

THE STUFF WORLD-VIEWS ARE MADE OF

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Abstract

After pointing out some general features of the concept world-view, thematic theories of world-view analysis are compared to systematic theories. The latter is explored in that a model is presented which can serve not only for systematic world-view analysis, but also for comparing world-views and for dealing with world-views in opposition. The model consists of at least four elements: the internal equilibrium, the social and physical environment, world-view and ethos and world-view universals, which all contribute to an understanding of the stuff world-views are made of and for making it a useful analytical tool.

1. Introduction

The theme of this conference² *World-views in opposition*, presents us with a number of issues. The first is the obvious problem that, in order to compare world-views, one has to be sure that the same thing is being talked about (see Jones 1972:86; Macnamara 1980:19). Davidson, in his now classic article, reminds us that 'if we cannot intelligibly say that schemes are different, neither can we intelligibly say they are one' (1973/4:20). In order to deal with opposing world-views it is essential that some comparable matrix or schema be used. Therefore, sorting out the stuff world-views are made of will be helpful in determining what we talk about when we talk about world-views, and especially about world-views in opposition.

The second issue is that the argument for a plurality of, and usually a tolerance for, the diversity of world-views, presents us with a paradox: on behalf of world-views which themselves are provincial, intolerant and usually totally unaware of the alternatives, a plea is made for tolerance and the acceptance of a diversity of world-views. It has to be realised that very few (if any) world-views take as part of their furniture the possibility that alternative world-views exist. I am obviously not thinking about oppositions such as yin and yang in some Eastern systems (see Capra 1982:17-18) or that light can act wave-like or particle-like as in quantum physics, because these are oppositions within systems. I have in mind a keeping together of incommensurable beliefs within the same location. For example, beliefs that the world is flat and round at the same time or the possibility of accommodating a geocentric and noncentric view of the cosmos in the same picture.

Third, the issue of opposing world-views usually arises within the context of different world-views occupying the same location and not within world-views holding opposing views together. Therefore, the question arises whether world-views are merely reflections of the social and natural environments within which they appear, or do they also influence these environments? Are world-views only ideas which can exist within the same location, or do they have links with structures and institutions which do not necessarily allow alternatives?

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One of the aims of this study will be to determine whether there are useful world-view models available for answering some of these questions and for comparing opposing world-views.

2. Some general features of world-view 'stuff'

Before specific models of world-view analysis are considered, some general features of world-view stuff will be mentioned. While some of the positions taken here deserve more justification than given here, these features will illuminate some of the presuppositions by means of which this study is to be evaluated.

2.1 World-views involve the whole person

The trap of taking world-views simply as cognitive systems should be avoided. Not only is a great deal of emotional energy invested in a person's world-view, but since a world-view describes the way someone sees the world, all cognitive, emotive and conative aspects of one's life are involved (see Macnamara 1980:22). Fernandez (1985:754-755) points out that a rational and an aesthetic logic work together in creating and maintaining a world-view. In this regard one can appreciate the definition of Feyerabend (1994:152) who defines a world-view

as a collection of beliefs, attitudes, and assumptions that involves the whole person, not only the intellect, has some kind of coherence and universality and imposes itself with a power far greater than the power of facts and fact-related theories.

2.2 World-view - a process rather than a static object

It is good to remember that world-views are more often not static, a thing or an object but, as Redfield suggests, they are things constantly in process (Redfield 1963:281). It is the process through which people in an open-ended way negotiate and renegotiate their positions in the world (see Chidester 1991:20).

2.3 Each world-view contains a core element

Each world-view seems to contain one or more core elements. This can be either one of the world-view universals or one of the structural elements to be discussed shortly. Maintaining that each world-view tends to have a core element is different from saying that a world-view can be reduced to a single component such as a cosmology or a definition of the self.

The notion that there is a difference between the core elements within each world-view and reducing a world-view to a single core element, is important in comparing world-views. Reducing world-views to certain core elements is not helpful when one is confronted with opposing world-views because it disregards the very first point made in this study - namely, in order to compare, one has to find comparable entities or categories.

2.4 World-views as cultural wholes

The term *world-view* is used at a time when many questions are being raised about the possibility of talking about cultural wholes or world-views. Examples are the objections to the 'two lumps approach' (see Maluleke 1996:20) and the argument that nowadays we live in a global village where everybody is influenced by almost everybody else. Questions are being asked

about the coherence of life-ways, the degree to which they form connected wholes. Questions about their homogeneity, the degree to which everyone in a tribe, a community, or even a family (to say nothing of a nation or a civilization) shares similar beliefs, practices, habits, feelings.

(Geertz 1995:42)

The issue of cultural wholes or world-views can, however, not that easily be dismissed because, despite these questions, anthropology, or at least the sort which studies cultures, proceeds. That is the case because, as Geertz says, despite the fact that the number of accepted and frequently used patterns in a culture is extremely large, 'certain sorts of patterns and certain sorts of relationships among patterns recur from society to society' (Geertz 1973:363). This is due to the fact that the orientational requirements these patterns serve are 'generically human' (Geertz 1973:363).

I therefore start with the assumption that despite the above objections there are central tendencies in particular world-views held by members of cultural groups (see Jones 1972:86, 104). Members of all cultures tend to share a common cognitive orientation which often is an un verbalised, implicit expression of their understanding of the way the world works and the rules of the game of living imposed upon them by their social and natural universes (see Foster 1965:293; Macnamara 1980:33). In the words of Geertz (1973:52): 'Becoming human is becoming individual, and we become individual under the guidance of cultural patterns, historically created systems of meaning in terms of which we give form, order, point, and direction to our lives'.

Does not the statement that we live in a global village (which has become commonplace nowadays) deny the continuation of such a belief? I think not because, as Ong (1969:645) remarks, the global village idea 'is a gnomic and paradoxical commonplace' since what is global cannot be a village. The village feelings of in-group and of affording protection against the outside world, have disappeared. But this does not imply that all in-group boundaries have disappeared. Therefore, what might appear on the surface as a shared world-view or common culture - even sharing the same cultural products such as highly technological equipment and gadgets - does not necessarily imply a shared world-view on the basic level.

