

The restoration of subjectivity in science, rationality and knowledge systems as a precondition for scientific integrity

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Abstract

This article examines the development of epistemology in the modernist era. Knowledge systems are inconceivable unless conceptualised epistemologically. But what is to be done if epistemology leads us to discover that knowledge is a mystery? Hence the focus is on post-foundationalism/post-epistemology, which stresses that all knowledge systems, for all their professions of neutrality and objectivity, are merely reflections of the dimensions of human nature. This highlights the importance of virtue epistemology, which epitomises all these dimensions. This implies balancing local and universal aspects of knowledge. Such a balance is possible in the African context, a hybrid of global and local cultures, which displays both modern and postmodern traits. The article concludes with a reference to the power strategies underlying knowledge systems. The emphasis is on human self-understanding as an essential requirement for knowledge.

Abstrakt

Der Artikel untersucht die Entwicklung der Erkenntnistheorie in der modernistischen Epoche. Erkenntnissysteme sind unvorstellbar, außer wenn sie epistemologisch begrifflich gefasst werden. Was soll aber getan werden, wenn durch die Epistemologie einem fündig wird, dass Kenntnis ein Geheimnis ist? Daher wird der Akzent auf post-Fundamentalismus gesetzt, wo alle Erkenntnissysteme, für ihren Stand der Neutralität und Objektivität nur eine Widerspiegelung der Dimensionen menschlicher Natur ist. Die Wichtigkeit der Tugendepistemologie wird hervorgehoben, die diese Dimensionen verkörpert. Ein Ausgleich zwischen regionalen und universalen Aspekten von Kenntnis wird vorausgesetzt. Der Artikel schließt mit einem Hinweis auf die Machtstrategien, die die Erkenntnissysteme unterliegen. Das menschliche Selbsterkenntnis als wichtige Bedingung der Kenntnis wird betont.

Introduction

These days the statement that knowledge is power¹ only applies under very specific conditions. Not only are we threatened by a vast multiplicity of knowledge systems, but the systems themselves are suspect because of the ulterior motives and power strategies underlying them. Buying into a particular knowledge system may, wittingly or unwittingly, disempower rather than empower one. Hence our beliefs and convictions, our commitment to a particular knowledge system need proper justification. The question is: who determines and who circumscribes proper grounds?

Knowledge, and particularly the epistemological tradition, is constructed in such a way that the phenomenon of knowledge raises more questions than it answers. Knowledge (especially reflection on the precise nature of knowledge in a post-epistemological context) has become a mystery² and probing questions are asked about its purpose, what it means to us and what we want it for (see Stroud 1989:32ff). Lawson (2001:ix) writes: "For we are lost. Lost in a world that has no map ... because we can no longer imagine how such a map could be constructed. For we find ourselves in a world without certainties; without a fixed framework of belief; without truth; without decidable meaning. We have no unique history, but a multitude of competing histories. We have no right or moral action but a series of explanations for behaviour. We have no body of knowledge, but a range of alternative cultural descriptions".

Knowledge cannot be scrapped and 'redesigned' overnight. Neither has the phenomenal development of knowledge since the scientific revolution become meaningless. What has happened is that we attach a different value to acquired knowledge; that we differ about the objectives for which it is used; that many of the assertions based on this knowledge exceed its range. The striving for knowledge is a striving for its anthropocentric value. Hence the fact that

¹ The statement that knowledge is power, a tool for dealing with reality derives from the positivism of Bacon and Hobbes.

² Dretske (1989:90) observes: "Any theory of knowledge that leaves it a mystery why we need or want knowledge, why we prefer it to mere true belief, is a theory that leaves *knowledge* a mystery"

epistemological theories have become a mystery is linked to human self-understanding and calls for insight into the mystery.

Critical appraisal of knowledge systems is almost impossible without tracing the development of the epistemological tradition from Grecian times,³ and particularly since the Enlightenment, to the present – a task far beyond the scope of this article. Hence we confine ourselves to a few eclectic references. The assumption is not that philosophical reflection on knowledge is the sole criterion of knowledge systems, yet its persistent influence, especially on scientific development, is undeniable.⁴ These days the development and impact of knowledge are subject to many factors other than the philosophical, scientific or religious systems that traditionally governed it. The role of globalisation, the media and especially large corporate institutions in our knowledge development and choice of a knowledge system cannot be overestimated. The reduction of the human environment to a techno-scientific, economic environment and the imposition of knowledge systems and morality on that environment are among the greatest challenges to the preservation of intellectual freedom.

