

Evolution, knowledge and Christian faith: Gerd Theissen and the credibility of theology

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Abstract

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In this article the way in which Theissen uses the evolutionary paradigm as a comprehensive framework for interpreting not only central themes in theology but also the credibility of theology as such, is analysed from an epistemological point of view. Theissen's overall choice for critical rationalism is criticized as an epistemological blurring of paradigms, and thus of models of rationality, and typified as a quest for realism and explanatory progress in theology instead. In interpreting the evolutionary paradigm for theology, Theissen does, however, open up exciting possibilities for retaining the scientific and cognitive status of theological statements.

1. AN EVOLUTIONARY INTERPRETATION OF CHRISTIAN FAITH

Gerd Theissen's recent *Biblical faith: An evolutionary approach* (1984) is an excellent example of the fact that the credibility of theology is invariably linked to the problem of the credibility of Christian faith as such. To be able to fully appreciate his important perspective on this problem, I think this book should be read against the background of his former *On having a critical faith* (1979). From both these books emerge what can surely be seen as the most basic problems for any critical contemporary theologian:

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- why he/she continues to identify consciously and openly with the Christian tradition;
- the problem of **truth** in theology, which as such poses the unavoidable epistemological quest for **rationality** in theological thought.

The basic theses of both Theissen's books can be summed up as follows:

- There are good reasons for being a Christian and for constructing Christian theology in a scientifically credible way.
- This does not, however, mean that Christianity can be defended in its traditional form.
- If good theology, and therefore what I would prefer to call the **quest for epistemological credibility** has to be retained, Christian faith will have and should be able to change.

Theissen (1979) explicitly wants to point out that Christian faith can stand up to relativist, empiricist and ideological critique, and what is even more important: the Christian theologian can offer unconditional personal commitment and renounce any absolutist claims for theological statements at the same time. This intention of his will have far-reaching consequences when in *Biblical faith: An evolutionary approach* he specifically follows Karl Popper and epistemologically opts for a critical rationalist paradigm of thought. Already in the first of the two books (1979: 2ff) Theissen – to my mind correctly – states that 'truth' in theology could never be a limited number of established propositions but instead functions as a normative idea that constantly puts all our theological statements to the test. What Theissen really means by this, will of course have to be assessed very carefully.

Theissen rightly warns that theologians should avoid the intellectual coma (1979: 6) of positivism in theology (cf Van Huyssteen 1986: 23ff) at all cost. This means that traditional Christian religious statements should be reformulated in such a way that they could be shown to be expressions of possible religious experience. Here Theissen is very much to the point: relating theological statements, as the intellectual reflection on religious statements, to religious experience as such, could be the only way of countering the suspicion that religious statements may be projective, illusionary and thus **anti-realistic** by nature (cf Van Huyssteen 1986: 169ff). This is probably the most important reason why I would typify Theissen's work as a **quest for realism in theology**, although he, unfortunately, never identifies this all-important problem

from a contemporary philosophy of science point of view. My main objections to the way in which he eventually opts for the evolutionary paradigm will be directly related to what I would prefer to call an **epistemological blurring of paradigms, and thus of models of rationality, in Theissen's otherwise excellent work.**

I would therefore like to show that it is not so much Theissen's underlying **realist position** that I personally find problematical, but much rather the epistemological model of thought and the type of assumptions he works from to arrive at this position.

A central theme of both books is therefore to be found in the profound statement that an **ontological gulf** (1979: 12) permeates reality. For Gerd Theissen this is the basic (epistemological) reason why the objects of religious experience transcend the ordinary everyday world. He consequently speaks of a 'more than life', a 'search for a reality which has yet to be disclosed' (1979: 13), and an 'adaptation to a reality which extends beyond humanity' (1984: 15). From a philosophy of science point of view this obviously reveals a theoretical commitment to some form of realism in theology. But in neither of the two books this basic assumption is ever put to discussion. What could have become the most exciting and creative basis of Theissen's argument, for this very reason unfortunately becomes the most problematical.

I can otherwise fully identify with Theissen's basic and central question: Will religion eventually and irreversibly be dissolved in the process of secularization, or does it in fact preserve an attitude to reality which will never be out of date (1979: 20)? Obviously religion is tied up with the quest for meaning in human life, but the central question remains: Do religious experiences indeed have a **real content** (1979: 26), or as I would prefer to phrase it, do religious experiences and our theological statements about these experiences really refer?