The search for common trends and tendencies in human activities, Geertz (1973:44) says, consists of looking 'for systematic relationships among diverse phenomena, not for substantive identities among similar ones'. In short, *seeing heaven in a grain of sand is not a trick only poets can accomplish* (Geertz 1973:44); this can also be the task of world-view analysts and scholars in cultural studies.

A debate on world-views in opposition, it seems to me, can therefore proceed neither without some way of identifying the systematic relationships between the diverse phenomena presented in different world-views, nor by one-sidedly emphasising the unique and individual traits in human views, actions and behaviour. The individual and the particular seem to be embedded in the cultural and the general.

2.5 World-view - an elusive concept

It should be acknowledged that world-views are complex creations (see Winthrop 1991:326) and that world-view analysis is a 'peculiarly elusive subject' (Macnamara 1980:19). In neither anthropology, nor in most other fields of research, is world-view analysis 'a well-established field of study in the sense that it appears in course catalogues, or that there are recognised schools of world view theory or many scholars specializing in it'

(Kearney 1975:247). But, paradoxically, notions on world-views and world-view related subjects permeate literature in a number of disciplines (see Kearney 1984:9).

Therefore, the concept 'world-view' is used not only in a large number of academic fields, but also with a disconcerting number of meanings. It is therefore not surprising that some scholars refrain from using it at all, or prefer some other concept such as world-picture, cognitive maps, forms of life or total outlook (see Macnamara 1980:20; Foster 1965:294; Jones 1972:79). The problem, however, is that such a refusal will not let the issue disappear; everyone, everywhere and at all times, 'seems to live in a sense-suffused world' (Geertz 1995:43). Whatever we decide to call it, the need of descriptive terms for such symbolic worlds will not disappear.

In the current literature, at least two trends in world-view analyses, which will be referred to as thematic and systematic trends, can be identified. They correspond to different ways of defining the stuff world-views are made of and consequently present us with different sets of issues to deal with.

3. Thematic uses of world-view

Within thematic usages the term world-view receives its content from one particular theme or element and thus has a limited scope. This is the case not only in the natural sciences but also in anthropology and religious studies. It is used for mechanistic and magical, for apocalyptic and positivistic, for religious and scientific world-views. In each case, a single element or set of elements constitutes the particular world-view.

The two most popular usages in the natural sciences are either as a synonym for cosmology (see Dundes 1972:92; Kearney 1975:248; Capra 1982:37, 66, 281, 352; Mauser 1987:32) or as a description of the nature of science (see Dieks 1994; Feyerabend 1994). Du Toit, for example, says: 'If we accept that one's world-view (which is especially generated through the cosmology) exerts a significant influence on one's value systems and lifestyle, we would have to accept that cosmologies cannot be forced onto people' (1994:11). As regards the second usage, Feyerabend remarks that there is no single and simple map of reality provided by the scientific world-view. Instead, he mentions an incomplete list of approaches which each produce a scientific world-view: the astronomical, atomic, kinetic and mechanical, physical, phenomenological, morphological, genetic, psychophysical, vitalistic, and statistical views (see 1994:139-141).

In anthropology one encounters this tendency of reducing the term world-view to a single theme or element in attempts which set out to identify a culture's typical personality type - for example, Dobuan culture is paranoid and Pueblo culture Apollonian (see Redfield 1963:270-273; Kearney 1984:23-29). Very often a description of magical world-views fall into the same trap.

This reductionistic practice in religious studies is encountered where a core element such as a cosmology or a belief in a deity or deities dominates discussions of world-views (see Smart 1983:54-59). Smart acknowledges that a world-view contains at least three elements (the cosmos, self and other), but describes world-views as particular expressions of religious cosmologies.

The main problem, in my view, is that thematic usages overlook the role of a number of other elements which constitute particular world-views. In this way they gloss over substantial variations in world-views and furthermore fail to realise that world-views differ from aspects such as credos, philosophies, dogmas, scientific theories or ideologies (see Macnamara 1980:20-21, 26-27 for more detail). While most of these aspects are limited in

scope and address only one or a few aspects of human reality, they also presuppose the prior existence of a world-view (see Wisdom 1972/73).

As will be argued, world-views originate in a dialectical process where, amongst other things, environmental conditions, systematic observation, an ethos and traditional elements interact with each other.

4. Systematic theories of world-view analyses

The second trend in world-view analyses is a growing body of literature, especially in anthropology, which can be called *systematic*. Within these theories

there is greater concern to explore the kinds of dynamic relationships that integrate the various isolated propositions of particular world views among themselves, their social and geographical environments, and their associated cultural behaviours.

(Kearney 1975:267)

At least two features in this trend are to be noted.

First, within these theories it is acknowledged that world-views are part of other systems. Therefore, as a working hypothesis I take a social or cultural system to consist at least of the following elements which are in a dialectical interaction with one another: social institutions and structures, world-view and ethos and practices, behaviours and customs. I have no intention in this study of describing a cultural system in greater detail. Thornton (1990:119) correctly points out that culture is a set of resources which consists of 'objects, sounds and languages (one or many), traditions, customs, habits, beliefs and so on, but also includes secrecy, violence, deceit, revolution and innovation ...' Ways of being inhuman are therefore also part of culture. The inclusion of all these 'resources' into one's analytical framework, however, does not deny the existence of institutions and world-view aspects in understanding specific cultural systems. In fact, while analyses often focus on the institutions and practices of a culture, world-view and ethos analyses investigate the dynamics of cultures, those beliefs and attitudes which give content and body to both institutions and structures and to the practices, customs and resources in a particular culture.