For the purpose of this article knowledge systems are seen as the local and global, formal and informal body of knowledge available in a society and the formal selection that is made from it to train and equip its members to participate in, and contribute meaningfully to, that society.⁵ This includes all

³ The Greek philosopher Pyrrho, of the Sceptic school, refused to accept any knowledge claim unless a plausible criterion was provided – a challenge that the Stoics and Epicureans took on.

⁴ In this respect epistemology is *First Philosophy*, in the sense that it lays down guidelines for all other philosophical (including scientific) knowledge.

⁵ Virtually every discipline offers perspectives on, and definitions of, knowledge in. In an epistemological context Lehrer (1989:152) defines knowledge as “undefeated justified acceptance”, conceding that this covers only the formal aspect of theory. The substantive part is coherence theory of justification, “in which personal justification results from a special relationship between the things one accepts. There must be a match between what one accepts as a trustworthy guide to truth and what really is

sources of knowledge, such as cultural traditions (language, religion, morality, indigenous knowledge systems [IKS], folk wisdom), curricula of educational institutions (including literary sources), the media (newspapers, television, internet, communication and information technology), the 'fixed' knowledge systems existing in all government, commercial and other social institutions, diverse worldviews and the like.

Clearly every organism gains some form of experience from its environment, even if it is limited and can only be considered knowledge in a metaphorical sense. The history of any organism's life cycle is a body of knowledge that a researcher can describe.⁶ Van Huyssteen (2006:76) sees evolutionary epistemology as the science that describes such processes: "Therefore, if adaptations of all sorts are forms of knowledge, then evolution itself is the process by which knowledge is achieved." It is only in humans, the highest primates, that the development of the neocortex – with the concomitant development of higher consciousness, language and culture – made it possible to exceed the genetically fixed boundaries of environmental interaction. This applies to the extent that we are virtually unaware of our genetic equipment and attribute the history of our interaction with the environment entirely to acquired skills and knowledge. Only humans record the experiential history of their ancestors and, via tradition and bodies of knowledge, hand it down to posterity. Using their accumulated experiential knowledge, later generations are able to overcome environmental

a trustworthy guide to truth sufficient to sustain justification as error is corrected by elimination or replacement" – an approach that he calls 'foundational coherentism'.

⁶ Dretske (1989:91-92) writes: "Animals need internal indicators of the conditions, generally *external* conditions, *in which* their behaviour occurs and *on which* its success depends. So plants, too, need accurate representational mechanisms. Unless these representations are, by and large, correct, neither the individual nor the species will survive. The same might be said for the *parts* of organisms. A system can't maintain *q* at the proper level unless it has some way of *telling* what the value of *q* is, and telling *is*, or at least requires, successful representation."

limitations.⁷ More than that, humans surpass every other species in their interventions in the environment to make it suit their needs. Indeed, humans have created an environment, a life world for themselves that is so virtual that it can only secondarily be regarded as an environment in the narrow sense of the word. This implies that the human environment has become a human creation to the extent that they largely determine the way it influences them: their interaction with the environment has become an interaction with themselves. Our virtual environment generates virtual knowledge appropriated by virtual individuals. Our virtual environment generates virtual knowledge appropriated by virtual individuals. This begs the ontological question asked in the film *The Matrix* – a question that cannot be divorced from the knowledge question. To escape from this virtual knowledge, virtual environment and existence is all but impossible. This applies not only to individuals belonging to the same culture, but cross-culturally as well.

This, then, is the background to the question: who determines our knowledge systems and the resultant life world? How do we escape from the virtual straitjacket?

Post-epistemological, post-empirical, and post-foundationalist inclusiveness

Epistemology determines ontology. What is real refers to our understanding and interpretation of reality. This is evident in the Copernican revolution. Copernicus's conjectures about our planetary orbits were confirmed by Galileo's telescope,

⁷ It does not mean that knowledge develops cumulatively, linear fashion. Its development is evolutionary, hence 'open'. Van Huyssteen (2006:79) actually argues that linking Darwinism with Popper's philosophy leads to a new concept of rationality, in which the evolutionary principle of error elimination for the sake of survival is also the basis of rationality. This is not new, as it is the scientific basis of epistemology. He quotes Munz: "We can therefore say that on this view of rationality, the path of reason is not a secure path which leads from certainty to certainty; rather, it is a wild display of imagination, the products of which are scrutinised by criticism" (Van Huyssteen 2006:79).

which proved the value of scientific observation as a means of verification. Scientific observation came to precede theorising and established an irrefutable benchmark for truth. Today we know better.

