FROM TECHNOLOGY TRANSFER TO INTERCULTURAL DEVELOPMENT

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Understanding Technology and Development in a Globalising World

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Preface and Acknowledgements

In one of his most well-known publications, *The Sciences of the Artificial* (1996, 3rd ed.), the Nobel laureate Herbert A. Simon (1916-2001) introduces a powerful imagery in his search to gain better understanding of the psychology of thinking. His hypothesis is that human thinking regarded as a behavioural system can be compared with the path of an ant on the surface of the beach that he describes on page 51 as follows:

> We watch an ant make his laborious way across a wind- and wave-moulded beach. He moves ahead, angles to the right to ease his climb up a steep dunelet, detours around a pebble, stops for a moment to exchange information with a compatriot (…) He has a general sense of where home lies, but he cannot foresee all the obstacles between. He must adapt his course repeatedly to the difficulties he encounters and often detour uncrossable barriers.

Looking back on the long-winded process through which this book came into existence the editors have to confess that from the earliest beginnings of the project a couple of years ago there was indeed a "general sense of where home lies", but also – luckily we would say – that they could not foresee "all the obstacles between". When we write these lines the authoring process has successfully come to an end and we are proudly looking forward to soon have the published book in our hands. Under the recognition that the project has required much effort from all participants involved – authors, administrators, and reviewers – we like to record the following.

First of all we like to thank the International Institute for Development and Ethics (IIDE) for the vision to give generous support to this project. Financial support enabling a number of peer seminars in Africa was received through the Study Group on Science, Technology and Society at North-West University (Potchefstroom Campus) and the NOVA Institute that is linked to the University of Pretoria. Our sincere thanks go to both organisations. We also have to mention Willem Ellis from the Africa Office of the IIDE who played a leading role in getting the African authors and institutions on board, in the coordination of all the role players and in streamlining a range of processes. Applying the above-mentioned quote we believe that he often showed a remarkable gift to sometimes "climb up a steep dunelet" or "detour around a pebble".

We also acknowledge the great support of the two cooperating publishers. Rozenberg has facilitated a thorough double-blind peer-review process that has included South African and Dutch scholars. We wish to thank these anonymous referees for their sympathetic-critical comments and their suggestions to improve the separate contributions and the whole set-up of the manuscript. SUN MeDIA Bloemfontein has professionally assisted in the final editing process and in making the manuscript ready for printing.

Finally, the editors wish to express their thanks to the authors and to each other for collegial cooperation. It was deliberately chosen for an equal part of the editors in the whole process of collective writing. This has been made visible in choosing the alphabetical order of their names.

Jan van der Stoep and Sytse Strijbos (The Editors)
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Introduction: From Technology Transfer to Intercultural Development

Jan van der Stoep and Sytse Strijbos

Technology and development

We live in a world where distance no longer determines who your neighbour is. Due to globalisation a new interaction between societies and civilisations takes shape. In today's world people and cultures not only encounter, but also permeate each other. Communication networks, migration, international trade and tourism lead to a situation in which in each local situation a variety of cultural traditions is manifested, and in which at the same time each local culture has a global outreach. It goes without saying that modern technology is an important factor in the process of globalisation. The economist Jeffrey D. Sachs (2005: 41) even holds that

> ... the single most important reason why prosperity spreads, and why it continues to spread, is the transmission of technologies and the ideas underlying them. Even more important than having specific resources in the ground, such as coal, was the ability to use modern, science-based ideas to organize production.

According to Sachs the scientific revolution and the rise of industrial society have been decisive for development and the spread of economic growth. The best way to raise the worldwide standard of living is therefore by technology transfer, the diffusion of modern technology around the globe.[1]

At the heart of this view is the notion that third-world countries are 'behind' the rich countries and that they can fight 'their' poverty through modernisation. Furthermore, this modernist view proceeds from a 'narrow' concept of technology, regarded as one factor alongside other factors that affect development (see chapter 8 in this volume by Strijbos). In contrast with Jeffrey Sachs and other advocates of 'technology transfer' programmes of development this book is based on a 'broad' concept of technology aiming to further explore the ideas elaborated in a previous study in a book called *In Search of an Integrative*

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1.   The concept of technology transfer has a double meaning. It may refer to processes of patenting and licensing innovations, but also to "development projects that attempt to aid impoverished countries by exporting existing technologies to them" (Selinger, 2007: 13). We make use of the second meaning.