Theissen in fact specifically raises this question (although to my mind he never answers it in a satisfactory way): Are there any reasons why religious conceptions should be grounded in an objective reality or are they all based on dogmatic confessions of faith (1979: 28f)? To this question he provides a very ambiguous answer, which I think is directly related to a very problematical reception of the Popperian model of thought, or what I earlier called a 'blurring' of paradigms, in his own theorizing:

- On the one hand Theissen (1979: 23) clearly states that it is as impossible to show some of our contemporaries that religion in-

volves a fundamental relationship to reality (and is not just a reaction to frustration or an unconscious piece of self-realization) as it is to show colours to a blind man.

- On the other hand Theissen (1979: 29) claims that we must look for an 'empirical' basis for religious statements, and then on the basis of the fact that statements can only be tested if the reality to which they relate can be compared with the reality that we experience.

I fully sympathise with the fact that in the long run religious experiences should be seen as the only real origin of statements of faith and thus also of theological statements. But if this empirical basis should imply a correspondence theory of truth where the reality of religious experiences should be 'tested' against the reality to which these experiences relate, this of course becomes highly problematical. Theissen (1979: 32) explicitly states:

The anthropomorphic reality which religious statements seek to express must be compared with the reality which we experience; this is the only way of testing its truth-content.

This not only implies an epistemological retreat to a positivist paradigm as far as a model of rationality for theology goes, but also goes directly against Theissen's own Popperian or critical rationalist idea of a normative truth.

In theology any access to the reality to which believers relate in terms of a corresponding theory of truth is obviously impossible. But quite apart from the problems positivism has created and still creates for theology, access to the reality to which believers relate, is possible only through the metaphorical concepts of the Christian faith. And this becomes epistemologically credible only within a critical realist model of rationality. As I have tried to point out earlier, it is only within this type of rationality model that the Christian theologian can offer unconditional personal commitment and at the same time critically renounce all absolutist claims for theological knowledge. And this, I think, is precisely what Theissen wants to achieve.

Against this background I find it tremendously important that Theissen can explicitly state that religious conceptions have a **symbolic** character (1979: 30), and that in these conceptions 'the familiar is projected on to the unfamiliar, and earthly images serve as metaphors for "divine mysteries"'. My critical question here would be – especially when he eventually uses metaphors from the theory of evolution –

whether Theissen really follows through the creative possibilities of this line of thought and whether he indeed grasps the full epistemological and methodological implications of this implied theological realism for the scientific credibility of theology?

The constructive choice in Theissen's thought for a form of realism in theology seems very obvious when he asks: 'Are there structural affinities between non-human and human reality? Only if this is so, can there be a justifiable foundation for the anthropomorphism of religious imagery' (1979: 32). What really is meant by 'structural affinity' will eventually be all-important for an evaluation of Theissen's choice for an evolutionary explanation of the Christian faith. It will obviously also be basic to any credible form of realism in theology, and will therefore have to be defined carefully.

Furthermore, what is very important for understanding Theissen's version of realism in theology, is that he can – and correctly so – state: 'Whatever we may understand by "God", he cannot be conceived of without his being related to the whole universe, the most distant galaxies and the tiniest atomic elements' (1979: 33). And to this he adds the profound statement: 'Religion seeks to relate man to the whole of reality, not only to our fellowman, even if our neighbour may concern us more than anyone else.'

Theissen eventually chooses a comprehensive concept which covers both relationships between human beings and experiences of the holy other than in human relationships, and this he calls **the experience of resonance** (1979: 33; 1984: 19f). This concept implies not only structural affinities which are objectively present, but also their subjective effects: on the one hand, man shows his longing for resonance in reality. On the other, he is powerfully affected by the structures in reality which are capable of resonance and adopts a responsive attitude towards them (1979: 33).

Furthermore, since religious experiences are concerned with **meaning**, every experience of resonance stands out from the background of possible absurdity. For Theissen (1979: 34) religion therefore is the sensitivity towards the resonance and absurdity of reality. And the credibility of religion would therefore depend on whether there is an experience of the holy which is capable of moving life to the very depths and which at the same time can withstand critical examination.