We have reached the end of the modernist project of finding an epistemological Archimedean point. The theories and methods to reach incontrovertible theoretical certainty continue to elude us. It does not invalidate the epistemological project, but it does call for critical comment. Such criticism is subsumed under the term 'post-foundationalism', which seeks to incorporate foundational truths in a broad project of human knowledge. "The back and forth between the epistemic skills of responsible judgement and interpreted experience will therefore turn out to be the heart of a postfoundationalist notion of rationality" (Van Huyssteen 1999:116).

Epistemology is more than just theory of knowledge. It entails investigation and assessment of successful cognition, using the sense faculties, memory, introspection and reason at our disposal. Epistemology thus appraises all areas of human research and pronounces on the mental strategies and justification of its products.

Within its purview, then, are various kinds of cognizing, including processes such as thinking, inquiring, and reasoning; events such as changes in one's world view or the adoption of a different perspective on things; and states such as beliefs, assumptions, presuppositions, tenets, working hypotheses, and the like. Also within its purview is the variety of cognitive successes, including true beliefs, and opinions, viewpoints, that make sense of the course of experience, tenets that are empirically adequate, knowledge, understanding, theoretical wisdom, rational presuppositions, working hypotheses likely to be true, responsible inquiry, and the like (Kvanig 2005:286).

In a post-epistemological context one cannot contemplate human beings and science without allowing for language. The knowledge project is tied to language and knowledge reform presupposes linguistic reform. In this regard Thiselton (1995:28) cites Wittgenstein's *Philosophical investigations*: "A picture held us captive. And we could not get outside it, for it lay in our language and language seemed to repeat it to us inexorably."

Science demands positivist interpretation, which, in the form of *instrumentalism* (according to which scientific theories are predictive tools without any descriptive purpose), makes social functioning possible (see Feyerabend 1981:17). The problem is that positivism (hence empirical scientific knowledge) is regarded as the sole source of reliable knowledge. Hence relativisation of scientific attempts to establish representation is a major point of reference in the history of the evolution of scientific thought systems. This calls for comment.

The development of Western thought systems, science and epistemology converges in the issue of representation. Science represents the world through accurate description. Truth is linked to representation, for it is the irrefutable description (via natural laws and scientific theories and formulas) of an independent world. And, so we believe, accurate description of the world gives human beings power to control and manipulate it. "In the light of the Great Project [Western ideal of accurate representation of the world – CWdT], Western culture has been able to regard itself not merely as being more economically successful than previous or alternative cultures but more advanced, having begun the slow acquisition of those modestly eternal truths known as facts and the placing of them within a theoretical framework" (Lawson 2001: xviii-xxix).

The representation problem was thwarted from the outset by the problem of a self-referential paradox. The representation ideal assumes an observer, a universe and a theory, but this trinity had to form part of a single theory of presentation. "Each of the options available has been extensively explored. Materialism involves embedding the observer and the theory in the universe; idealism the embedding of the theory and the universe in the observer; and the so-called linguistic turn ... the observer and the universe ... in the theory" (Lawson 2001:xxix). But the representation project cannot have an observer, for the observer is part of the universe under observation. At any rate, if the ideal of a neutral, objective version seeks to exclude historical, cultural and subjective factors, a human observer does not fit the role (which, ironically, calls to mind the determining role of the subject in quantum mechanics). In his

Philosophical investigations Wittgenstein tried to surmount the problem by making the observer-universe relation a language-universe relation. But that is no less paradoxical, for a 'separate' symbolic language that describes the language-universe relation is not part of the world, hence cannot describe it.

Thus all attempts at establishing objective representation founder on the self-referential paradox – analogous to that of the Cretan who said that all Cretans are liars. Here are some other examples:

- “All meaningful statements must be empirically verifiable” – which is not an empirically verifiable statement.
- “There is no truth” – implying that the statement is not true.
- Russell’s famous example (quoted in Lawson 2001: xxxv) of the barber who shaved everybody who did not shave himself or herself. If he shaved himself, however, it is a paradoxical statement. If he does not shave himself, he should do so, for he shaves everyone who does not shave himself. And if he does shave himself, he ought not to, for he only shaves those who do not shave themselves.

Where does that get us? We have to admit that knowledge is a human business and all the noble ideals of neutral, objective, universal knowledge are fraught with paradox.

Naive knowledge operates without requiring substantiation of every statement, although it is not unsubstantiated. The substantiation of everyday statements is linked to belief, conviction and opinion within specific, unique contexts.

Virtue epistemology as example of post-epistemological inclusiveness

Postmodern criticism of the attainability of immutable, foundational knowledge systems has had such an impact on epistemology that one could speak of a post-epistemological era, characterised by a post-empirical, post-foundational attitude. This does not mean that epistemology is no longer important, but that its special position as the exclusive

substructure of science has had to make way for a more inclusive approach to knowledge.