Vision for Technology, edited by Strijbos and Basden. Such a broad view on modern technology leads also to a broad view on development that should be understood as a global process encompassing the so-called developing as well as developed countries. Technology in its modern science-based form is thus not just a more or less important factor within local society, or just a set of artefacts that we find in our surroundings; technology is the foundation of modern global society forming a comprehensive framework for its further worldwide development. In other words technology has become the habitat of humankind and in this respect there is no way of return anymore for all people and cultures, let alone that such a return to the past would be desirable. The crucial question facing us today is: "How should we live together as good neighbours in one technological world where its future is dependent on the common natural resources of our planet?" Or, a more focussed question following from this that we will address in this book: "What is the role of cultures and worldviews that meet each other today in further developing our technologies in a globalising world?"

Households, practices, and intercultural development

The idea for this book and for addressing this question has been born in a dialogue between the authors of *In Search of an Integrative Vision for Technology* (2006) and a group of scholars and practitioners from South Africa whose research and development activities focuses on problems of traditional African society and culture. Although there existed awareness in the writing of the earlier book that the search for normativity for our technological society should encompass the different cultural spheres of the world, no attention has been paid to the problem of interculturality. Focussing on the development of technology in the 'developed societies' the emphasis was laid on finding a basis for *interdisciplinarity*, bridging the gaps between the sciences and humanities as well as between theory and practice. According to the vision that has been elaborated (Strijbos and Basden 2006: 5-8) not the autonomous dynamics of technology as a free-flying projectile should determine the future of our society, but guidance has to be provided by a normative perspective on technology for the 'common good' of all people and cultures. Following further this line of research the current book aims to address explicitly the *intercultural* dimension of technology in our globalising world.

Aiming for a normative vision for technology and society *In Search of an Integrative Vision for Technology* (2006) provided an interdisciplinary conceptual framework in which professional practices, such as education, science, business enterprise and medical care have a key role. It was argued that technology is only enriching as long as it serves the human and societal internal purposes of these practices. In the dialogue with the authors from South Africa who are involved in the writing of the current book we became aware that the view on 'technology' and 'society' underlying *In Search of an Integrative Vision for Technology* presupposed a modern, differentiated type of society. Although there was an awareness that the search for normativity in the various practices is dependent upon the cultural context, the emphasis was on the embedding of these practices in modern society and not on what modern science and technology may learn from traditional society and culture in the so-called developing countries. In contrast with the earlier study the African colleagues focussed on the importance of the household for the people in Africa and the improvement of their lives and society.

When we talk in this book about households we definitely think beyond the modernistic concept of the household as an economic unit of consumption. We agree with thinkers such as Friedmann (1992: 45-8) who emphasise the productive side of the household in which young people are raised and a variety of social functions is realised. The household has an important role in society as a guardian of tradition and culture. It is for this reason that antiglobalists such as Jerry Mander and Edward Goldsmith (1996) are so concerned on the health of households in native societies in which the elders transfer the experience of the previous generations by telling stories to their children, preparing them in this way for their role in the broader community. Another author, Albert Borgmann (2003: 117-28), points out the importance of the culture of the word and the culture of the dining table in family life that is endangered in modern societies' world due to the dominance of technical devices such as televisions, computers and microwaves.

The importance of the household that was emphasised by our African colleagues was therefore an important contribution to gain better understanding of intercultural development. We want to avoid a vision in which households are just the passive victims of modernisation. The household or *oikos* is already known from time out of mind and is an integral part of our human condition. It also influences history in a much more fundamental way than is often assumed. One may even argue that it was not industrialisation that produced the nuclear household in modern western societies, but just the opposite way around. Because of the late marriage system in western Europe nuclear families already existed in the Middle Ages and also functioned as a catalyst for industrial transformation (Hartman, 2004: 8-12).

It is true that although the family is the most important institution in society where one generation passes on its values to the next, ensuring in this way the continuity of civilisation, family norms have disintegrated with astonishing speed in the so-called developed countries of the West. However, we believe that this is not an inevitable consequence of a process of modernisation. Jonathan Sacks (1997: 23) and others[2] remind us that one of the fathers of the modern industrial age, Adam Smith, has stressed the importance of the family as a necessary complement of the free market regulated by an 'invisible hand'.

> Smith believed that the market was sustained by institutions whose inner logic was the reverse of the market, above all else the family. It was here that we learned sympathy and fellow feeling, sociability and altruistic love. The family is the oil in the engine, the fluid, which saves the system from frictions, which would destroy it otherwise.