It should be emphasised that none of these aspects can be seen in total isolation since they are all in dialectical interaction in that they influence one another and experience mutual feedback actions. The result of this kind of dialectical relationship in world-view processes is that, from one perspective, world-views are maps of how to live. From another perspective, they themselves are subject to the way people are living, acting and thinking (see Smart 1983:61).

Second, since world-views are not static, the stuff they are made of are not only world-view universals but also the fibres (or ethos) which keep these universals together as well as the dynamics within a world-view and external to it. In other words, there is a sense in which world-views not only influence the environment and cultural system within which they exist, but are influenced by these elements.

The model in Figure 1 (which is a modified version of Kearney's 1984:120) will be used to explain the relationships and interactions within cultural systems. A number of explanatory remarks will clarify this model and suggest its usefulness for comparing world-views. At the same time, justification will be given for the interactive relationships between the elements in the model. In order therefore to describe the substance of any world-view, it is necessary to pay attention to at least four aspects: the internal equilibrium, the social and physical environment, world-view and ethos, and world-view universals.

FIGURE 1

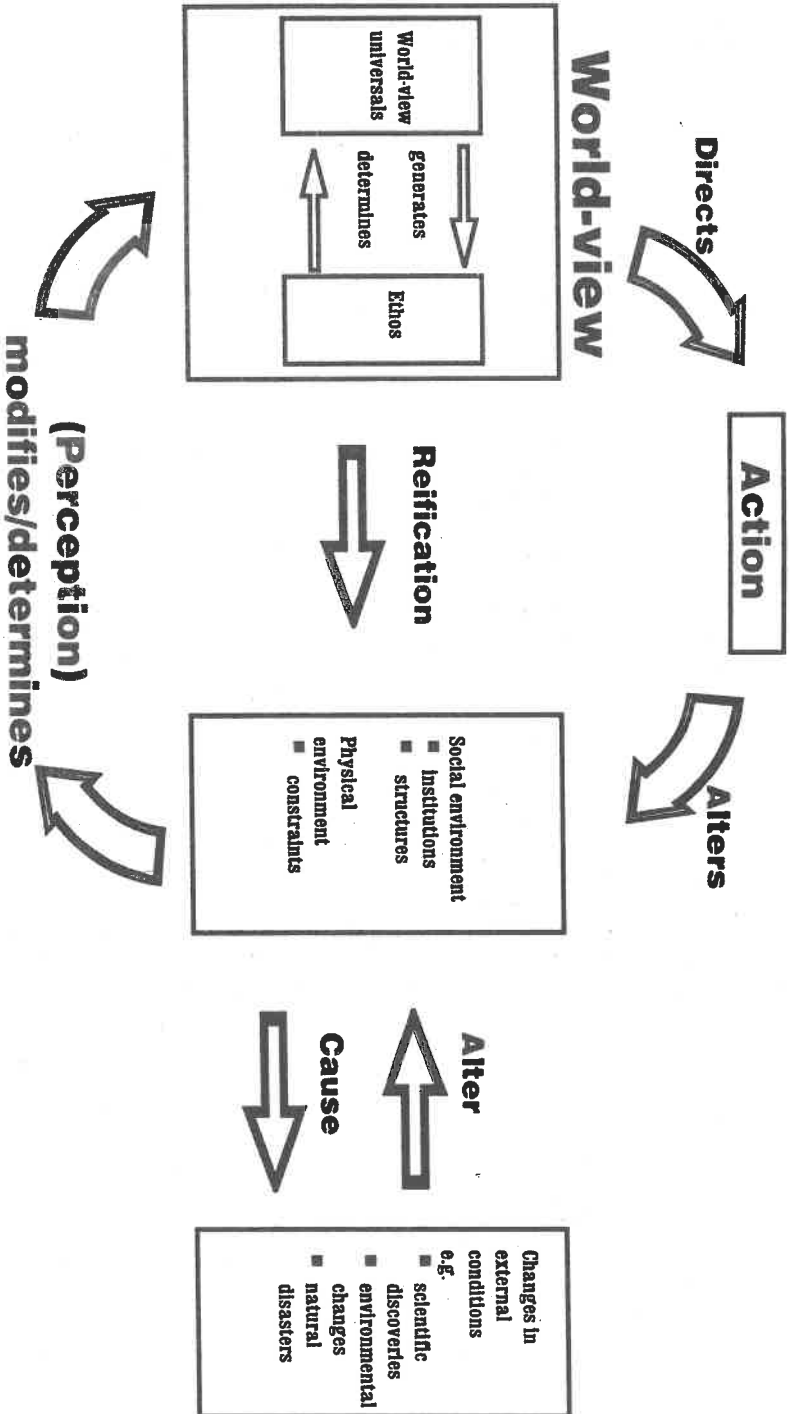


Figure 1: A systematic model of world-view analysis

4.1 Internal equilibrium

One of the theoretical assumptions behind systematic theories, which take world-views to be collections of basic assumptions about reality, is that 'a world view is a dynamic, more or less internally consistent system which demonstrates logical and structural regularities' (Kearney 1984:52). As a system, a world-view is itself - due to internal equilibrium amongst its elements - ordered by the dynamic interrelationships amongst its elements. That is, the content of various world-view universals tends to imply compatible and avoid incompatible propositions in both the same and other dimensions (see Kearney 1984:123-124). It is, for example, unlikely that within a strong collectivistic society one will find many people with high individualistic self-definitions (see Macnamara 1980:23 and Jones 1972:85 for more examples). It is equally unlikely that people who do not share a view of the world as being composed of numerous beings and powers will maintain protective rituals against such forces.

This feature suggests that world-views are usually more-or-less logically consistent and contain structurally integrated sets of assumptions. It has to be admitted that this integration is never entirely consistent for, as Kearney remarks, 'one of the most intriguing problems in world-view studies is to identify such inconsistencies' (1984:53-54). One can, however, say that particular configurations of world-view universals tend to clog together in fixed patterns. For this reason it is possible to identify, say, mythical or mechanical world-views (see, e.g., Van Peursen 1978:32-51). The urge towards equilibrium, furthermore, tends to include a dialectical or a feedback interaction between on the one hand world-view and on the other the social and the physical environment of a particular world-view.