This is evident in, for example, the emphasis on what is called virtue epistemology. Traditionally one would expect epistemological virtue to involve intellectual abilities manifested in knowledge, a correct methodological approach to knowledge, accuracy, a critical orientation, logical consistency, et cetera. Wood (1999:14-15), however, sees intellectual virtue as “an abiding, acquired trait that reliably allows us to orient our intellectual lives – our believings, reasoning habits, and cognitive powers – in ways that contribute to human flourishing, most notably to success in cognitive endeavours such as gaining understanding, acquiring truth and avoiding falsehood, being able to revise one’s beliefs in the face of new information, and so on”. Credulity, folly, superstition, obstinacy, deliberate naivety, on the other hand, falls in the category of intellectual vice.

A virtue epistemology, then, is a matter of attitude rather than of method.⁸ It emphasises human wisdom as a differentiated, comprehensive understanding aimed at human flourishing. However, virtue also varies from one philosophical tradition and one culture to the next. Consequently it is analysed in every philosophical framework. The power strategies that underlie knowledge and truth claims have been highlighted by Foucault (Du Toit 1996:36-38).⁹ As a result

⁸ The emphasis on a particular scientific method as the exclusive access to truth has been relativised in the postmodern context. Method design has always proved to be reductive. Examples include the Baconian method for the natural sciences, Descartes’s “Discourse on method”, Locke’s “Historical plain method”, Mill’s methods and Husserl’s phenomenological method (see Wood 1999:21).

⁹ The view that power underlies everything virtually precludes the demand for objectivity. On what do we base our decisions? Truth is tainted. Many would say that a lot of the decisions made in post-1994 South Africa were based, not on objective knowledge, but on emotive factors like guilt, anger, retribution, restitution, etc. But what judgment is apolitical? MacIntyre (1987:398) maintains that even philosophy, which purports to be objective and unbiased, is, one way or another, political.

claims to universally valid knowledge systems, and the idea of a universal human nature that enables us to pin down knowledge, behaviour or objectives have to be regarded with suspicion: “the notion of virtue is not captive to any one account of human ends and purposes, religious or otherwise” (Wood 1999:22).

Local knowledge systems and the problem of perspectivism

Knowledge systems do not exist in a vacuum; they always appear in the form of a particular tradition. The Enlightenment model of rationality was blind to this (see MacIntyre 1988:7). The phenomenon of human rationality is universal, but the specific form it assumes in a particular era and culture varies, because every rational tradition has a distinctive history.

The fact that rationality is biologically rooted, is universal, has to comply with specific epistemological requirements in a particular scientific discourse, et cetera, does not mean that its form is unvarying. Rationality has to be integrated with all other human functions and should not be viewed in isolation. MacIntyre (1988:76) puts it thus: “in different cultures desires and emotions are organized differently and there is therefore no single invariant human psychology.” Different human psychologies presuppose differences in morality, beliefs and values.

Thus rationality is also bound up with traditional context in all its manifold manifestations. Different, competing systems of rationality all have their own luggage. “Each has its own standards of reasoning; each provides its own background beliefs. To offer one kind of reason, to appeal to one set of background beliefs, will already be to have assumed the standpoint of one particular tradition” (MacIntyre 1988:351-352). Yet many saw the acceptance of contextuality and the concomitant relativism and cultural determinism as the end of scientific development. Lawson (2001:xvii) describes this feeling about perspectivism as follows: “we stand at the end of a great tradition, which has provided us with a tolerant, liberal environment that has husbanded the valuable and discarded the worthless. It has done so on the basis of an adherence to empirical, rational thought and endeavour. If it is accepted that there is only perspective, all of this is at risk. For there can be no agreed method for advance, nor any notion of what progress would comprise, and as a consequence we will be at the mercy of those who can shout

loudest and longest in the pursuit of their own ends and their own values”.

But is pluralism and perspectivism the end of progress and universal understanding? Does this mean that cross-traditional debate on rationality is impossible? According to MacIntyre a relativist standpoint would preclude rational debate and rational choices between opposing traditions. A perspectivist standpoint, on the other hand, denies the possibility of making truth claims on the basis of any tradition. “Yet if this is so, no one tradition is entitled to arrogate to itself an exclusive title; no one tradition can deny legitimacy to its rivals” (MacIntyre 1988:352). From a perspectivist position the only solution is to avoid true-false categories altogether and rather to treat different rationality models as complementary perspectives on the reality in question. MacIntyre rightly regards both the relativist and the perspectivist standpoints as attempts to move beyond the Enlightenment ideal of truth and rationality, according to which methods and the irrefutable principles that underlie them guarantee certainty (see MacIntyre 1988:353).