Overview of the book

The set-up of the book follows the key themes that we have noted above. Part I contains a variety of studies on technology and development. Most chapters in this part are mainly of an empirical nature. The first four chapters focus on the encounter between traditional society and the modern world and relate to particular experiences in South Africa. How does the interaction between traditional households and modern practices work out? While

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2. In a working paper Nerozzi and Nuti (2008) examine in detail Adam Smith's vision of family life and the role of the family in society as it stems from the *Theory of moral sentiments*.

these chapters circle around the question how linkages can be shaped between a specific science-based practice of modern society and the indigenous cultural context of traditional society. The two final chapters in this part deal with the shaping of two global modern practices, namely business and defence. In part II the idea of intercultural development will be explored further. What does intercultural development exactly mean? And which role does technology play in the encounter between traditional and modern culture? These explorations are more of a theoretical nature. They reflect on intercultural development from a normative point of view.

Part I: Between Households and Practices – Empirical Studies

The South African township is characterised by low-cost formal houses as well as the 'shack' that consists of corrugated iron, plastic and cardboard. It is typical for the kind of problems facing intercultural development that residents of these townships experience high levels of fear. The prevalence of fear leads to unhealthy and uncomfortable usage patterns such as keeping windows closed at night. This has serious health effects, especially where coal or biomass is used as a domestic energy source. Only when people feel safe can a house become more than a shelter; truly a place to be at home. Attie S. van Niekerk argues that fear, as it manifests in contemporary low-cost housing in both rural and urban communities, is a product of the dysfunctional interaction between the modern Western, global worldview and the traditional African worldview. In his view the key to the solution of the problem is to design housing patterns and technology that facilitates their functional integration. This requires an understanding of the meaning that the different role players give to the different factors and interactions involved.

Systems methodology is a field that provides helpful tools for development practitioners in preparing interventions. Vice versa development practice can provide an input for the further elaboration of a methodology. A chapter authored by Roelien Goede, Andrew Basden and Riaan Ingram aims to draw lessons from development practice for the practising of disclosive systems thinking; a newer stream in the systems field.

Debra Meyer examines how to involve a local community in implementing a modern techno-scientific practice that aims to provide HIV/AIDS support. The main thrust of her argument is that the community must recognise its own problem (in this case health), must be willing to do something about it and must be ready to invest time and resources to address the problem.

Henk Jochemsen and Carolus Reinecke also look at the conditions for implementing a complex scientific-technological intervention in providing community health care. They argue that an unreflected introduction of new technologies and knowledge in communities, especially in developing settings, can harm their sense of identity and bring about a social and cultural disruption. For that reason it is essential, they believe, to include a societal investigation as an integral part of techno-scientific research, such as a metabolomics/genomics research project as discussed in their paper. The paper provides a critical discussion of three models for a trajectory of social research investigating ethically responsible implementation of modern biomedical technologies in a context of a 'developing' country.

Darek Haftor investigates the business performance of a global company. His paper is a case study of a marketing and sales organisation in the Nordic countries of a global pharmaceutical company headquartered in the United States. In order to properly handle the global-local

relationship it was investigated how to achieve business success in the Nordic countries. The paper concerns local differences in economically advanced countries, also showing that in the context of these societies local cultural differences remain and sometimes have to be bridged. From this, one can learn that the process of modernisation and globalisation is not necessarily homogenising the world as is often claimed by those critical observers who make a plea for a return to local and cultural diversity.

Christine van Burken discusses security as a burning problem in today's global society. In her paper she criticises the dominant social constructivist approach because it blurs in her view structural differences between the practices of defence and development. As an alternative she argues the need for shaping an alliance between these sectors.

Part II: Intercultural development – Theoretical Reflections

Fundamental for our view on 'intercultural development' is that we believe that no culture is so bad that there are no good things in it anymore and the reverse that no culture can claim to be the ultimate expression of human life. In the encounter between cultures there is a need on both sides for sifting out the weak points and cherishing what is good. Therefore development in a globalising world, locally and globally, is a reciprocal affair.

As Sytse Strijbos will point out in chapter 8 the real problem of development lies on the side of the developed countries, that is to say in the developmental movement of a culture in which technology has gained a central position as a neutral tool. Such a view reflects "the attempt to impose an artificial unity on divinely created diversity" (Sacks, 2002: 52) and leads to a one-sided development process in which a technological mind-set is imposed on other cultures. In the succeeding chapter, Andrew Basden, Carole Brooke, Richard Russell and Philip Holt critically discuss the most important technology that underlies the shaping of such a global society, namely information technology. The authors convincingly show that the assumption that technology in general and information technology in particular is entirely secular is incorrect. In their contribution they distinguish three types of religion-technology relationships and discuss these in some detail.