4.2 World-view and environmental conditions

If a world-view is a set of images and assumptions about the world, what relationship do they have with the world which they represent? The variety of world-views suggests that there is no direct link between a world-view and the reality it represents. Therefore, we have to trace some of the interactive links between them in order to describe this relationship.

4.2.1 World-views depend both on the world and on human beings

Instead of arguing that ideas create reality or that they are but a shadow of reality, I take it that ideas and environment are independent but not self-sufficient forces (see Geertz 1973:361). This position is expressed by Hanson (1979:518) with the argument that 'truth and knowledge are doubly rather than singly contingent. They depend both on the world and on human beings as knowing subjects and makers of propositions'.

On the one hand, nature sets constraints on the physical and social conditions humans experience as reality. Things such as gravity, mass, space, seasonal changes and climatic temperatures are more or less fixed. People construct facts, but nature sets limits to the possibilities of construction (see Dieks 1994:73). To a lesser, but no less real extent, people inherit a social reality which over a period of time develops an existence and objectivity of its own. Such are institutional facts which people grow up with and which they take for granted and as real (see Searle 1995:46-51).

On the other hand, perception and world-views to a large extent depend on both the neuro-anatomy and neurophysiology of the sensorium and on the 'software' used. If humans had the visual acuity of the housefly or the sense of smell of dogs, we would have lived in totally different conceptual worlds (see Kearney 1984:43). By extension, people who have access to microscopes and telescopes see a different world. Imagine our world-views were we as humans sensitive to electromagnetic wavelengths. Perception and world-views are

also influenced by our 'software', that is the principles of logic and world-view universals we create. The presuppositions we hold are not like lenses which distort our perceptions of reality so that, if we take them off, we can see what the world is really like, Hanson says. They are 'more like eyes, without which we could not see the world at all. Flies, octopi and humans, having differently structured eyes, do not see the same. But that does not mean that the objects they look at are different in themselves' (Hanson 1979:521).

What one sees depends both on what one looks at and one's optical equipment and software (which shape the pictures). Therefore, contrary to the notion that world-views are mental constructs which originate and function only in cognitive structures, one has to realise that world-view analyses sufficiently demonstrate that world-views are embedded in a dialectical relationship with the physical and social environment. This brings us back to a remark made earlier, namely, that a world-view is a process instead of a static object. A world-view originates, and is maintained and changed, in a process of interaction with the ethos and environments of which it is a part.

4.2.2 A world-view reifies social and physical environments via an ethos

A distinction between world-view and ethos gives some analytical power to world-view analysis. Geertz (1973:127) helps us with useful definitions of each:

A people's ethos is the tone, character, and quality of their life, its moral and aesthetic style and mood; it is the underlying attitude towards themselves and their world that life reflects. Their world view is their picture of the way things in sheer actuality are, their concept of nature, of self, of society. It contains their most comprehensive ideas of order.

The distinction between world-view and ethos is more analytical than practical. 'The tendency to synthesize world view and ethos at some level, if not logically necessary, is at least empirically coercive; if it is not philosophically justified, it is at least pragmatically universal', Geertz says (1973:127). It is therefore not surprising that ethos is often not distinguished from world-view (see Jones 1972; Winthrop 1991:324). Nevertheless, as Dundes (1972:92) remarks: 'Although it may well be impossible to separate worldview from ethos, it could be useful, heuristically speaking, to consider the two *as if* they were independent of one another'.

The relationship between world-view and ethos is a circular one (see Geertz 1973:141) since one cannot decide what ought to be the case unless one has an idea of what the case is. Therefore, one cannot talk about world-view unless the discussion is informed by views on a cultural ethos; 'between the approved style of life and the assumed structure of reality, there is conceived to be a simple and fundamental congruence such that they complete one another and lend one another meaning' (Geertz 1973:129). For that reason there is a feedback relation where world-view generates an ethos and an ethos determines a world-view.

4.2.3 Social and physical environments determine or can modify a world-view

If, as argued above, world-views depend both on humans and on the environment, then one has to allow for world-views being influenced from the side of both physical and social conditions. This can be demonstrated by a number of examples.

The perception of time on the part of people living close to the equator is influenced by the minimal range of daily and annual variation they experience (see Kearney 1984:111). Similarly, the inhabited landscapes influence perceptions of space. Turnbull demonstrates

this with the story of the pygmy from the Ituri Forest in Zaire who once travelled with him. Coming out of the forest for the first time into large open spaces they came across a herd of buffalo grazing several kilometres away. What insects are those, the pygmy asked. Living in the forest with a limited range of vision, he had 'no great need to make allowance for distance when judging size' (Turnbull quoted in Kearney 1984:93). There is thus a sense in which the nature of the environment in part shapes the perceptions of it (see Kearney 1984:120-121).

In a similar fashion a dialectical relationship exists between people's world-view and their social organisation (see Kearney 1984:135). Douglas's research indicates that individuals in different settings are biased towards different cosmologies. Says Spickard (1989:153): 'People do not believe what makes no sense to them, and what makes sense to them depends on their social environment'. World-views exist and thrive within the constraints of not only the natural world, but also the social world within which they function.

4.2.4 A world-view directs action which can create or alter the social or physical environment

Not only are world-views representations of social and physical environments via the ethos and software applied, but world-views also direct human action, which results in the creation or alteration of the physical environment and in the construction or modification of social structures and systems.

Humans do not only live in a world which sets constraints on them, they also intervene in nature by means of their culturally constructed tools and machines. The physical environment is created to suit human needs or altered to satisfy new demands. This happens on a number of levels: from the level of the human body to the level of the outside natural environment which is shaped and changed to satisfy human needs. The large number of cultural tools developed in human history is an indication of the way in which the physical reality is shaped and altered. The moonlanding, which was a technological endeavour of high quality, was in itself also an expression of a particular world-view which takes the cosmos to be a huge machine which can be understood, manipulated and changed.