Exposure to other knowledge systems and their integration with local contexts

Although most scientists espouse the view that science is neutral and universal, it is not true that a ‘neutral body of knowledge’ is established in the same way in different societies. Many factors influence the successful implementation of knowledge systems in different communities, as well as the specific form they take. Examples are the role played by religion, the educational and research culture, as well as the level of industry and the economy. Knowledge and self-perception cannot be separated and decisively influence the development of any epistemological culture.

While the formal sciences are linked to Western individualism and are able to examine reality through intentional objectification, such scientific objectification of nature is not found in collectively oriented societies. In a sense

modernism cannot be divorced from a culture of individualism with its striving for certainty (Descartes' thinking self) and emphasis on the representation problem (between knowing individual reason and known thing/object). Although science has a social dimension and theories are tested by the scientific community, scientific research presupposes individual autonomous reason.

What do knowledge systems look like in collectively oriented communities where the accent is on custom and tradition rather than on autonomous reason? Body-mind unity, the role of women, religious taboos, and perceptions of internal versus external space, for example, are governed by very different factors (see Foucault: 175-185).

Theorising characterises all traditions. Theorising presupposes the possibility of modifying one's own system and evaluating other systems. Reception of other systems is complex, involves intensive theorising and passes through the familiar phases of confrontation with new beliefs, inconsistencies in existing systems, ambivalence about unprovable assumptions, et cetera. It also presupposes a tradition of rational inquiry, which includes openness to criticism and scope for changing one's own system. Facets of a culture that are considered peripheral are obviously changed more easily ('neutral' science and technology would fall in this category), while aspects that belong to the core of a tradition and concern belief and worldview are usually far more resistant to change. Beliefs based on faith and tradition are difficult to change, because rival models are probably equally reliant on faith and as unprovable.

Hence to speak about knowledge systems is incomplete unless one is familiar with the geography of knowledge and its decisive impact on human rational development. Although human reason is open and fluid, it was traditionally assumed that there is a fairly clearly defined, cultural rational identity. Changes in thought paradigms were understandable and were usually accepted by society at large and especially by scholars, to the extent that they were affected. As a result of exposure to the global culture and technological diversity this no longer applies. "It is now not uncommon for it to be argued that there are no

facts that can be identified independent of culture and society, of perspective and theory, and increasingly there are those who find in the retreat from the certainties of the past, an opportunity to proclaim the value of alternative traditions and cultures, and a means to denounce what are seen to be the tired and outdated canons of the West” (Lawson: 2001:xvi-xvii).

On the face of it, it would seem as if we are far more disposed to accept other systems when they are ‘neutral’. ‘Facts’¹⁰ are considered neutral and techno-science rests on facts. In a foundationalist context this ‘neutrality’ is manifested in the precedence of self-knowledge over knowledge of others; of neutral knowledge over knowledge based on opinion or context; of knowledge of the natural order over other knowledge. Thus epistemological foundationalism¹¹ determines the rules for all other ‘knowledge utterances’. First fact, then value; first nature, then culture, belief, opinion (see Taylor 2004:80-81). The further we move from epistemologically founded knowledge, the more knowledge becomes mere opinion, conviction or personal truth. Despite criticism of epistemological reductionism, it cannot be denied that it is the basis on which virtually all sciences – including human sciences – operate.

Although theories may be debated within a specific science, outside the scientific forum one often encounters

¹⁰ The Latin word for ‘fact’, *factum*, refers to an event, deed or opportunity and was not used as a substitute for something entailing a judgment until the 17th century. Using the word ‘fact’ as a substitute for a judgment can be very misleading (see MacIntyre 1988:357). To logical positivists facts remain crucial, in that knowledge is gleaned “through a combination of observation and logical deduction, along with the precise defining of our terms ... based on a secure foundation of agreed facts” (Lawson 2001:xvi).

¹¹ The place that natural knowledge occupies in our self-understanding has increased with the growth of scientific knowledge. Today it is as powerful as it was in the heyday of the Enlightenment, although greatly tempered by factors such as human values, beliefs and history. An example is the environmental determinism of the late 19th and early 20th century: “Environmental determinism in the late 19th, early 20th centuries alleged that we are what nature makes us. Man is a product of the earth’s surface; a child of the earth; dust of her dust; mothered by the earth which fed him, set him tasks and directed his thoughts” (Barnes & Gregory 1997:174).

uninformed faith in science, and the natural sciences in particular are accepted as factual. Most people consider disputes about the theories underlying technoscience irrelevant. They are seen as a problem for the sciences, although there are plenty of controversies about things like values, language and tradition. Belief is usually part of a metaphysical system and is value-laden. Where deeply entrenched values are at issue they are defended tooth and nail.

