

히브리어 동사 כָּסַח의 hi. 형은 '보호하다,' '가리다'를 뜻한다(비교, 출 20:21, 시 5:12, 91:4). 그리고 다락방에서 변을 보는 관습이 있는지 모르겠다. 또 사울의 옷이 잘리는 상황이 변을 보는 상태로 보는 것은 어색하다. NIV와 NRSV는 용변을 보는 것과 쉬는 것을 다 포함하는 'to relieve himself'로 번역했다. 그러나 이 표현을 뒤를 보는 것에만 제한할 수 없을 것이다.

2. 푸른 흙 - 새 활줄 (삿 16:7): תָּרִים לַחִים 은 '새 노끈' 정도로 번역할 수 있는 말인데 '쥬'이란 말은 어색하다.
3. 관리 - 환관(삼상 8:15의 각주): סָרִסָּ 에 환관이란 뜻이 있지만 여기서는 문맥상 그런 각주의 설명을 필요치 않다. 율법은 이스라엘에 그런 신체적 결함이 있는 자는 백성의 회중에서 제외된다고 했는데(신 23:1) 이 본문의 설명으로 환관이란 말을 붙일 필요가 없다. 왕상 22:9의 סָרִסָּ 도 '내시'나 '환관'으로 번역해서는 안될 것이다.
4. 집 - 왕조 (대상 17:10, 24): מַבְּתַח 를 '왕조'로 번역하는 것은 해석이다.
5. 평강의 사람 - 온순한 사람(대상 22:9): אִישׁ מְנוּחָה 에 대한 번역으로 '온순한' 이란 의미는 문맥에 잘 맞지 않는다.

### 7. 원문을 따른 것

1. 언약을 세우다 - 맺다 (수 24:25등) וַיִּכְרֹת בְרִית
2. '주의 은혜로'(삼하 7:29) 말을 뺀 것은 좋다: וּמִבְּרִכְתְּךָ בְּרִךְ בֵּית עַבְדְּךָ
3. 처첩(들의 생명) - 처첩과 비빈(삼하 19:5): וְנָפֶשׁ נְשִׂיךָ וְנָפֶשׁ פְּלוֹנְשִׁיךָ
4. 작정 - 지명(왕상 1:35): 동사 צָוָה 는 '작정' 보다는 '명령', '임명'이므로 개역의 표현이 가깝다.
5. 여호와와 손이 엘리사 위에 - 엘리사를 감동(왕하 3:15): וְיָד־יְהוָה עליו 를 문적으로 번역했다.
6. 율례 - 관습(왕하 17:19): חֻקֹּת 에 대한 개역성경의 번역인 '관습'은 약한 번역인데 '율례'로 번역한 것은 잘 한 것이다.
7. 음악에 익숙한 - 악기에 익숙한 (대하 34:12): מִבֵּין בְּכֵל־שִׁיר
8. 성품 - 목숨 (대하 34:31): בְּכֵל־נַפְשׁוֹ

위에서 살펴본대로 개역개정판의 여호수아에서 역대하까지 부분은 개역성경에 기초해서, 그 문체도 그대로 따라가면서 현대인이 비교적 잘 이해할 수 있는 말로 대폭 수정했다. 약간의 문제점이 있기는 하지만 장점을 훨씬 많이 지닌 개정판으로 판단이 되므로 현재 사용중인 개역성경과 병행해서 사용하면 교회에 많은 도움이 될 것이다.

## THE INTELLECTUAL CONTEXT OF SCHOLARSHIP AT THE BEGINNING OF THE 21<sup>ST</sup> CENTURY

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### Abstract

Changes in the world affect scholarship in various ways, directly and indirectly. From time to time, scholars need to reflect on the changes affecting their trade. The beginning of a new millennium seems an opportune point in time to reflect on the changes that have been taking place during the last few decades in the intellectual climate of scholarship. The intellectual climate, i.e. the socio-epistemological landscape, determines the nature of scholarship at a given point in time. After conceptualizing the term 'intellectual climate', the discussion in this article proceeds to show that modernist rationalism is still having effect on scholarship today, but that postmodernism and several other relatively recent approaches to science have tended to erode modernism from within. These alternatives are

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described, typified and briefly evaluated in terms of their value in an approach to science that wishes to steer a course between modernism and postmodernism.