The large number of ways in which people over the world organise themselves in social structures and the variety of social institutions in human societies are evidence of the way in which people construct social environments. A culture's legal system or educational structures or economic organisation is an expression of its world-view. For example, within a world-view populated by invisible powers and beings, people create social structures and institutions in order to curb these and cope with their threats in daily affairs. The variety of social institutions and structures gives expression to the variety of world-views that people cherish.

4.2.5 External conditions can alter the environment while the environment can cause external changes

Outside influences - for example, scientific discoveries or insights - can alter either physical or socio-historical conditions which in turn will modify perceptions and thus influence a particular world-view. One such example is the development of literacy which, as Ong (see 1969:638) argues, is a precondition for scientific activities. Without the social institution of writing, which enables one to refer back to the ideas or research results of former generations, one can hardly expect an awareness of alternatives or the development of inquisitiveness. However, the development of full-scale literacy modified socio-historical

conditions and, in turn, reshaped world-views and the current ethos within them (see Horton 1967b:180-181).

One can only speculate at the far-reaching influences the development of modern computers is going to have on social institutions and structures and thus eventually on the world-views of people influenced by them. Natural disasters such as earthquakes, droughts and famine or plagues can also alter socio-historical or physical conditions and can instigate changes in world-views. These examples perfectly illustrate the feedback interaction between world-view and social and physical conditions.

4.3 Ethos - the fibres moulding world-view universals

It has been said that the ethos has to do with the style and mood of a culture's going about the world - that is, the values which inform and direct the logic and the assumptions that shape world-view universals. One can say it is the traffic police in a society, determining the flow, speed and mood of interaction within a culture. In fact, ethos is the fibre which keeps the other elements together and it is just as important (if not more important in some instances) than the actual content of world-view universals in determining the make-up of a particular world-view.

There is no complete list of fixed vectors describing ethos. The incomplete list of six dimensions identified by Jones (1972:85-86) (simplicity/complexity, static/dynamic, continuity/discreteness, immediacy/mediation, soft focus/sharp focus, and spontaneity/constraint), can easily be seen as personality traits instead of elements describing an ethos (see the criticism by Dundes 1972:92).

I shall therefore rather use the distinction between *open* and *closed* predicaments (Horton 1967b:155) and Kearney's (1984:81-82) identification of 'real' and 'unreal' as attributes directing the content of world-view universals, for demonstrating how ethos determines the make-up of particular world-views.

4.3.1 Open and closed predicaments

A 'closed' predicament, Horton (1967b:156) understands, is 'characterized by lack of awareness of alternatives, sacredness of beliefs, and the anxiety about threats to them' while the 'open' one is 'characterized by awareness of alternatives, diminished sacredness of beliefs, and diminished anxiety about threats to them'. A number of features that tend to cluster together support each of these predicaments. Contrary to a closed one, an open attitude is characterised by the acceptance of chance and alternative viewpoints, the need for experimentation and new questions and the willingness to live with mistakes and the possibility of falsification.

While the general notion is that people in a scientific world-view are believers in causal law, Wax and Wax (1962:183) remind us that it is people living in a scientific world who accept the possibility and logic of pure chance, while for the dweller in the magical world, no event is 'accidental' or 'random', but each has its chain of causation in which Power, or its lack, was the decisive agency. If a shepherd loses an animal, this is not regarded as a random event, the intersection of a revolving predator and a wandering herd, but rather, there is a cause: either the lack of protective Power of the shepherd or the superior malevolent Power of an enemy.

From a different angle Horton (see 1967b:169) demonstrates this principle with the feature in some arguments of protecting theories from being overthrown. This happens within a milieu where observed effects are linked to causes beyond the powers of common

sense to grasp. Faced with a theory postulating several causes for a given event, the theory remains protected in that an unlimited number of causes can be called on when needed. For example, when a disease is perceived to be caused by any number of angered spirits, neighbours or ancestors, it is unlikely to ever be overthrown since failure of healing can just be blamed onto another actor.

Closely linked to the previous feature is the one that, when a question is posed, it imperiously demands an answer. What is referred to as the experimental method is, according to Horton (1967b:172), the one-step-ahead feature of the scientific endeavour. Much time in science is spent in creating new experiences in order to test theories. Armstrong (1963:505) argues that

one of the most profound points of difference between the scientific and the non-scientific attitude is the scientist's disciplined willingness to live with open questions ... The world which lives by the magical *Weltanschauung* has never heard of most of the questions that trouble scientists; but when a question is posed in that world, it imperiously demands an answer.

Accidents happen not by chance, but by design; they are blamed on 'a pranking fairy, a malevolent witch, a punishing ancestor or a jealous neighbour' (Hanson 1979:527; and see Wax & Wax 1962:183). Anthropologists claim that they seldom come across a common disease or crop failure whose cause and cure people say they just do not know (see Horton 1967b:173; Hanson 1979:527). Armstrong (1963:105) points out that from 'the Congo to Eskimo-land we roll bones or palm-kernels, or stir tea-leaves, or inspect the entrails of sacrificial animals in order to avoid having to admit that we do not know'.

Without suggesting that the track record of science is unblemished, it seems as if a central feature of an open system has always been the irreducible notion of probability. The good scientist, Horton (1967b:174-175) says, is always willing to confess ignorance and probability or, in the words of Lett scientists 'claim provisional certainty based upon the cumulative results of a never-ending process of sceptical inquiry'.

One has to admit that the feature associated with this open approach is a latecomer on the human scene. It is not absolutely different from what precedes it but is systematically and structurally different (see Armstrong 1963:505). Structurally there is a difference between an approach where the results are predetermined by an answer and one where the desire for a particular result is subordinate to the desire to find something new (see Hirsch 1982:235-236 for a similar argument). It is worth remembering that it is science and not religion or tradition which has taught us that things are complex and difficult to understand (see Saler 1977:35).