In the final two chapters that bring this book to a close the idea of intercultural development is further elaborated. Jan van der Stoep takes an own stance in the debate between cosmopolitanism and multiculturalism. Although he acknowledges that there is a valuable element in the social constructivist approach of cosmopolitan thinkers in understanding 'culture' he supports multiculturalism that intercultural development is not an outdated concept. Sytse Strijbos develops in the final paper of this book an approach that is called intercultural-disclosiveness. In this approach he aims to overcome the dominant technological mind-set as embodied in technical-instrumental and participative-communicative approaches in development.

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PART 1

Between Households and Practices – Empirical Studies

The Broken Circle: The Prevalence of Fear in Low-Cost Housing in South Africa

Attie S. van Niekerk

Introduction

The South African township is characterised by low-cost houses as well as the so-called 'shack' that consists of corrugated iron, plastic and cardboard. In several research projects high levels of fear have been encountered among residents of these low-cost houses, in both rural and urban contexts (Holm, Murray and Pauw, 2005).

The high levels of fear among residents of low-cost housing present us with a combination of problems of a technical, socio-cultural and religious nature. Modern science, as it has developed since the time of the European Renaissance, has not been very successful in addressing this type of problem. Modern science has been remarkably successful in unlocking the secrets of nature and in utilising the potentialities of nature, through a strong emphasis on the superiority of reason. But this emphasis has had a reverse side: scientists tended to dismiss all the non-rational, yet vital elements of human life and reality, such as the destiny of humanity, human freedom and spontaneity (Prigogine and Stengers, 1984: 34-5).

From early on, African writers have pointed out that the rationalism of Western culture – also of Western missionaries – was alien to the African experience. Africans combine political, cultural and religious resistance to Western rationalism; maybe because Western rationalism seems to be closely associated with the desire to control and dominate. Such resistance can be traced back to African writers early in the twentieth century.

African writers have repeatedly pointed out that there are important differences between Western and African thought patterns: in African tradition, causality may be understood in a magical way, because spirit permeates the whole universe to such an extent that the self and the world, mind and matter interpenetrate each other and cannot be distinguished (Anyanwu, 1984: 87-93); Ibe Nwoga (1976: 17-8, 21) contrasts traditional Western man's more detached, analytical mode of understanding with traditional African man's more holistic, instinctive mode of understanding.

In this chapter I will argue that the prevalence of fear in low-cost housing is a result of the dysfunctional interaction between the modern, Western or global worldview and the traditional African worldview. The different worldviews meet, interact and combine in the

household[1], and the end result is a rather chaotic manifestation in the household: in the architecture, the social relations, and the interpretation of illness. These aspects are so intertwined that an architectural problem (how to design an energy-efficient house) is related to a religious problem (why do Christians fear that witches will fly through the window?) or maybe to a psychological problem (is such fear a function of conflict with other people?).

We will first discuss the lack of adequate understanding of the household problem by policy makers, illustrated by a number of examples: the housing policies of the apartheid government, the protests of Africanists, the over-confident advice of modernists, and the housing policies of the present government that is formed by the ANC Alliance. This is followed by a few case studies, some from our own research that tells us something of the 'view from the inside', i.e. how residents of the low-cost houses experience their lives. The article ends with some theoretical reflections and a conclusion.

Housing policies

It is assumed that both the worldviews mentioned above are extremely powerful, but that a good understanding of their interaction may reveal opportunities for strategic interventions that could influence the nature and direction in which things develop. The search for a better understanding of these dynamics is pursued by analysing what now appears to be the inadequate understanding that various decision makers have had of the housing problem over many decades.

The problem is not only qualitative, but also quantitative. There has been a huge housing backlog in South Africa for decades. It is interesting to compare the way in which the apartheid government (1948-1994) tackled the problem to the way in which the ANC Alliance government has tackled it from 1994 until today. There are more similarities than one may have expected. The apartheid government launched a massive housing programme, but it was based on an inadequate understanding of the housing problem. In the seventies, Africanists initiated protests against the apartheid government. They offered insights into the reasons for black resistance. These insights were ignored by both modernist reformers and eventually the ANC Alliance government (1994-today).

Apartheid

Apartheid is well-known for its oppression and injustice, but there was also an element of idealism. In the 1950s the National Party government, that came into power in 1948, embarked on a massive programme to replace the urban slums with, in total, 352 000 better houses. The Dutch sociologist Mia Brandel-Syrier describes it in her book Reeftown Elite (1971: 5) as

> … a housing project of truly mammoth proportions upon which, up to the end of 1960, the government had spent a sum of over R200,000,000 by 1962 … it was hoped there would be no more slums in the urban areas.

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1. A household can be seen as a micro-system formed by numerous elements that interact and combine to form a whole, showing properties that are properties of the whole, rather than properties of its component parts.