## 1. Introduction and aim of the article

The world around us is constantly changing, though not mechanically and entirely of its own accord. The actions of its inhabitants, notably human beings, impact on the nature and extent of the changes. Our interactions with each other, with created reality 'out there', with God (or whom we deem to be the divine force in life), as well as with ourselves, impact on reality. These interactions create a dynamic 'cultural spiral': as caretakers of creation we have been charged with the task of governing and developing the earth. How we perform this task determines the nature of the culturo-historical changes taking place. The changes in turn affect our existence.

From time to time, the 'cultural spiral' culminates in major turning points in culture and history. Since the 1960's, we have been witnessing the unfolding of such a significant turning point in the socio-epistemological landscape, one that has been having important implications for the way scholars see the world and think about scholarship.

Human beings have been endowed with the innate ability of responding to stimuli. Not only was the world made for man; man was also made for this world. Man responds, inter alia, in terms of scholarship. Science is man's specialized procedure or set of tools for attempting to understand reality, i.e. the world in all its diversity. In terms of the 'cultural spiral', science is not only a process of understanding the structure and the orderliness of reality, it is also a process that leads to changes in the world and resultantly in our view of the world. The changes brought about on the strength of our scientific command of the world should ideally lead to improvement of the world. Man's response to his task is therefore a cultural one, contributing towards making this world a more comfortable home for all its inhabitants.

Because of the equipment man has been endowed with, he has succeeded from the beginning to induce growth, to discover and unfold all the riches which have been placed in creation. Man has thus been enriching the world with his cultural achievements (Seerveld, 1980: 25). His human limitations and broken nature (ascribed by some to the fall into sin) have, however, largely frustrated his normative response to the cultural mandate. His efforts at executing the cultural mandate have therefore been no 'triumphal procession' (Geertsema, 1995:28).

To what degree a scholar manages in meeting the challenges of the cultural mandate depends on her wisdom, perspective and insight. For instance, many scholars feel today, more than ever, that they have finally and truly come of age (Plantinga, 1995:29), and can therefore autonomously determine how the mandate should be met. The autonomy of the

individual scholar implies, inter alia, that knowledge and its production (knowing) are highly personal, idiosyncratic matters. Such notions have found expression in one form or another in the socio-epistemological landscape that has been taking shape during the last four or five decades. However, their roots can be traced much further back in history.

The aim of this article is firstly to conceptualize the term 'cultural climate or context', and then to describe some of the more salient features of the intellectual climate that has been unfolding during the second half of the previous century and the first decade of the 21<sup>st</sup>. The impact of the changing intellectual environment on scholarship is subsequently assessed. Scientists plying their trade at the beginning of the 21st century need to take cognizance of the fact that the socio-epistemological landscape has substantially changed during the last four to five decades. The importance of doing so will emerge as the picture of the prevailing 'cultural climate' unfolds in the following sections.

## 2. The term 'intellectual climate'

'Intellectual climate' refers to all those meta-theoretical assumptions that are being accepted by scientists as valid within a particular discipline at a particular juncture, in this case the beginning of a new millennium. In the so-called human sciences, these would typically include assumptions about human beings, in other words anthropological approaches. It also includes other more discipline-specific assumptions and presuppositions on the nature of society, development, history, and so forth, says Mouton (1996: 54-57). The distinctive feature of these assumptions is that in science, they operate as postulates or presuppositions. This means that they are not part of the testable propositions and hypotheses of research. They actually precede such propositions, and in that sense have the status of pre-theoretical assumptions. As such, they play a decisive role in research.

Research or scientific inquiry is a social practice. This means that the world of science is part of the social world: researchers are social beings; they follow certain rules; their activities are conducted within more or less organized and institutionalized frameworks, which place certain constraints on what is acceptable (Mouton, 1996: 41). The social dimension of science or research should not be limited to its tangible or material elements; there are also intangible and non-material resources that are part and parcel of scientific networks and institutions (such as scholarly journals, research organizations, data bases and - of course - the intellectual climate). Also social rules and conventions regulate social life.

This is true also of science as a social system. Because scientists seek recognition they tend to accept not only the goals but also the rules, sometimes tacit, of the research community. This system of social control is institutionalized in many forms, for instance in review systems, rules of promotion, rules of membership, and rules of dissemination (Mouton, 1996: 42).