While science as an institution and a tradition is the hallmark of some cultures fostering an open predicament, it does not imply that all scientists or scientific activities remain open-ended. The open system promotes a willingness to confess ignorance and probability (see Horton 1967b:174-175), to claim provisional certainty and to practise sceptical enquiry (see Jarvie 1986:243; Lett 1991:322). It is scepticism, Jarvie says, which 'knocks away the foundations' (1986:167) and which allows one 'to be ruthlessly critical not only of the ideas of others, but more especially, of one's own pet ideas' (Jarvie 1986:243). Within the realm of some sciences, 'a given proposition is "true" when it is both falsifiable *and* unfalsified; they say that it is "untrue" when it is *either* nonfalsifiable (in which case it would be propositionally meaningless) *or* falsified' (Lett 1991:322). Under the protection of this open system - while science accepts that all knowledge is tentative and subject to change - it is not accepted that all approaches to knowledge are equally useful.

While the features of an open system are often associated with science, they are not limited to strict scientific activities. A commitment to critical and sceptical attitudes and the continuous search for alternative viewpoints have a long history in the development of human ideas (see Kurtz 1983).

Since views on causality permeate both open and closed views, it is worth looking at it more closely. The notion of causality in classical physics operates with the framework of a world consisting of parts and arranging those parts according to causal laws (see Capra 1982:52, 75). In the view of quantum physics the idea of separate parts and their connectedness via causal laws is no longer maintained. Instead of the parts determining the whole, it is the whole which determines the parts, but not in a completely arbitrary fashion. Capra points out that changes to subatomic conditions are not brought about by local causes and that only the probability of spontaneous changes can be predicted. This feature indicates that the structure of matter is not mechanical (see Capra 1982:75-76). It is obvious that the common-sense notion of causality - every effect has a cause - has disappeared, at least from modern nuclear physics. As pointed out above, the same notion of causality is found in systems ascribing every event to a particular cause.

But does that mean the idea of causality as such should disappear from the analysis of human societies and behaviour? When talking about causality one has to distinguish between different meanings of the word. In classical physics it refers to directly measurable energy and physical forces while, in human matters, the parameters of thoughts about causality constitute meaning. It does not adhere to the principle of conservation of mass and energy as in all types of physical action (a mechanical, chemical, electronic or any other type of physical cause can never provoke a direct effect greater than itself) (see Kearney 1984:115). However, in many human activities - for example reading a book - the effect is not due to the transfer or conservation of energy and the act can have an effect unimaginable at the start. We should realise it is within some notions of space and time plus how we relate to the external world that specific senses of causality take shape (see Cobern 1988:37).

Often the impression is created that, with the emergence of the postmodern world-view, experimentation, quantitative methods and the scientific method have been rejected. There is a sense in which both the validity of the Cartesian-Newtonian approach and the continuous validity of the scientific method has to be confirmed. Classical physics still applies to a wide range of natural phenomena and continues as a theoretical basis for large parts of contemporary technology (see Capra 1982:196). As theoretical model it was abandoned, Capra says (1982:94), at the level of the very small (in atomic and subatomic physics) and in the very large (in astro-physics and cosmology). We should not forget that it was this model which made it possible for NASA to put a man on the moon (see Capra 1982:44). Furthermore, even in new physics the validity of the scientific method is confirmed. Quantum theory, Capra (1982:416) maintains, is still based on measurement and is, in fact, the most qualitative of all scientific disciplines. This is confirmed throughout his book. For example, he points out that the equivalence of mass and energy has been verified innumerable times, which resulted in physicists becoming so familiar with it that they measure the masses of particles in corresponding energy units (Capra 1982:81).

4.3.2 Classification system: Real and unreal

Very often an apparent agreement on the content of world-view universals results in incompatible practices or world-views. The reason is that the criteria used for classifying

and grouping together such universals, differ. One such example is the distinction between real and unreal. Kearney (1984:81) explains:

The existence of an 'unreal' domain results from the presence of images that have no presumed objective correlate, such as, for most people, the image of a unicorn. For many people dreams, images of demons, angels, astrological influences, or an international communist conspiracy, would also fall within their unreal domain. For others these are images with assumed objective correlates, and therefore a basis for acting towards these 'real' phenomena.

The real and the unreal, for many people, cross-cut two other categories, the natural and the supernatural. These are Western categories and the existence of the supernatural presupposes the existence of the 'natural', which does not exist in all cultures in the same way (see Saler 1977:31-32). Therefore, in some world-views, supernatural categories (such as 'god') are real and others are unreal (such as 'ghosts') while some natural categories are real (such as 'dogs') and others are unreal (such as 'dreams').

What these examples illustrate is that the attributes of domains are as important in defining them as the content we give them (see Kearney 1984:81-82). On the surface - that is, in terms of world-view universals - world-views may therefore be very different (or very similar) but, once the classification system and ethos is taken into account, the differences (or similarities) appear (or disappear).

It should be realised that the above elements (open and closed predicaments and the classification system) which stamp world-view features are attitudes that set the mood and tone within particular world-views. This supports the idea that in world-view analysis the content of particular world-views should be determined not in isolation but within the context of all other elements and in close cooperation with the particular ethos. Such an approach might be helpful in moving closer to a point of comparing opposing world-views in a meaningful way.

4.4 World-view universals

A number of world-view definitions agree that a world-view attends to the way a person in a particular society sees him-/herself in relation to all else (see Redfield 1963:270; Jones 1972:83; Smart 1983:54; Kearney 1984:41; Cobern 1988:13). Defined more precisely, that is the self in relation to others (society) and nature (or cosmos). The latter can again be seen in terms of the physical universe or space and time dimensions.

While, as has already been suggested, the content of world-view universals is the result of a complex interplay of perceptions, actual reality, and ethos, neither the categories nor the content of world-view universals are fixed. The content of particular universals, Kearney (1984:66) says, are comparable to tools: 'they vary cross-culturally, but are adapted to local environments for the most part for pragmatic purposes'. Within each category a wide range of possibilities exists - most of which are mutually exclusive.