The educational and medical services were also expanded significantly. This aspect of the National Party policy can be compared to the kind of high ideals expounded by the president of the USA, Harry S. Truman, who announced in 1949 that his country would make its resources and technology available to the 'less fortunate' nations of the world. In South Africa, as in the rest of Africa, the development industry that followed as a result was of a tremendous magnitude.

All this expenditure was not, however, based on a proper understanding of the actual dynamics in and the needs of the communities. Development was equated with modernisation the Western way. The prominent American economist J.K. Galbraith (1980: 51-2) attributed the failure of Western initiatives in Africa and Asia to the tendency of Westerners to prescribe the solutions that they understand and have available, but without seeking to understand the actual problems first.

This statement is supported by a remark by Timberlake (1985: 197-207) that all development efforts in Africa had failed:

> The African poverty trap, in a word, treats competing doctrinaire ideologies with much the same contempt.

These ideologies did not share the same political approach, but they all saw develop-ment in some or other way as modernisation.

Africanists, esp. in the 1970s

The African literature of the twentieth century, also in South Africa, protest against both, the political oppression and the cultural domination of colonialism and apartheid. Identity was a very central theme. This shows that Africa's problems must not only be seen as political, but also as cultural. Modern African literature has grown largely from tensions existing between African and Western cultures. In 1971 Oswald Joseph Mtshali published his *Sounds of a Cowhide Drum.* This bundle of poetry marks the transition from coveting the Western lifestyle to the proud assertion of African identity in the early seventies. On page 25 Mtshali writes:

> I don't want to go to heaven when I'm dead.
> I want my heaven now, here on earth in Houghton and Parktown;
> a mansion
> two cars or more
> and smiling servants.
> Isn't that heaven?

But on page 68, the last page, there is suddenly a different mood, the mood of black consciousness:

> Boom! Boom! Boom!
> This is the sound of the cowhide drum...
> I am the spirit of your ancestors,

habitant in hallowed huts,
eager to protect,
forever vigilant.

Let me tell you of your precious heritage,
of your glorious past trampled by the conqueror,
destroyed by the zeal of a missionary...

Boom! Boom! Boom!
That is the sound of a cowhide drum —
the Voice of Mother Africa.

The latter mood is the dominant theme of the seventies in South Africa. It remains important in modern African literature all over Africa. The Africanists have articulated an important element of the feelings of African people – some even verbalised the deep ambiguity, that people want modern Western culture as well as African culture and hate them both at the same time, but they did not present a way forward, an analysis of how these two could be taken up in a higher unity that encompasses both. Their voice was, in any case, ignored by powerful role players in the new South Africa.

Modernists

During the political transition of the early 1990s a scenario team, consisting mostly of white males, academics and business people, produced the Nedcor-Old Mutual Scenarios (Tucker, Scott and Bruce, 1992).

The team felt that a successful transformation from apartheid to democracy was dependent on tangible improvements in the conditions of the daily lives of the masses (Tucker *et al.*, 1992: 12-20). Fast political transformation required fast and visible results on the socio-economic level. The Nedcor-Old Mutual Scenarios proposed a 'change of gears' approach, in the expectation that modernisation would bring about the desired economic growth, development and social stability. In spite of the failures of development efforts in Africa, more of the same medicine was prescribed for the new South Africa. It was much easier to accept the simple problem definition that apartheid was the problem than to face the more complex problem that Western modernisation may have to be redesigned and adapted for African conditions.

The scenarios proposed massive investment in the black community, with the purpose of 'kick-starting' communities into modernisation and economic production: providing 400 000 serviced sites and 200 000 low-cost housing units per annum by 1995; mass electrification; equal, compulsory, free primary school education, as well as adequate post-primary education to provide the skills needed to compete in the economic arena; health care (AIDS was recognised as a major threat; the change of gears scenario could only be successful if South Africa could 'clearly distinguish' itself from the 'plague continent', according to the scenario team) (see Tucker *et al.*, 1992: 135, 141, 139, 153, 162).

These ideas have been taken up in the policies of the new government, but the deficiencies of an approach that merely transfers Western models to our African soil are clearly illustrated in the

development policies followed after 1994. These policies seem very reasonable and enlightened, but they have a blind spot (as Prigogine has pointed out) when it comes to deep and powerful aspects of human nature. New concepts would require a new, more adequate, problem definition. But that still has to wait.

The ANC Alliance government

By 1994 the African National Congress Alliance took office. The ANC Alliance govern-ment followed the advice of modernists such as the Nedcor-Old Mutual Scenario team. Between 1948 and 1994, the scale of the problems has increased beyond recognition. Between 1994 and 2006 the government has provided 2.5 million subsidy houses – more than seven times the figure of four decades earlier – and the backlog is still growing. The ANC government follows a cost recovery policy. As a result, it is reported that between 1994 and 2002, ten million people have experienced electricity cuts, ten million have experienced water cuts, and two million have been evicted from their homes, because of their failure to pay for services (McDonald, 2002: 162).