As Klapwijk (1995: 206 et seq.) has pointed out, scientists find themselves inevitably being

dragged along by the socio-scientific traditions and conventions, i.e. by the intellectual climate of their time. No scientist is able to isolate herself from the way concepts are formed and theories constructed in the particular paradigms in which she finds herself, as Kuhn has illustrated. A scientist also cannot escape the language and terminology of the particular period, since that is the ontological medium by means of which the prevailing tradition of thinking and understanding comes to a particular scientist (Gadamer). The work of a scientist is thus always somehow contextualized by philosophical traditions and conventions of this kind, in other words by the prevailing intellectual climate.

The intellectual climate at the beginning of the 21<sup>st</sup> century is characterized by the persistent presence of modernism. Modernism has, however, been significantly augmented by the rise of postmodernism and associated approaches, as will be outlined below.

### 3. The prevailing intellectual climate

#### 3.1 Modernism (rationalism) seems to be alive and well

It has often been said that we live in a postmodern era, and that modernism can therefore be regarded as a thing of the past. At the beginning of the third millennium A D, scholars, however, still attach a high priority to reflexive and reflective engagement with ideas, and to the illumination of the mind to which such engagement can contribute. This has always been a feature of Western scientific tradition, founded on the idea of the importance of theoretical conceptualization. Critical reflection and a skeptical attitude with regards to convention are heritages from the Enlightenment. It is still today assumed that the scientific mind is one that constantly searches, questions and judges; it questions everything, especially untested claims presented on the basis of authority. Because of persistent Enlightenment influence, scholars still today attach priority to the ideal of personal independence and integrity, and on the conscious use of reason and judgment (Rossouw, 2000:13). This is one of the reasons for the high esteem that empiricism and positivism still enjoy today, in spite of the rise of the interpretative approaches to reality (Labaree, 1998: 5) which will be discussed below.

Many social scientists are still self-declared adherents of a scientific approach to their disciplines. They depart from the assumption that knowledge should be generalizable and universally valid. The scientist should assume a 'view from nowhere' (O' Loughlin, 1999: 49). Objective findings should be the aim of science, and objectivity and neutrality be regarded as the most appropriate criteria for acceptable research. Knowledge should be decontextualized, in other words it should have very little to do with power relations in communities or with human interest. Science is idealized on the grounds of its methods of data collection and its confidence in scientifically validated instruments (O' Loughlin, 1999: 49).

#### 3.2 The 'demise' of (logical) positivism and radical empiricism?

Positivism, as a form of modernist thinking, is based on the idea that science can be valuable in itself, and can lead the scientist through the maze of metaphysics. Science can be divorced from personal values, metaphysical assumptions and interests, and can concentrate on discovering pure fact. Positivism has thus been offered as the only way to true knowledge (Moore, 1982: 70). The so-called softer sciences (e.g. the human and social sciences) still today emulate the positivistic approach in order to ensure greater validity and credibility to these sciences because of its apparent successes in the field of the natural sciences. This has resulted in the formulation of psychological and educational 'laws' as reflections of 'scientific truth' (Moore, 1982: 72).

Since the 1960s, however, the scientific dichotomism (i.e. of fact and value) of positivism has increasingly been questioned. As early as 1985 Howe (1985: 10) spoke of the 'repudiation of logical positivism', with reference to the contributions of Quine, Kuhn, Toulmin, Scriven and Feyerabend. Three years before that, Moore (1982: 70) reported that positivism had been rejected because it had been discovered to be also an approach to science founded on assumptions and prejudices, and untestable pre-scientific conclusions.

Philosophers of science realized that positivistic science was founded on assumptions and interpretations, that it did not always concentrate on facts only, that it was based on a belief system, that theory affected data and findings, that unprovable and untestable assumptions influenced findings, that the scientist could not divorce himself from the processes of science, and so forth (Moore, 1982: 79 et seq.) Philosophers of science like Kuhn, Lakatos and Feyerabend questioned the positivist assumptions that science was autonomous, self-reliant and self-sufficient. They argued convincingly that researchers could not be impartial, objective and neutral in the processes of science. For instance, many positivists would regard the phenomenon 'community' atomistically as constantly conjoined events that are somehow coherent and relate to each other. This atomistic approach to communal structures, i.e. a set of assumptions with regard to societal structures, has misled them to resort to statistics and mathematical models (Willmot, 1999: 257).