Instead of trying to be exhaustive in dealing with these world-view universals, what follows will be suggestive in stimulating an appetite for the variety of ways in which human beings see themselves in relation to all else. The fascination starts when these elements are seen not only for their content but for the way in which they tend to form configurations, identifiable as particular world-views.

4.4.1 Self and other

In talking about the *self* as a world-view universal, at least two aspects can be distinguished: the awareness of the self as distinct from the surroundings and, secondly, the notion of a relationship between the self and the surroundings (see Kearney 1984:68). Both aspects will become clear in the distinctions suggested here.

The *individual self*, seen as a distinct entity, isolated not only from other individuals but also from the outside world, is a recent development in human history. It has coincided with a development in social structures: the transition from tribal to class societies (see Kearney 1984:75). It carries some distinct features of a person for, as Geertz (1979:229) says,

[t]he Western conception of the person as a bounded, unique more or less integrated motivational and cognitive universe, a dynamic center of awareness, emotion, judgement, and action organized into a distinctive whole and set contrastively both against other such wholes and against a social and natural background is, however incorrigible it may seem to us, a rather peculiar idea within the context of the world's cultures.

This view has undergone several developments, such as the view of a dialogical self (see Taylor 1991) or a fluid self (see Tolbert 1995:312). Taylor (1991:311) quite convincingly argues that identity is never simply defined in terms of individual properties but in terms of the dialogical space occupied. Self-understanding and identity is also embodied and the way we act and move can encode components of our understanding of self and world (see 1991:309). The idea of the fluid self picks up on this non-static way of acquiring a perception of the self.

As a *community self* (or dyadic personality) in a large number of cultures, the individual's self-definition is closely connected to that of a social group. This is fairly common amongst corporate kin-based societies. It was especially in the historical context of the ascendancy of the idea of privately (individually) owned property and the growth of a market-based economy that the way was paved for this manner of defining the individual. An example can be found in the words of Mbiti: 'I am because we are; and since we are, therefore I am' (quoted in Kearney 1984:74). An individual's identity (and well-being) is determined not only by what members of the group do towards one, but also what they think about one (see Kearney 1984:74-75).

In some forms of mysticism the discontinuities between the self and the rest of the world are dissolved and the individual experiences being as identical with the cosmos (see Kearney 1984:70; Van Peursen 1978:40-41). The self coexists with the natural world - that is, an *ecological self*. A related approach sees the identity of humans closely tied to belief in an omnipotent deity (see Smart 1983:55; Kearney 1984:133), such as in some forms of theism, while in an ontology referred to as animism, the world is inhabited by powers and gods which control the cosmos and the individual (see Smart 1983:56). In many of these cases the self is inseparable from such entities.

The notion that words have magical powers which can affect events or gain control over things is an example of the self being bound up with the community or environment (see Horton 1967b:159-160). Harm can be done to someone or something by simply uttering certain words or control can be gained by using certain words or names. Horton argues that the magical power of words is continued in modern scientific cultures under the heading of idealism. That is, the belief that words and ideas (language) shape and control reality - a multiplicity of languages results in a multiplicity of realities and a change of language means a change of things. The 'words over things' has been replaced by 'mind over matter'.

It is the rule rather than the exception that these notions of the self are becoming blurred, and that overlaps, especially at the boundaries, do take place. Nevertheless, they represent tendencies in the field of human self-definition which cannot be wished away. For example, the dialogical self, where the self is bound up with the dialogical interaction within a community, is explicitly not the same as the community self. It is not a 'self', developed through the attitudes of others to the 'me', but it arises within conversation (see Taylor 1991:312). In other words, what becomes internalised as the 'self' is not the reaction of the other but the whole conversation. The dialogical self has developed alongside practices of radical reflexivity in the modern world (see Taylor 1991:304) and is therefore very different from the community self in the traditional world.

Furthermore, it already has become apparent that notions of the self, and its relation to others, are closely linked to other equally important assumptions in a specific world-view. The one cannot exist without the others. Therefore, not only the definition of the self, but also notions such as the well-being or illness of a person are closely linked to other elements in a world-view.

4.4.2 Nature

The term *cosmos* is used for the physical universe (see Smart 1983:55) and perceptions about the cosmos cover questions about its origin, nature, composition and layout.

Within the realm of traditional world religions, a number of different pictures of the world's origin and nature are found.

In the case of theism, the cosmos is the creation of a divine mind. In the Hindu tradition it is seen either as the body of God or, alternatively, it is an illusion beyond which is ultimate reality. In Buddhism, it is both uncreated and impermanent. In Taoism, it is governed by a spiritual principle. In polytheism, many divine beings are in interplay, often under the leadership of a High God.

(Smart 1983:59)

Science gave us the Big Bang model of a 15-billion-year-old universe, whose vastness is difficult to comprehend (see Bruuck 1983:44; Barrett 1993:6-9) and which is in a process of continuous expansion (see Bruuck 1983:44-45).

Coming to the nature and composition of the universe, Searle (1995:7) maintains that the following is a fair picture of the ontology created by modern science: 'We live in a world made up entirely of physical particles in fields of force. Some of these are organised into systems. Some of these systems are living systems and some of these living systems have evolved consciousness' (see also Bruuck 1983:46-47; Ellis 1994:19). The basic building blocks of the cosmos in many other world-views, for example those with a power ontology, is the notion that the world is composed of beings - some of which are human and others are 'nonhuman' while the dynamics of such a world are power (see Wax & Wax 1963:501). Such was the view of many first-century people who believed that, besides the myriads of beings and entities occupying their world, 'celestial entities such as stars were equally regarded as living, "personal" beings' who had an influence on human life and history (Malina 1995:6). Within this view, power is an intrinsic feature of the natural world and, without a proper balance of power, the universe would lose its distinctive character (see Wax & Wax 1962:182). Without access to power or proper protection against malignant forces, the individual is vulnerable.