After having discussed the amazing structural affinity between the constructs of science and what he calls 'objective reality' (1979: 35f), Theissen proceeds and develops his argument for what would eventu-

ally become (1984) an evolutionary interpretation of the essentials of the Christian faith, by specifically stating:

It could well be that the similarity between nature and the structures created by our understanding requires the hypothesis of an objective spirit, a creative understanding or an intrinsic purpose within the universe (1979: 35).

Why Theissen specifically chooses the theory of evolution to try to deal with the credibility of Christian belief from the perspective of scientific thought, is never really made quite clear – except for the fact that the evolutionary paradigm is regarded as the most comprehensive scientific framework that we can use in our time (Theissen 1984: xi). His choice for the theory of evolution might perhaps best be explained by the following statement:

It is possible to interpret the whole of evolution from aqueous matter to the most complicated organisms as a heightening of life. In that case, man's own life appears as the echo of an all embracing tendency of life towards something more than life (Theissen 1979: 48).

This quotation highlights the – to my mind – two most important factors in Theissen's theological model, and also the basic reasons for his choice for the paradigm of evolution as an explanatory model for Christian faith:

- his decision for a very definite form of realism in theology;
- his basic and ultimate decision for Christianity.

An evaluation of Theissen's exciting thought will therefore not only have to deal with his interpretative adaptation of evolutionary categories for theological thought, but also very specifically with the realist implications of his basic argument and with the difficult question as to whether his ultimate commitment to the Christian faith is indeed compatible with his apparent choice for what he calls the 'evolutionary epistemology' of Karl Popper's critical rationalism (Theissen 1984: xii).

2. THE THEORY OF EVOLUTION, FAITH AND KNOWLEDGE

In his recent book Theissen (1984) very clearly outlines his objectives: he wants to **analyse** and **interpret** Biblical faith with the help of

evolutionary categories, seeing the theory of evolution as one of the most fascinating constructions of human reason which as such can generate an explanation of the framework which determines our life (1984: xi).

Theissen therefore clearly handles the theory of evolution as an explanatory structure by which our knowledge can – as he specifically states (1984: xi) – **adapt to reality**. Obviously the theory of evolution itself has undergone evolution, can never be absolutised and as such has limited validity. But what is even more important is that Theissen (1984: xii) also explicitly rejects any form of **biologism**, i e, a naive transference of biology to human culture. In fact he interprets human history (including the history of Biblical faith) by means of a theory which analogously derives from biology and therefore does not claim an unbroken continuity between biological evolution and human history.

When Theissen eventually analyses and interprets Biblical history, he therefore never in a naively optimistic way sees straight lines of development from the beginnings of Israel to primitive Christianity. On the contrary, he consistently stresses **discontinuity**, the **break** in history, the new beginning: thus monotheism in Israel (1984: 43ff) and Jesus of Nazareth, his proclamation and ministry, are not interpreted as the result of an 'evolution', understood as continuous development (1984: 83–128). Both of these are instead to be viewed as revolutions in the history of religion.

In outlining the analogies between biological and cultural evolution, Theissen uses the theory of evolution as an explanatory model for dealing with the complex and problematical relationship between **faith and knowledge**. Eventually he tries to demonstrate that with the aid of evolutionary categories like **adaptation**, **selection** and **mutation**, faith and knowledge can be shown to have much more in common than the so-called 'contradictions' (1984: 3–8) between scientific thought and religious faith would seem to suggest.

The fact that Theissen contrasts scientific thought and faith in the first chapter of his book, seems to be rather obvious and unproblematical. That he does, however, try to pinpoint the knowledge-faith problem by identifying three **contradictions** between **scientific thought** and **faith** I find highly problematical. I think that not so much the so-called contradictions between scientific thought and faith should be discussed, but much rather – and much more appropriate – the problematical relationship between **scientific thought**, on the one hand, and **theological reflection on faith**, on the other.

Later in this book (1984: 37) – unfortunately after having discussed the three contradictions between scientific thought and faith – Theissen does in fact refine this problem in a way and suggests a parallel development or co-evolution of knowledge and faith, or science and theology. He in fact typifies science and theology both as thought-through and therefore systematized forms of belief. It is indeed not so much the relationship between science and faith, but instead the relationship between science and theology – as critical reflection on faith – which is the real problem here.

