1, p.188) In knowing, the truth of the object, "becomes a determination of the existence of the man who has knowledge." Thus, "By the experience of God's Word, which is possible for men on the presupposition of its reality, we understand this determination of their existence as men by God's Word." (*ibid*.,p.198-199) The knowledge of God differs from that of ordinary objects in that God is unique.

When man enters into that uniting and distinguishing relationship to an object, his subjectivity is opened up to an objectivity and he is grounded and determined anew. But in faith the same thing happens quite differently. This difference consists in the difference and uniqueness of God as its object...This knowledge is a special knowledge, distinct from the knowledge of all other objects, outstanding in the range of all knowledge.(*Dogmatics*, II.1,p.14-15)

This difference consists chiefly in the fact that God cannot become an object for us in the same way as other objects. God is always and only Subject. Man cannot enter into a relationship with God by his own volition. It is God who creates the relationship with man. Thus, Barth argues, the possibility of revelation depends upon its prior actuality and not on anything to do with the conditions of human life.

All this can be accepted, however, without affecting the main argument of this section that there exists a "point of contact", to use Brunner's rather unsatisfactory phrase, at which revelation may enter what Barth calls the "nexus" of philosophical thought. This point of contact is the inexpressible tacit awareness of human being. Nothing about this observation guarantees that there must actually be a revelation to resolve the question of the nature of mankind. The fact that there is a revelation, and that in that revelation God himself is known, is entirely due to God's grace.