Cosmologies, by definition, are statements about space and the layout of the cosmos. At least geo-, helio-, galaxy-centric - and even non-centric systems are - in this regard, well

known in the history of humankind (see Kearney 1984:132; Malina 1995:3). Within each of these cosmologies a number of options are available which give expression to the combination of components involved in each case. Very often a single element can overrule the whole system. A good example of this is found in the story told by the anthropologist, Geertz. During a visit in Aceh (Sumatra) in 1971 he was confronted by an *ustad* (a 'master' or 'professor' in Muslim circles) who asked him whether he believed that the American astronauts had in fact landed on the moon.

The *ustad* said that no Muslim could believe it because of a tradition from the Prophet, that is, a hadith, concerning Noah's flood. The prophet is held to have said that an enormous ocean lies between the earth and the moon and this was the source of the flood. If the Americans had gone to the moon they would have put a hole in this ocean and a flood like Noah's, drowning us all, would have ensued.

(Geertz 1995:83)

According to the *ustad*, the astronauts could not have gone to the moon, for 'the one thing that is impossible is that the Prophet could be wrong' (Geertz 1995:83). The main point of the example is not whether the *ustad* is correct in that no Muslim can believe the moonlanding (I think some do, in fact, believe it), but that his cosmology is fundamentally shaped by a religious core element.

A final example will demonstrate how cosmologies really are the culmination of a variety of features which people take as real about their worlds. While most people in the Hellenistic world adhered to a geocentric universe, some did think of the earth as a sphere. Most people, however, accepted 'a three-story universe in which a flat round earth is vaulted by a domed solid substance, the heaven or heavens, on which sun, moon and stars are fixed and which has openings through which the celestial waters can provide rain, while a region in the nether-world is placed below the earth' (Mauser 1987:32; see also Malina 1995:3-4). This ancient cosmos was not only densely populated by an enormous supernatural population - gods, angels, demons, spirits of the dead and so on (see Smith 1978:68-69) - but these good and evil spirits could enter and control the world of sense perception (see Sanders 1993:141-142).

It should be obvious that cultural activities, like space programmes, DNA research, exorcisms and healing practices, to name only a few, are all related to very definite views on the nature, composition and layout of the natural world.

4.4.3 Time

There are many ways, Geertz (1973:389) claims, in which humans make themselves aware of the passage of time. Somewhere between the extremes of 'time is money/every second counts' and a lack of a concept of time one finds the large number of images of time in world-views. At least two aspects regarding conceptions of time can be distinguished: time orientation and images of time.

Time orientation varies between past, present and future orientations or some combinations of these (see Kearney 1984:95-96). In a future orientation goals are set to be realised in the distant future (becoming a doctor or a lawyer). Within many cultures the future is unreal, uncertain and intangible. What matters are immediately experienced events. In a past orientation children are raised with an urge to keep their ancestors and tradition in focus. Time orientation further manifests in things such as filial piety and a strong sense of family tradition. In a present orientation children are urged to pay attention to their present experiences and the people around them (see Malina 1989:5).

Both images of time - oscillating and linear time - are present in all world-views, but to different degrees (see Kearney 1984:98-102). The first image captures the repetitive phenomena in life and nature (such as days, moons or seasons and clocks) and the latter acknowledges that some things in life are irreversible (such as the lifespan of an individual from birth, growing up, ageing and dying). Within the linear metaphor of time, time is like an arrow coming out of the past, passing us by in the present and heading towards the future. Although in most world-views both conceptions of time function in different configurations, one usually tends to dominate.

One should furthermore add some dimension to these conceptions: that is, depth and range. If one encounters a future orientation, does it cover one generation or a longer period into the future? The same can be asked about the past or tradition. Where tradition plays a significant role, a deep sense of past time occurs. One can also ask about the rate of time - that is to say - the units used for measuring time. Punctuality and scheduling articulate the need for evenly flowing quantifiable linear time which can be measured by the clock in industrialised societies. The clock, not the steam engine, Mumford says, is the key machine for the modern industrial age (in Kearney 1984:103). An alternative is a task-orientated image of time where the rate of events is determined, for example, by the pastoral tasks to be completed. The Puritans gave Western Europe its future orientation while the factory owners of early industrial capitalism transformed time into a commodity by buying labour in units of days, hours and minutes (see Kearney 1984:103; Malina 1989). Perhaps the most artificial image of time in the history of humankind is the mechanical, even flowing of linear clock time invented by Western Europeans.

The interconnectedness of world-view universals can also be demonstrated by pointing out the conditions needed for a future orientation of time. For such an orientation to be realisable, 'there is a necessary condition: the survival needs of the present such as food, clothing, safety, shelter must be assured' (Malina 1989:7). These things hardly ever exist in peasant societies, except for a small elite group. For this reason it is necessary to rethink the meaning of eschatology (end time events) in early Christian thought, which in all probability did not express a future orientation but wished to express the forthcoming events to be realised by divine intervention in the present age (see Malina 1989; 1995:xiii-xiv, 11, n 11).

5. Concluding remarks

The identification of the stuff world-views are made of is a first theoretical step in dealing not only with the phenomena of world-views but especially with world-views in opposition. It needs to be complemented by an equally important theoretical question - namely, in what sense are world-views real? In other words, are all world-views of the same standing and can they all claim legitimate and valid representations of reality in a broad sense? One's position on these issues is just as important in dealing with world-views in opposition as is the attempt to sort out the stuff world-views are made of.

Such theoretical issues should furthermore be supplemented by the actual analysis of specific world-views on a comparable basis. The model presented here can serve as a framework for such an enterprise. Being a systematic theory of world-view analysis, this model provides some advantages over thematic theories and has, to my mind, the potential of serving as a basis not only for world-view analysis, but also for comparing world-views and dealing with world-views in opposition.

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