I also think that this refined and more accurate distinction would have rather profoundly influenced the way Theissen identifies ‘contradictions’ between science and faith. Religious faith would only be in opposition to science within a positivist paradigm, and of course also in a critical rationalist one. Within a critical rationalist model of rationality, faith could of course be meaningful and even true (cf Van Huysteen 1986: 44). Faith, and statements about faith could, however, never form part of the so-called scientific context of justification and therefore of the scientific process itself. The fact that Theissen consciously chooses for a Popperian and thus critical rationalist epistemology will obviously be of direct relevance for the way in which he deals with the relationship between religious faith and knowledge. Whether Theissen in fact remains true to the Popperian line of thought, remains to be seen.

I am convinced that in the end Theissen’s choice for the theory of evolution as an attempt to integrate human knowledge, is not so much motivated by the critical rationalist ideas of verisimilitude, corroboration and falsification, but by the **realist assumptions** and eventual exciting **realist implications** of this model for theology. From a philosophy of science point of view it would therefore have been more consistent as well as more fruitful to opt for a **realist position in scientific as well as theological thought**. This would have enabled him to retain his arguments for the credibility of theological thought, but then with a much more convincing and stronger epistemological basis.

3. THE THREE CONTRADICTIONS BETWEEN SCIENTIFIC THOUGHT AND FAITH

Eventually Theissen (1984: 18ff) correctly sees knowledge and faith as complementary expressions of life. His attempt to integrate faith and

knowledge now makes it necessary to take a closer look at the way he not only identifies three contradictions between scientific thought and faith, but also at the way each of these contradictions are in the end 'revitalized' by Theissen. The three contradictions and Theissen's revised and improved interpretations of these 'standard problems' are:

3.1 Scientific statements are hypothetical while statements of faith are apodeictic (1984: 4)

– over against this Theissen (1984: 18) states:

Hypothetical scientific thought and apodeictic faith are different forms of adapting to an unknown reality

The way in which Theissen's choice for a critical rationalist model of rationality determines both these formulations, have already been briefly pointed out. From a realist position, where the real problem has been identified as the problematical relationship between **scientific thought and theological thought**, it would suffice to say: **Both** scientific and theological thought are provisional and therefore each in its own way hypothetical and as such forms of 'adapting' to different dimensions of an unknown reality. Furthermore, this does not in any way contradict the 'apodeictic' character of living faith and the ultimate religious commitment that grounds this faith. I am therefore convinced that the character of the act of faith and the ultimate religious commitment that always precedes it, should in no way be confused with the nature of **statements about faith**, which in their own way are as hypothetical as any other scientific statements.

What I therefore find lacking in Theissen's otherwise excellent work, is a clear distinction between the role and functions of an **ultimate religious commitment** and that of a **theoretical commitment** to a specific paradigm of thought. This distinction is necessary if he – with good reasons – still prefers to opt for the explanatory possibilities of the evolutionary model so that he can move away from the often tacit limitations of positivism which still haunt the rationality model of critical rationalism, to the much more creative epistemological possibilities of current scientific realism.

What makes this so important is that Theissen, although apparently following Popper in his choice for an evolutionary epistemology, does not seem to realize the implications of this choice for the credibility of theological thought: From a critical rationalist viewpoint not only faith

and an ultimate religious commitment are bracketed out of the scientific 'level' of the so-called context of justification, but also the analogous interpretation of cultural evolution as a higher form of biological evolution are – when it comes to the history of Christian faith – in no way open to falsification in the true sense of the word. The acceptance of an evolutionary epistemology and certain basic concepts from critical rationalism in this way therefore leads to the 'blurring' of paradigms of which I spoke earlier. The answer to this problem is, I think, to be found in the transcending of this thought model and in an exploration of the very obvious quest for realism which so clearly typifies Theissen's work.

3.2 Scientific thought is subject to falsification; faith goes against the facts (Theissen 1984: 4)

– in contrast to this Theissen (1984: 18) claims:

Science controlled by falsification and faith which goes against the facts are different forms of coping with the pressure of selection exercised by reality

I think this statement of Theissen's can only be applied to religious faith as a **lived deed** (*fides qua*), but never to theological reflection and therefore to theological statements about faith as such. Of course, in most of the (natural) sciences progress is monitored in terms of success and therefore in terms of the elimination of errors. In theology this process of justifiability by experimental or empirical falsification is obviously not possible. I am, however, convinced that within a critical realist paradigm, theological theories can be shown to be problem-solving and progressive, but then in terms of hermeneutical, philosophy of science, historical, literary and linguistic criteria.