However, positivists frequently do not understand such criticism of the foundations of their research, mainly because they do not regard foundational aspects (i.e. pre-theoretical and theoretical convictions and assumptions) as part of the domain of science in the first place.

Botha (1996: 333), a critic of positivism, said that 'scientists are trained in traditions and schools of thought in which specific theories, paradigms or research traditions are accepted as authoritative on the basis of their supposed or proven potential to explain the regularities observed in the phenomena in the field of study. The personal philosophy and worldview that is unique to the scientist as a human being within his own culture and religious tradition is an inextricable element of this frame of reference.' Middleton and Walsh (1995: 32-33) concurred: rationality cannot any more be regarded as a matter of universal truth. The naive self-confident realism of modernism is something of the past; reality is mediated

to a particular individual through her own perspective. In support of this view, they point to postmodernists who aver that individuals regard reality as a mere construct of the human mind and spirit. Reality is not only a human or individualist construct; it is also a social construct. It is ultimately seen as a reconstruction of experiences that direct life. That which human beings previously supposed to be real, 'out there', is in fact 'cultural', made by man himself and not given.

Critics of positivism also argued that what could be known is hardly as consistent and stable as positivist scientists assumed. People themselves are active and creative participants in their particular environments, and thus bring changes to otherwise stable environments.

Objectivity in science, founded on the notion of value-neutrality in the relationship between knower and the knowable, was also taken to task. It was argued that the processes of data acquisition and gathering were by no means neutral or disinterested. The same applied for the assumption that the prediction value of findings could be guaranteed as long as the scientist himself remained neutral and uninvolved. On the basis of all such arguments and evidence, O' Loughlin (1999: 49) concluded that scientism (also in positivist forms) 'is a basically incoherent constellation of erroneous views, e.g. that science *in general* is value-neutral and constitutes some kind of supreme good.'

There will, of course, always be place for a more or less positivistic approach to scientific problems, especially in cases of descriptive 'facts and figures' research. Many scientists therefore still adhere to a positivistic epistemology, although they do not always seem to take account of its concomitant actualistic ontology (Willmott, 1999: 355). On the whole, however, the soundness of positivistic approaches should be doubted, mainly because they tend to abstract the object of investigation from its context, and to present findings in the form of quantitative results that can be computed, compared and generalized to whole populations. The value of generalizations should be doubted, says Callagher (1997: 135-137), mainly because of the difficulty of interpreting them in a particular context.

### 3.3 The arrival on the scene of postmodernism

During the past four or five decades, modernist rationalism has increasingly been undermined from the inside. Dissenting groups have been voicing their discomfort with some of the basic tenets of a modernist philosophy of science. This has brought about the following situation:

- Modernist rationalism remains a force to be reckoned with in the context of scholarship, since it has the Western intellectual tradition of more than two millennia behind it. It has always been based on the notion of the importance of theoretical conceptualization (Rossouw, 2000: 12-13). Since the task of science has traditionally been conceptualized as the formulation of theoretical knowledge, many scientists still maintain that human reason plays the key role in science. In modernist rationalism it has always been revered as the 'great light' (Mekkes, 1961: 62) that can enlighten the totality of human existence.

- One breakaway group - postmodernism - has become so powerful in the course of time that it today constitutes a substantial alternative way of thinking about science. However, it clearly needs to steer a course somewhat parallel to that of modernist rationalism since it is dependent on the intellectual heritage of modernist rationalism for its existence.
- There are also other breakaways from modernism, in the form of voice epistemologies, standpoint epistemologies and other dissenting ontologies and epistemologies. On the whole, they seem more comfortable in the company of postmodernism than in that of modernism.

Postmodernism should be regarded as only one facet of the changes that have taken effect during the last few decades in the structural conditions of intellectual work (although their roots can be traced back to the philosophical irrationalism of previous centuries).