What is most interesting is that the ANC government did not come up with any new ideas for their housing projects. They continued the approach of the National Party. They provide a solution for a political problem: people now have ownership of their homes, but the housing concepts are the same as that of the apartheid government forty years before: a modern, suburban house that neither the government nor the residents can afford to build and maintain.

Both governments have seen it as their task to provide houses to the poor. Both have interpreted it as a quantitative problem (lack of money and other resources) and not as a qualitative problem (lack of suitable concepts and designs). The scale of the problem has increased, and as a result, the quality of houses built by the new government is even worse than before. Both have worked with a simplified interpretation of Maslow's needs theory, which has the effect that present housing projects only provide for 'basic needs' such as water, sanitation and 'a roof over your head', and not for community creating space, identity, and a sense of belonging and being at home.

Views from the 'inside'

Wole Soyinka (1976: viii), a Nobel laureate, pleaded for an academic approach that could express Africans' 'true self-apprehension':

> … the apprehension of a culture whose reference points are taken from within the culture itself … African academia has created a deified aura around … intellectualism (knowledge and exposition of the reference points of colonial cultures). To the truly self-apprehending entity within the African world reality, this amounts to intellectual bondage and self-betrayal.

An approach to low-income households is needed that, in the words of Soyinka, takes its reference points from within the culture of the low-income household in order to gain a better understanding of the problem. In this article, such understanding is seen as a key towards the designing of housing models that would improve the situation and be desirable, affordable, sustainable and beneficial.

Therefore, I have tried to gain a better understanding of the way in which residents themselves understand these issues, of 'the view from within'. 'Understanding' is approached in a phenomenological way, that is, by focusing on the way in which low-cost housing is presented in the consciousness of the residents of rural areas and townships in South Africa. The phenomenon of fear has emerged as an important indicator of the meaning that residents give to the house as a satisfier of the need for protection. This section presents residents' perceptions regarding the past, present and future.

The 'reeftown elite'

Modern Western culture, in contrast with traditional African culture, is strongly influenced by basic motives such as the search for progress through human control over nature. This leads to discontinuity with the past and the constant development of new technology. The idealisation of modern Western culture is a powerful factor in the shifting dynamics on the South African scene but it is not, as many still believe, necessarily the decisive factor. The way in which all factors interact and eventually combine is the real decisive factor.

One of the best descriptions of a township community that shaped itself on Western cultural patterns can be found in the two books of a Dutch sociologist, Brandel-Syrier, who befriended a better-off township community, or elite, on the Reef in the sixties and seventies. The two books are: *Reeftown Elite* (1971) and *Coming Through. In Search of a New Cultural Identity* (1978).

Coming through refers to a successful entry into the modern world, or 'civilisation', as the reeftown elite called Western culture. Hardly anybody spoke of an African civilisation at the time. Western civilisation represented the identity people were striving at. "This civilisation was for them mainly three things: church, school and town." Those who had entered the modern world did so by successfully coming through these three processes: Christianisation ("where it all started"), education and urbanisation. Those who had done so became the elite; they had arrived at the destination that the others were still striving at (Brandel-Syrier, 1978: 8, 13).

In *Reeftown Elite* (1971: 85-6) the importance of the house as symbol of modernity, even of a sense of being 'human', is pointed out:

> In itself, to live in a house and not in a hut, was of the greatest social and cultural significance. It not only showed that one had 'arrived' socially and culturally, but it demonstrated for everyone to see that one had arrived among human beings.

An insurance agent explained his ideal, if he had money, as follows:

> I would buy a nice house. I want us to be comfortable. That is with electricity and all the comforts (Brandel-Syrier, 1978: 96).

The policies of the ANC government, including the Electrification Drive of the 1990s have pursued the same ideal, but without taking cognisance of another, powerful, counter-ideal: the search for the restoration of an authentic African identity.

A case study from a rural area

During fieldwork in a rural area near the University of the North, Polokwane (previously known as Pietersburg), Limpopo Province, in 1990, we met Mrs M. She was a spirited lady, divorced, with two sons. She claimed to be a traditional healer and promptly offered to restore the sight of one member of our research team, who was born almost blind. She also told us about all the threats to her life that she had to cope with.