In this case **both** the constructs of science and theology give us our only access to the different domains of reality we are groping for and as such are always provisional and hypothetical. The real problem therefore is not so much **falsification by facts** or **going against facts**, but:

- the fact that scientific and theological thought can both only function within the framework of a very definite theoretical commitment to specific models of rationality, and
- that theological thought is apparently always preceded by a very definite ultimate (religious) commitment.

3.3 Scientific thought delights in dissension; faith is based on consensus (Theissen 1984: 4–8)

- this ‘contradiction’ is now rephrased by Theissen (1984: 30ff) to read:

Science which delights in dissent and faith which depends on consensus are different forms of the openness of our spiritual life to mutations

Again, this might be true, but the problem surrounding the credibility of theological thought from a philosophy of science point of view, has still not been addressed at all.

Indeed **faith as such**, as lived by believers in the church, tends towards consensus. Theissen is also correct in pointing out that the early church developed three social controls to protect this consensus: the **canon**, the *regula fidei* as a confession to what was seen as the essence of Christian faith, and the **episcopacy**. This indeed in a sense obligates the church and its believers to tradition (Theissen 1984: 33), to consensus (1984: 34) and to authority (1984: 45).

None of these, however, can be said to be true of an epistemologically (and thus scientifically) credible, constructive theology where the weight of rational argument is as important as in any scientific process of theorizing. Furthermore, the classical text of the Christian tradition not so much **controls** consensus in an authoritarian way but should hermeneutically function within a critical realist problem-solving model where text and tradition are to be constantly reinterpreted (cf Van Huyssteen 1987). As far as church office and the authority that goes with it are concerned: This to my mind may function in a meaningful way in the church itself, but is as such totally irrelevant for a constructive theology.

I therefore think that Theissen not only obscures the very valid distinction between **faith** and **statements about faith**, but also that between **community faith** (1984: 4) and **theology as such**. This obviously can leave no room for a trans-confessional, much broader conceptualized constructive theology but can only lead to a very restricted form of ‘church’ or ‘confessional theology’.

To therefore contrast the originality of science with community faith’s fidelity to tradition, can within this context never be accepted. In theological thought it can be its originality and creative construction (within a valid and thought-through realist paradigm), that forms the essence of theological theorizing (Van Huyssteen 1986: 206ff). What is

more, Thomas S Kuhn (1970a: 180f; 1970b: 253) convincingly showed that also scientific communities – in periods of ‘normal science’ – display an enormous fidelity to tradition.

Theissen’s argument can now be summed up as follows:

- Just as in biological evolution life has developed through **mutation** and **selection** towards constantly new forms of **adaptation** to reality, so too culture has developed different forms of adapting to the basic conditions of reality: and of these **science**, **art** and **religion** are the most important. And only when these complement one another do they do justice to the richness of reality. Each of these should in fact be seen as an independent way of coming to grips with reality.
- In this process of coming to grips with reality, forms can be established which are analogous to those in the processes of mutation and selection. In this sense features common to knowledge and faith can be established in the light of the basic categories of the theory of evolution, namely adaptation, selection and mutation (1984: 8f).
- Theissen therefore assumes a continuity between biological and cultural evolution (which leads to the analogies between them) but states: cultural evolution is not simply the continuation of biological evolution but a higher form of it. In both areas development presupposes (i) the appearance of variation; (ii) a selection from the variants; and (iii) their preservation. The paradigm of evolution therefore reveals two phases of evolution, biological and cultural (i.e. science, art and religion), which are as such different forms of coming to grips with reality. And it is precisely Theissen’s consistent referring to an **adaptation to reality** that to me reveals his implicit realist position.
- Theissen eventually proceeds and views **knowledge** and **faith** as two different patterns of behaviour in cultural evolution (1984: 18ff). For this the analogies between biological and cultural evolution are obviously very important:
 - For Theissen every cultural innovation can be seen as a kind of ‘**mutation**’: while it takes over traditional elements by combining them in a new way, it also creates something that has not been there before. This may be any new theory or innovative event in art or ethics, et cetera. Theissen thus uses the concept ‘mutation’ **metaphorically**, leaving behind its literal reference to genetic changes. In cultural evolution, cultural innovations therefore per-

form the same function that mutations do in biological evolution by providing a choice of variants (Theissen 1984: 178). These mutations, as cultural innovations, are therefore **creative responses** to a particular problem and can happen in language, writing and imagery (Theissen 1984: 11).