The new approaches changed the way intellectuals, including scholars, approach reality, see the task of science and formulate their questions. The changes are most observable in the fields of epistemology and sociology (Rossouw, 2000: 20-21). According to the postmodern interpretation of reality, there can be no reference any more to all-embracing intellectual systems or missions on the basis of which society can be steered on any specific course. No general criteria are available in terms of which localized practices or traditions can be evaluated. Scientists are confronted with the task of promoting relativism and pluralism. They are expected to abandon all notions of final and absolute judgments, claims and findings, and to embrace the co-existence of a plurality of frames of reference, each with its own understanding and criteria of rationality.

The social role of the scientist himself is caught up in an evolutionary process in which new modalities and nuances appear in the relationship between his intellectual activities and social involvement, between thought and conscience, between idea and responsibility, between retreat and involvement (Rossouw, 2000: 23-24).

For the purpose of sketching the intellectual framework of scholarship in our time, the following 'features' of a postmodern intellectual stance should be highlighted.

- In the first instance, postmodernists tend to reject the distinction that modernists usually make between subject and object in research. They also question the 'clinically correct' insistence of modernism on boundaries between disciplines, as well as the rigorous way modernists prescribe scientific procedures (Paola, 2000: 9). Instead, they prefer idiosyncratic approaches to scientific investigation.
- Postmodernists also tend to question the value of grand meta-narrative theories or exhaustive taxonomies in attempts to order and contain knowledge (St Pierre, 2000: 26), the so-called taken for granted structures of intelligibility (Pillow, 2000: 2), which they regard as mere linguistic games or ideological discourses where one cannot be evaluated against the norms of others.
- They also reject all universalistic and foundational theories. The ideal of unifying theories is rejected on the grounds that they are 'terrorist' and totalitarian. Discontinuity has become more acceptable.

- In their opinion, no single approach to science can be appropriate for all forms of science.
- They acknowledge the presence of the various voices around us to be listened to in science and research. These voices include those that have been silenced up to now because of the application of deductive, patriarchal, colonialist and ethnocentric models of rationality and knowledge.
- They tend to lay bare (deconstruct) the foundations of the thought categories with which individual scientists operate.
- Postmodern science is characterized by a relativistic view of scientific truth, validity and reliability. No universal standard for truth is recognized (St Pierre, 2000: 25, 26).
- Postmodernists acknowledge the existence of a multiplicity of historically specific forms of reason, and therefore favour case-studies and discourse analysis, language games, narratives and deconstruction as scientific methods. They are reluctant to generalize findings.
- Ludic (playful) forms of postmodernism understand the playful nature of science, i.e. the synthesis of previously disparate and contradictory aspects of reality, the role of individualistic conceptions of what science should be about, unique conceptions of methods that can be applied.
- Postmodernists question the thesis that theoretical knowledge should be regarded as the highest form of knowledge to be aspired for in science, as if it were the supreme achievement of human reason. By the same token they reject the notion that such theoretical knowledge should transcend the particularity of praxis with its preoccupation with the contingent, the concrete and present aspects of reality (O' Loughlin, 1999: 56).
- Postmodernists not only propagate the breakdown of the boundaries between disciplines and various forms of knowledge, but also inaugurate new forms of pluralism in which no single method or form of science can form a paradigmatic hegemony. Postmodernism promotes historical understanding of difference in knowledge, knowledge systems and operational knowledge systems (Peters, 2000: 18).

Some postmodernists, like Pillow (2000:21), concede that postmodernists might have created a new meta-narrative of their own, containing the elements mentioned above. However, they feel uneasy about seeing postmodernism as a kind of new master narrative (cf. also St Pierre, 2000: 26). Like all scientists, postmodernists need to reflect on the implications of their stance for science. Such reflection leads them to the conclusion that postmodern science should not contrive to create a new meta-narrative, but should illustrate in just how many different ways findings can be (un)intelligible, (im)possible, (il)logical, (un)knowable and final / tentative. This does not mean that postmodernism has failed in achieving its objectives; highlighting these facets of scholarship is exactly the task of postmodernism! (Pillow, 2000: 22).

### 3.4 The emergence of other research epistemologies

It is of course not only postmodernism which inspires scientists to inquire about alternative approaches to science. O' Loughlin (1999), for instance, mentions two other

alternatives.