Mrs M and her sons had recently moved to a new settlement. When the family departed, taking along the corrugated galvanised mild steel roofing sheets ('zink') from the old home, she stayed behind in the thatched part of the house, where the ancestral spirits reside, with the intention

> … to talk to the ancestors before I go … (or else) I am afraid they will punish me. I do not want to make them angry with me. They can either neck me or make … that we stay without peace … because they will be looking for me at this place I am now leaving.

Disobedience towards the ancestors can be fatal. Mrs M once ignored their instructions and promptly fell ill: "She became too critical," her son explained. She was healed by taking herbs as instructed by the ancestors in her sleep:

> They (the ancestors) come to a person in different ways. You can be ill, not only ill but seriously ill. You may take the illness to your (Western) specialist and you will never get healed. You then come to an African herbalist. There you will be told to join the *Malopo* dance or they tell you to put a *Thitikwane* for such and such a person. Without any medication, by doing that you will be healed. At times you find that they want you to become an herbalist. In this case, the African herbalist will teach you and tell you what to do.

The matter-of-fact style is followed by a description of earlier times in terms that remind one of Paradise. Paradise was lost because of the intrusion of the analytic, positivist, scientific and rational light of Western culture:

> The coming of the whites in our places spoiled all these things. That is why in these days we do not experience a good rainfall as we used to have in the past. They disturb our ancestors. Look, these people at a (sacred) cave were singing, dancing and enjoying their own selves, giving out some pots and mats. But the whites entered this cave in order to see what was happening inside there. They wished to see these people and it is impossible, they cannot see them.

The fear of ancestors is found elsewhere in Africa too, as explained by John S. Mbiti (1974: 84):

> When the living-dead return and appear to their relatives, this experience is not received with great enthusiasm. The food and libation given to the living-dead are paradoxically acts of hospitality and welcome, and yet of informing the living-dead to move away. The living-dead are wanted and not wanted. If they have been improperly buried or were offended before they died, it is feared by the relatives of the offenders that the living-dead would take revenge. This would be in the form of misfortune, especially illness …

In addition to the ever-present threat of the ancestors, the household has to cope with threats from fellow people. One reason for leaving the previous settlement was that Mrs

M's enemies had sent snakes to kill her, her ex-husband being one of the enemies. She suffered numerous snakebites. Her son explained:

> When my mother felt some pains she once said people sent some snakes to kill her. These people are all her enemies. They didn't want us to stay. They wanted to kill her so that we must move.

The fact that the physician of the research team could find no snakebite lesions only served to substantiate Mrs M's firm conviction that Western medicine is helpless and ineffectual in such cases. To her household these threats are more real than the realities that modern science can perceive. The whole family is convinced of being the victim of the evil intentions of other people, sufficiently convinced to pull up their roots and move house.

On arrival in the new settlement she is still afraid. This time she feels threatened that the new community will blame her for everything that goes wrong, in the same way that she blames her enemies:

> Whatever wrong is done, people will say it is my children because I am very poor. I think I am going to lead a very bad life at this place.

Not only the spirits and the people are a threat, but the house itself, the one place where one expects to find shelter and feel safe and at home, is a threat. The research team was told that an herbalist should have a very humble home. In order to avoid jealousy, an herbalist should not show overt signs of opulence, irrespective of his/her actual financial standing. The corrugated iron sheets that were put on the roof at the old place were used again here. No nails were used. The sheets were kept in place by sizeable stones that were packed on them, a common practice. These heavy stones could become an instrument of other people's evil intents and kill her by falling on her. Even the walls could collapse on them:

> They were a threat to me … the walls become heavy with water and can kill a person … the stones will press the corrugated iron and they may also kill a person.

Mrs M's fears took on cosmic proportions. Her house was built under a beautiful, big tree that provided much-needed shade during hot summer days. But one day, when we arrived, the tree was cut down. Mrs M explained that the new shanty would not offer enough protection against heavy rainstorms, which were attracted by the tree. She was convinced that the tree attracted huge snakes that, she claimed, lived in the sea and flew around high up in the sky, and wanted to come to rest in her tree. These snakes were surrounded by rainstorms, with lightning and thunder. The tree had to be felled, leaving her corrugated iron shack exposed to the merciless African sun. But the fear remained, because she told us that the snakes might now see the roof glitter in the sun and, thinking that it is water, come down to land in it.

There is no place to hide. Moving to a new house did not help, because she did not build the walls herself and could not perform the necessary rituals:

> Yes, even the (new) house itself was frightening me because I found the walls erected already. I was risking the life of my children together with my own life. I was not proud of the house. I was feeling uncomfortable and unsettled.