- Implied in the metaphor ‘mutation’ is that of ‘**selection**’: Human beings select the most effective cultural patterns of behaviour by learning processes, that is by trial-and-error, imaginative learning and problem-solving (Theissen 1984: 11f). This process of cultural selection then leads to an adaptation to a reality ‘**which extends beyond humanity**’ (Theissen 1984: 15).
- In biological evolution, mutation and selection lead to a development towards increasingly differentiated organisms only if improvements which have once been achieved are not lost again, and are protected from chance deteriorations. In nature of course there are remarkable processes which ensure the reduplication of forms of life (Theissen 1984: 15). For Theissen it is obvious that cultural evolution works with analogous processes: It substitutes **tradition** for genetic transmission, **cultural identity for separation**, improbable experiences (Theissen 1984: 15ff). Tradition in this sense is therefore seen as the transference of non-genetic information from one generation to the next.

4. CONCLUDING STATEMENTS

4.1 On critical realism in theology

Theissen’s remark that ‘the only reason for identifying oneself with a particular religious tradition is the conviction that it does in fact present an appropriate solution to religious problems’ (1979: 77) is not only revealing but also very relevant for the problem of credibility in theological thought.

In an attempt to interpret the epistemological implications of this statement for theological thought, I would like to claim that not Theissen’s critical rationalist attempt at an evolutionary epistemology but **critical realism** offers us what Theissen is rightly searching for, that is, a credible integration of knowledge and faith. I have also (already) tried to indicate that this position is in fact implied in Theissen’s arguments.

When Theissen (1984: 19) therefore states that knowledge should be

seen as the adaptation of cognitive structures to reality, this is already an outspoken realist viewpoint. And faith is not a structure which has become obsolete, but in fact struggles at the limits of human consciousness (Theissen 1984: 17). As such faith can also be seen as an anticipation of future possibilities of evolution, which have not yet reached the level of our consciousness. While Theissen then proceeds and views knowledge and faith as two different patterns of behaviour in cultural evolution (1984: 18ff), I would add that not only scientific knowledge but indeed also theological reflection could be viewed as 'forms of adaptation' to reality. Both in science and theology our constructs and theories give us some provisional insight into the different domains of the reality of that which is being studied. In this sense the critical realist in theology is convinced that there is a 'fit' (McMullin 1984: 35; 1982: 32), however provisional, between the structure of his theories and the structure of the reality he is groping for: an assurance that does not come from a comparison between them – he has no independent access to this reality in terms of a naive realist correspondence theory – but an assurance that comes from the inner logic of the realist argumen itself. In this way the realist argument shows that our only access to the reality on which the scientist – and thus also the theologian – focus, is **through the scientific concept**.

In this sense I could agree with Theissen that through scientific – and theological – knowledge are we enabled to have the 'experiences of resonance' which he so often discusses in both his books. Precisely through what we **provisionally know** can we have intimations of a central reality which determines and conditions everything (Theissen 1984: 19).

When therefore regarded from a much more credible epistemological critical realist basis, Theissen (1984: 20) could indeed with good reasons state:

Thus evolutionary epistemology confirms a first basic experience of any religion, namely that behind the familiar human world a mysterious other world opens up which appears only indirectly, brokenly and symbolically in the world that we experience and interpret.

4.2 On the function of an ultimate religious commitment in theological reflection

When Theissen (1984: 26) sees faith and knowledge as attempts to understand the whole of life as a response to an ultimate reality, it

becomes very obvious that his thought requires an epistemological model of rationality that would be able to accommodate an ultimate faith commitment. Within the Popperian or critical rationalist paradigm this could never be possible, whereas critical realism in theology opens up a way to acknowledge the fundamental role played by commitment – both theoretical and ultimate religious commitments – in scientific and theological reflection.