MacIntyre (1988:368) has indicated how difficult it is to reconcile competing points of view. "The multiplicity of traditions does not afford a multiplicity of perspectives among which we can move, but a multiplicity of antagonistic commitments, between which only conflict, rational or nonrational, is possible."

The mere availability of knowledge and sources of information tells us nothing about their reception. Besides, nowadays knowledge systems are not clearly defined and we are inundated daily by a deluge of knowledge in the form of media, techno-science¹² and labour practices, whose underlying values are not spelled out or readily identifiable.

What determines the will to master knowledge systems and appropriate them? The Kantian challenge, *sapere aude* (think for yourself, be led by your reason), is a performative contradiction, because while propagating intellectual freedom, it also prescribes a path for the intellect (see Norris 2006:130). Norris (2006:130) maintains that "it seems self-evident that beliefs are to a large extent non-volitional, or subject to various kinds of causal or socio-cultural influence". Knowledge systems are embedded in a cultural context that has a particular power of attraction or repulsion. Usually they are linked to some reward: belief systems offer salvation and happiness; the knowledge corpus that is part of formal education systems promises job

¹² Technological artefacts are products of an extremely successful combination of theoretical and practical reason. Techno-scientific artefacts are considered neutral and are desirable because they create jobs and enrich and simplify life. But they are not neutral and embody a particular rational culture and worldview. In this sense we may speak about the 'silent colonisation' of the world by techno-scientific values.

opportunities and career possibilities; corporate knowledge systems have to be mastered for access to, and promotion in, a company; narrative knowledge systems contain superstitions about the role of various forces (ancestors, predestination, good and evil, happiness and fate) in human life. Scientific models, by contrast, are considered detached, because they have no direct bearing on the life world and the happiness of individuals or groups.

Contextual versus universal rationality

Rationality, like intelligence, is a universal human given. Without objectivity and universal rationality science and understanding are not possible. Harding (1998:55) indicates that in important respects modern sciences and technologies, no less than other cultures' traditions of systematic knowledge, are local knowledge systems. If it is true that natural science studies the environment and considers its knowledge output to be universal, does it reduce the human body of knowledge to uncreative formulae, generalised truths? Human knowledge is polysemic and pluriform, and is always contextual. So-called universal knowledge, too, is always appropriated in a particular situation and temporo-historical context. So the human sciences cannot look alike. Religion is an example. The various religions represent a variety of self-interpretations informed by diverse interpretations of transcendence. Whether the dualism – immanence / transcendence, physics / metaphysics, transcendental philosophy / empirical philosophy, belief / reason – can ever be resolved by any philosophical system or trans-disciplinary initiative is a moot point. Maybe the dualism (or rather, dual perspectivism) should rather be seen as characteristic of human nature. Absolutising one of the dimensions is a reduction of human nature. Rorty (1987:29) summarises the opposition between the two approaches as follows: “To be on the transcendental side was to think that natural science was not the last word – that there was more Truth to be found. To be on the empirical side was to think that natural science – facts about how spatio-temporal things worked – was all Truth there was”. What is true is that traditional metaphysical bastions are coming

under fire and that on the human journey through the 21st century 'new' metaphysical bastions are being erected.

Even though rationality is a universal human datum, it does not mean that it assumes the same form everywhere. Knowledge systems and their underlying rationality are both local and universal. Emphasising only the universal dimension is to deny the local diversity and personal creativity embedded in a particular linguistic or cultural milieu. Emphasising only the local dimension is to deny common human rationality as well as the hermeneutic capacity to understand. Of course there are limitations to the range and success of universal rationality, as well as the degree to which we can really understand foreign local contexts. Besides, individual and cultural exclusiveness typically maintains that the 'other' does not understand 'my' personal and / or cultural context. The psychological background to this attitude makes sense, because the fact that my personal or cultural context is far more complex than an outsider can appreciate safeguards me against her negative interpretation and appraisal. To say that Europeans cannot understand Africans or Orientals protects the latter against adverse European criticism; to declare a tradition Oriental absolves Africans and Europeans from the expectation to be informed about that system. Citing a tradition is often purely referential (indicative), but it may also be ethnocentrically oriented, entailing connotations of superiority or inferiority. History does, however, testify to successful trans-cultural communication and interaction. There are no pure traditions or cultures and the intellectual property of all cultures should be applied to the common benefit of all.