- A standpoint epistemology is based on the idea that communities are stratified in terms of gender, race, ethnicity, sexual preference, social class, disability, location, and many other criteria, and that this causes a particular community structure. A scientist's social position enables him to know that structure, but also impedes his efforts at knowing in many ways. Power relations in a particular community can be to the advantage of a scientist, but can also disable her from knowing and understanding fully and correctly.
- A voice epistemology, on the other hand, listens to the voices of those that have previously been silenced and marginalized. These voices have been silenced because what they were saying did not fit in well with science; they were in fact busy coloring in outside of the lines of science at the time (Borman, Kromrey, Hines & Hogarty, 2000: 1). These voices are today used as the conceptual tools of science. Voice epistemology represents the vocal turn in science: it listens to the previously silenced voices, such as those of women (feminism), indigenous minority groups (O' Loughlin, 1999: 55), the so-called First Nations (Peters, 2000), prostitutes, black students and slaves (Mouw & Griffioen, 1993: 9), homosexuals, aborigines, Afro-Americans (Le Grange, 2000: 114 et seq.). When all these different voices started raising their demands, the result was a bewildering cacophony (Middleton & Walsh, 1995: 1-3).

These 'new' epistemologies have placed the concept of 'knowledge' in a totally new perspective. Knowledge is seen in a different light than during the period of domination by the scientific-positivistic image of science. There is today a variety of different theoretical approaches to knowledge, many of which are directly or indirectly related to postmodernism, such as constructivism, social constructivism, radical constructivism, critical theory, social knowledge and learning, cognitive apprenticeship, situated cognition, hermeneutics, situated cognition, distributed cognition, practice communities, hermeneutics, to mention a few of the most important (cf. Danner, 1997:3; Putnam & Borko, 2000; Callagher, 2000: 133-134).

These theories all share the so-called situative perspective with regards to knowledge and the processes of knowledge acquisition. Despite the fact that they have been presented as 'new', they have their roots as far back as the 19<sup>th</sup> century (Putnam & Borko, 2000: 5). Scientists are today increasingly relinquishing traditional approaches to science (i.e. positivism and empiricism - scientism) in favor of non-naturalistic, more ideological approaches, such as hermeneutics, interpretive, phenomenological and critical approaches. They do this in order to be able to explain and interpret more adequately the behavior of people within a certain culture and timeframe (Paola, 2000: 89).

Some philosophers of science and also scientists today tend to argue that research need not necessarily be 'scientific' (i.e. in an empiricist-positivistic sense) to be acceptable (Mayer, 2000: 38). All forms of research can be regarded as 'scientific', since they all somehow lead to the self-correcting progress of knowledge and theory. After all, says Hart (in: Nielsen & Hart, 1990: 164), there is a difference between 'rationalism' and 'being reasonable'. Being reasonable entails being prepared to present reasons for conceptual claims, to provide proof for reasoned statements, and to make coherent propositional claims.

Reasonableness is a pervasive good in human life. Also science or theory forming as the institutionalized or professional form of accurate belief formation is a good thing in social life. Conceptions born out of everyday experience are in principle not less reliable than those of science. The most efficient, professionally developed and accountable procedures for belief formation are, however, embodied in science.

Because of the 'new' theories, there is renewed interest in knowledge and knowledge acquisition. The idea that knowledge is one-dimensional, simplistic, certain and constant has been discarded. These theories also emphasize the temporality, the non-generalizability and the uncertainty of knowledge (Alexander, 2000: 29, 32; Brown, 2000: 7). They reveal a greater understanding of the importance and relevance of community, culture and the context of knowledge for science and scientific endeavour than before (Labaree, 1998: 5).

Situative theorists prefer to see knowledge and cognition (the process of knowing) as situated. Knowledge is not seen any more as independent of context and intention. In sharp contrast with positivism, where the knowing individual was assumed to be the basic unit in the process of knowing, the new approach emphasizes the role of the interactive (social) systems of which individuals form part, in which they participate and interact with each other as well as with material and representational systems (Putnam & Borko, 2000: 4).

Situative theories regard knowledge also as distributed and shared. Knowledge does not belong to individuals; it is distributed among many individuals and shared by all those involved (Putnam & Borko, 2000: 4). In terms of these theories, knowledge is also seen as social. While expressing their dissatisfaction with openly individualistic views of science, knowledge and knowledge acquisition, epistemologists today emphasize that the role of other people goes further than the mere stimulation of and encouragement to individuals in their efforts to construct knowledge (Putnam & Borko, 2000: 5).