Theissen's decision for Christian faith forms a consistent theme in his own thought, and statements like the following would indeed require a definite account-rendering of his own commitment to Christianity:

But what is that mysterious ultimate reality towards which our organic, intellectual and religious structures develop attempts at adaptation? Religious tradition knows only one appropriate term for it: God (1984: 25). Compared with this name, all other terms like 'central reality' and 'ultimate reality' are only counsels of desperation (1984: 30).

4.3 On the role of metaphors in theological reflection

Theissen (1984: 87) acknowledges that images of God from evolutionary theory might show us a way of overcoming the hermeneutical conflict between New Testament Christology and modern consciousness. He also correctly states that the use of metaphors leads us into the obscure intermediate area between poetry and reality, and between creative imagination and reality. Metaphors therefore transcend boundaries which are set by strict reflection and are therefore indispensable for theological reflection (1984: 87).

This of course – as we saw earlier – is true of all scientific thought, and that is why the criterion of fertility is directly linked to the use of models and metaphors in a critical realist paradigm (cf McMullin 1984: 30ff). This is also why it should be obvious that new metaphors in theology should be creatively developed with material from the experience of our time.

The way in which metaphors are thus linked to the very centre of scientific thought is of the utmost importance, not only for understanding scientific realism, but also for evaluating critical realism in theology. The direct implication of this important fact is that the language of the scientist is not so direct and 'literal' as it was once thought to be. Not only are even the most literal-sounding terms 'theory-laden', but since

they are always to a certain extent provisional, they must be regarded as metaphoric (cf McMullin 1982: 37). To regard certain concepts as metaphorical is not to say that they are not precise, or that they are always ambiguous. On the contrary, McMullin (1982: 37) states it well: Metaphors are not normally ambiguous, yet at crucial moments in the continuing development of science, they do generate ambiguity, just the sort of fruitful ambiguity that permits a theory to be extended, reshaped, rethought et cetera.

Therefore:

The metaphor is helping to illuminate something that is not well understood in advance, perhaps, some aspect of human life that we find genuinely puzzling or frightening or mysterious. The manner in which such metaphors work is by tentative suggestion (McMullin 1984: 31).

The role of metaphor in scientific thought is also the scientific realist's answer to Kuhn's well-known thesis of the **incommensurability** between paradigms, and therefore often also between theories, in science. As regards the problem of **continuity** when the scientist moves from a rejected theory to a new theory, what provides the continuity is the **underlying metaphor or metaphors of successive theories**. Thus one may find that in scientific thought one aspect of an original or older theory may eventually be dropped, while others are thought through again and creatively retained. Even in a total 'paradigm switch' it will be only the metaphor(s) that constitute the continuity.

In our understanding of the world – also our scientific and theological understanding – metaphors therefore play a significant if not central role. In fact the **explanatory power or success** of a theory depends on the effective metaphors it can call upon. For this reason I would call the epistemological model that scientific realism offers us, a **relational model**. The scientist as **subject**, the metaphor-maker (McMullin 1982: 37) is now recognized as an **inseparable part of the scientific endeavour**. Of this McMullin (1982: 37) says:

Yet this in no way lessens the **realism** of science, the thrust of the scientist to grasp the 'irreducible X' before him. It is, indeed, precisely the quality of a scientific theory as fruitful metaphor, as lending itself to further development, that most comments it as **good science**.

For the critical realist the theoretical language of theological reflection is

therefore theoretical explanation of a special sort. It is metaphorical, and thus open-ended and ever capable of further development. The precise metaphorical basis of all scientific language gives this language resources of suggestion that are the most immediate testimony of its ontological worth.

Against this background it should now be clear why scientific realism has developed into one of the most important positions in the current philosophy of science debate: It not only highlights the role of metaphorical reference in scientific theory-formation while honouring the provisionality and socio-historical nature of all knowledge, but it also enables us to retain the ideals of truth, objectivity, rationality and scientific progress in an exciting and re-interpreted way. It is therefore not at all surprising that the realist challenge has at present been taken on in the humanities, especially the social sciences and also in theology. I am fully convinced that, because of the important relational analysis and the accompanying interpretative and thus hermeneutical dimension of all knowledge in the realist paradigm, this venture can in no valid way be seen as a return to the positivist ideal of the uniformity of all scientific knowledge. On the contrary: it opens up creative and exciting possibilities – also and especially for theology.

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