There are other examples of rational exclusiveness: male rationality cannot really understand female logic; religious rationality differs from scientific rationality; inter-generational differences in rationality are insurmountable; and the rationality operative in ancient texts is inaccessible to present-day readers. Refinement of complexity can be taken to the point of the absurd. The diversity that universal rationality has to overcome is also found in local contexts. Members of closed communities, even members of the same family, may say that

they do not understand each other. Indeed, one can claim not to understand oneself. The principle behind this is that there is something like personality, community, tradition, identity *an sich*. It is entrenched behind a wall of hermeneutic impenetrability.¹³ But we know that identity is open, that it grows and changes – even though some traditions or minority groups apparently manage to preserve their value systems unchanged. We also know that the holistic context in which rationality functions is unique, because the emotive value of belief, the associative and connotative value of words and images for every individual is unique. Nevertheless we are able to communicate and understand each other.

This confirms the importance of a holistic approach to epistemology that is characteristic of current thinking. Knowledge should be viewed against the background of human nature – and in this respect the role of subtle power strategies cannot be overestimated. Whether these strategies are regarded as colonising, proselytising or apologetic, they colour our view of the understanding and communication of knowledge systems. A non-foundational attitude emphasises the local and contextual nature of knowledge.¹⁴ It “highlights the

¹³ The developmental psychologist Simmel, who interprets cultures from an objective and a subjective perspective, has pointed out this strategy. He emphasises “the role of purposefully maintained social and psychological distance between persons”, which takes the form of secrecy. The history of human societies contains abundant examples of secret organisations that make secrecy a universal sociological phenomenon. The analogy of flirtation by way of concealing the body is clear. “The proof of the dynamics of keeping and revealing secrets is the activity of flirtation... The basic need for clothing has been turned into the cultural process of *hiding and revealing the body simultaneously*.” The dynamics of revealing and concealing has to do with distance between self and other. “Yet the process of such distancing is always ambivalent – with united opposites in conflict, creating ambivalent patterns of temporary dominance of one over the other, reversal of such dominance, and the feeling of ‘generalized distancing’ ” (see Valsiner 2000:35-36). For the important role of secrets in African communities, see De Jong 2004:257ff.

¹⁴ The reasons given for the contextual nature of rationality are that rationality is always intrinsic to a particular practice; that the belief upheld in a particular practice cannot be applied to evaluate another practice; and that there are no standards of rationality that can be used to judge other

fact that every historical context, every cultural or social group, has its own distinct rationality ... Non-foundationalists offer a picture of human knowledge as an evolving social phenomenon shaped by the practical implications of ideas within a larger web of belief” (Van Huyssteen 1999:63-64).

Knowledge systems as part of human self-understanding: the subjective aspect and value dimension of knowledge systems

The scientific revolution, we all know, isolated objectivity as the basic component of science. This assumes a subject who is “ideally disengaged, that is free and rational to the extent that he has fully distinguished himself from his natural and social worlds, so that his identity is no longer to be defined in terms of what lies outside him in these worlds” (Taylor 1987:471). Today there is a drive to restore the role of the subject and the experience of self, as well as many other factors that are excluded by a narrow empirical approach. Human experience and self-understanding are constitutive for science, not simply an epiphenomenon of scientific objectivity. Taylor (2006:57ff) emphasises that emotions are linked to objects. Emotion is the experience that our situation has specific properties that are not neutral, otherwise we would not be affected by emotion. Emotions, such as fear, shame, self-consciousness and a sense of dignity, bring a certain import to a situation that affects me and this is a particular form of experiential knowledge! (Taylor 2006:60-61) However, unlike in the natural sciences, we cannot pinpoint the properties of the specific ‘import’, as the example of shame proves: “But with the shameful, this [objective, scientific – CWdT] pattern of explication breaks down. For the shameful is not a property that can hold of something quite independent of the experience subjects have of it. Rather, the very account of what shame means involves reference to things – like our sense of dignity, of worth, of how we are seen by others – which are essentially bound up with the life of a subject of experience” (Taylor 2006:64). Subject-referential qualities do not accord with an objectified

practices. The rationality of science, for example, differs radically from that of religion (Van Huyssteen 1999:79-80; 2006:19). Thus rationality becomes incommensurable and there is no chance of communal consensus.

worldview, yet we cannot say that they put emotion in opposition to reason. The important point that Taylor (2006:72) makes is that subject-referential emotion is essential for our understanding of what it is to be human. We have already noted that rationality cannot be separated from what it is to be human, from human self-understanding. Emotion, too, cannot be divorced from the epistemological enterprise, because our lives are always tied up with interpreted emotion. Furthermore, we are always trying to articulate the interpreted emotion – hence human beings are self-interpreting animals (Taylor 2006:75). Human agents and their knowledge are tintured and that has to be taken into account. Elsewhere (1987:476) Taylor writes:

It becomes evident that even in our theoretical stance to the world we are agents. Even to find out about the world and formulate disinterested pictures, we have to come to grips with it, experiment, set ourselves to observe, control conditions. But in all this, which forms the indispensable basis of theory, we are engaged as agents coping with things. It is clear we couldn't form disinterested representations any other way.