#### 4. Discussion

In Wolterstorff's (1995) opinion the intellectual climate of the present day is characterized by the insight that the 'great vision of Western thought' is in the process of dying. This 'great vision' was the blend of liberal political theory with foundational epistemology. All the old problems that needed to be addressed by science are still present; however, the answers to the problems advanced by the great vision are not acceptable any more to present day people and communities. Western liberalism has become merely one of many possible sets of convictions. What we are today seeing, says Wolterstorff (1995: 210-211), is the vengeance of the particular in the form of rising nationalism, aggressive religious fundamentalism and cultivated consumerism. Reason, a generic human capacity, is not any more accepted as the only guide for human deeds and actions. In Plantinga's (1995:31) opinion, (logical) positivism has indeed tended to disappear, but has been replaced by a twin-headed monster. On the one hand, positivism in the form of a 'perennial naturalism' still has its adherents today. The other 'head' of the monster is creative

anti-realism or constructivism, which teaches that man himself is responsible for the fundamental nature and structure of reality.

The current intellectual climate has, as a result of this, become a permissive one (Brezinka, 1999: 156), one that tends to advance a relativist view of science (Mayer, 2000: 38-39). It promotes various kinds of subjective views on methodological pluralism, tolerance of methodological questions, various thought models and paradigms, and even allows for anarchistic epistemology. 'Scientific' findings that reflect ignorance and intellectual laziness are sometimes found acceptable.

Not only has the intellectual climate changed in terms of an ontological and epistemological shift. A social, economic, and geo-political shift has also taken place. Reality, in terms of ontology, epistemology and norms, is not what it used to be in modernity (Middleton & Walsh, 1995: 24-29). Modern day man seems to increasingly understand that Western forms of scientific work never have been objectively positioned with regards to world history. She also seems to have discovered that non-Western forms of science have never been evaluated in terms of Western forms. On the basis of these discoveries post-colonialist scientists, philosophers of science, feminist post-constructivists and natural science educators have been calling for the democratization of science with the purpose of decentring Western forms of science, in the process demarginalizing non-Western forms (Le Grange, 2000: 115).

The new approaches to science are furthermore clearly localized (replacing the universalised approach of modernism: i.e. the ideal to produce universally valid and objective knowledge). The new approaches maintain that science is always situated within a set of values. It allows for different knowledge spaces instead of only one global one. Knowledge is seen as a value-determined historically and individually situated commodity. There is today much greater understanding of aspects of science such as the social origins of knowledge, traditions, meanings, practices, institutions, technologies, customs and habits, as well as the results of scientific work (Le Grange, 2000: 115-117). In postmodernism and the other alternative epistemologies, the 'cultural fingerprints' of man on science are much more in evidence.

A view of science as a localized and situated activity can, however, lead to the status of scientists being degraded to mere knowledge workers, dominated by the ethos of the work or market place, Rossouw warns (2000(b): 101). There is a danger that scientific findings, the noetic product, will be degraded to the status of a mere commodity, in other words, that only knowledge with practical utility value will be regarded as valuable.

Postmodernism must receive the credit for having conclusively demonstrated that reason is a fallible and historically contextual human capacity, that it cannot be seen as the final arbiter or super judge in matters pertaining to truth and validity (Hart, 1990: 234). Scientists can no longer claim reality to be the product of autonomous reality construction (Middleton & Walsh, 1995: 149), despite the claim that constructivism is a method of finding the answer to where a person finds himself. In claiming this, postmodernists cling to the idea of human

autonomy. Modern day man does not any more aspire to a total grasp of reality, and has abandoned all optimistic faith in progress.

## 5. Concluding remarks

This brief discussion of the current intellectual climate illustrates the importance of a balanced approach to scholarship in order to steer a course between modernist rationalism and postmodernism. The modernist tradition is still today conspicuous in the ways scholars ply their trade. Postmodernism has, however, sounded the warning bells regarding the inadequacies of modernism, and many scholars might feel themselves attracted to postmodernist and other alternative ontologies and epistemologies. This discussion revealed, however, that these alternative contemporary approaches to science are not without serious shortcomings. It is the task of every individual scholar to reflect on modernism and postmodernism (and associated approaches), and to decide on the most fundamentally sound way ahead. This is, of course, not a task for individuals only; the scientific community should be involved in the process.

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