But are we always completely honest in the explicit articulation of our emotions – especially about the motives underlying the emotion? The negative ulterior motives for our scientific practice, our account of reality and our 'objective judgments' are as constitutive for the findings we publish as the role of emotion. We like to refer to ourselves and our knowledge systems as modern, credible, commendable and universal. Nobody likes to mention the power systems underlying their knowledge systems (see Thiselton 1995: 124-134; 138ff). The fact that knowledge systems are based on power systems is not new and has been pointed out by various authors in different contexts. The following quotations need no further comment:

Niebuhr (1960:45) says: "... for it is significant that men cannot pursue their own ends with greatest devotion, if they are unable to attribute universal values to their particular objectives. But men are no more able to eliminate self-interest from their nobler pursuits than they

are able to express it fully without hiding it behind and compounding it with honest efforts at or dishonest pretensions of universality”.¹⁵

And further (Niebuhr 1960:34): “Men will not cease to be dishonest, merely because their dishonesty has been revealed or because they have discovered their own deceptions. The development of social justice depends to some degree upon the extension of rationality. But the limits of reason make it inevitable that pure moral action, particularly in the intricate, complex and collective relationships, should be an impossible goal.”

Furthermore (Niebuhr 1960:232): “The nations of the world which pretended to fight against the principle of militarism have increased their military power, and the momentary peace which their power maintains is certain to be destroyed by the resentments which their power creates”.

Edward Said (1994:65) refers to the problem from the perspective of the intellectual’s role in society: “Is the intellectual galvanized into intellectual action by primordial, local, instinctive loyalties – one’s race, or people, or religion – or is there some more universal and rational set of principles that can, and perhaps do govern how one speaks and writes? In effect I am asking *the* basic question for the intellectual: how does one speak the truth? What truth? For whom and where?” Said (66-67) cites Peter Novick’s book, *That noble dream*, to make his point: “Objectivity has had to do service in wartime as ‘our’, that is American as opposed to fascist German, truth; in peacetime as the objective truth of each competing separate group – women, African-Americans, Asian-Americans, gays, white men, and so on – and each school (Marxist, establishment, deconstructionist, cultural).” Said (1994: 67-68) then affirms that the critique of objectivity confirmed the constructed nature of knowledge – that the so-called objective truth of the white man’s superiority ... rested on a violent subjugation of African and Asian peoples, who, it is equally true, fought that particular imposed ‘truth’ in order to provide an independent order of their own. And so now everyone comes forward with new and often violently opposed views of the world: one hears endless talk about Judeo-Christian values, Afrocentric values, Muslim truths, Eastern truths, Western truths, each providing a

¹⁵ By way of example, Smith (1978: 295) refers to the idea that Western development is identified as the generator of all development: “The West is active, it makes history, it is visible, it is human. The non-Western world is static, it undergoes history, it is non-human.”

complete programme for excluding all the others. There is now more intolerance ... than any system can handle. The result is an almost complete absence of universals, even though very often the rhetoric suggests that our values (whatever those may happen to be) are in fact universal.

But aren't we all like that? And, if so, what prospects are there of meaningful encounter and integration of different traditions? We should be aware that there has to be consensus on what we accept as rationality. If not, different groups will arbitrarily impose their own criteria to serve their own power interests – a common cause for conflict.

Local knowledge is pragmatic and reflects local needs and interests often far better than universal knowledge. In this sense, universal knowledge forms the backdrop against which local knowledge features. "In contrast to metanarratives that claim to bind together the totality of discourse and action into overarching unity, local narratives are more responsive to the diversity of micro-practices in everyday life and the plurality of language games that pervade our discourse" (Van Huyssteen 1999:210).

Conclusion

The history of epistemology, with its *Wirkungsgeschichte*, growing complexity and inevitable culmination in post-epistemology and post-foundationalism, can easily incline us to epistemological agnosticism (not knowing). If philosophy has reached its end, and so has modernism, that end is a meaningful *telos*. It is an end in the sense of the completion of a project from which we have learnt a lot about what it means to be human. Epistemology is an anthropocentric enterprise, and as such it is changeable. We dare not stop interrogating our knowledge system, even if the exact nature of knowledge continues to elude us. The human project is open-ended and, as our landscape changes, so does the answer to the question of what knowledge is.

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