A case study from urban areas

In 1995, contract-research has been executed by the author for the Council for Scientific and Industrial Research (CSIR) to investigate energy patterns in remote rural areas. For this purpose the Blouberg area, approximately 130 km northwest of Polokwane was identified by the CSIR for investigation.

In this research we first encountered the idea of 'flying witches'. Flying witches can be heard on the roof, especially on a corrugated iron roof. They are mostly harmless but one should not try to use force when meeting one of them, one should rather just slip away quietly. Apparently they can also disguise themselves temporarily so that one might find out after a time that you have married a witch.

Several people complained that they could not sleep well at night because of the heat. They close all the windows out of fear of snakes, insects, thieves and witches. They also sweep the area around the house clean, so that they can see in the morning if there are tracks of wild animals, snakes or witchdoctors. It was described by one respondent as 'a cultural problem' (Van Niekerk, 1995: 57-8). The result of closing all windows is that the modern house of bricks and cement, with a corrugated iron roof, built without following any energy efficiency guidelines, was baked hot during the day and could not cool off during the night.

Inspired by the results in the Blouberg area, it was decided to investigate whether people in urban areas also close their windows at night and whether fear of witchcraft played a role here too. Closed windows would have an obvious negative effect on cooling of the structure and on healthy ventilation. As part of the investigation, 528 respondents took part in a questionnaire survey on housing, thermal comfort and energy efficiency in low-income housing. The survey used a randomly selected sample consisting of an equal number of informal houses and RDP houses (low-cost government subsidy houses) at eMbalenhle, Secunda (219 respondents) and at Zamdela, Sasolburg, (309 respondents).

One question concerning witchcraft in the questionnaire was formulated in the form of a statement to which the respondents could strongly agree, agree, disagree or strongly disagree. The statement was: Witchcraft is a problem in our community. To the surprise of the research team, 76% of respondents agreed or strongly agreed. This means that the belief that witchcraft is a present reality is not limited to old people in rural areas, but is also very common in urban and peri-urban areas with a younger age profile. The suspicion of witches being active in the community remains dormant in more peaceful times, but become manifest during times of strive or political unrest.

Another question that concerned witchcraft was formulated to find the reason why people keep their windows closed at night. Almost all the households (more than 99%) do close their windows at night. Most (96%) give crime as a reason, but 84% of people also indicated that they close their windows because of fear of witchcraft (respondents could give more than one reason) (Holm *et al.,* 2005). This is a remarkable outcome because to indicate witchcraft as a reason for a certain daily action indicates much stronger the belief in witchcraft than just agreeing with a statement on the existence of witchcraft in a certain community.

Theoretical reflections

These results confirmed the importance of fear as a factor in the designing of energy efficient low-cost housing. Fear may, however, disappear with an experience of unity and wholeness. In order to find housing designs that would provide a place to feel at home, we need to reflect on this phenomenon more thoroughly.

A psychiatrist in a rural hospital, G. A. van der Hooft (1979) observed that many patients in his psychiatry ward, often coming from urban areas, got healed after taking part in the traditional *Malopo* dance. The *Malopo* dance is a ritual in which people dance in a circle until they go into a trance and fall down, stiff as a corpse. This is interpreted as having entered the world of the dead, in this way making contact with their ancestors. This experience often leads to the healing of psychic disturbances. The restoration of the relationship with the ancestors brings, in the view of this Western psychologist, a restoration of the traditional unity of the world in which these patients live. The *Malopo* ritual takes place in the centre of heaven and earth, of time and place: at the homestead, and where light and darkness meet, so that the ancestors and their offspring can be reunited again.

The search for unity is not only expressed in the *Malopo* dance. One may say that the circle is the most telling symbol of the African worldview and has thus similar implications for other domains of life that are related to the household (Sundermeier, 1974: 120). To comprehend it is to come close to the African feeling of unity and harmony. The African derives his confidence to face life from the unity of his world, through which he experiences what European existentialism wants to achieve, the uncleft unity of subject and object, the interchangeability of inside and outside, the relation to one's surroundings and the imbedding of the individual in the community. Thought and feeling, which exist side by side in the West, form a unity here. Should the circle be ruptured, the unity will disintegrate and life will be extinguished.

Sundermeier continues:

> The area circumscribed by the circle is unbroken and whole. It has no top or bottom, no more or less. All the dynamics in this area combine to form a balanced harmony. Sunrise, sunset, noon and midnight are held together in the circle. It separates what is outside from what is inside. Within life is a unity, held together by a hidden centre. Should the circle be ruptured, the unity will disintegrate and life will be extinguished. Within there is shelter, outside there is defencelessness. The circle circumscribes order, any one outside of it has no place to live. The right and left hand sides, the side of strength and that of weakness, stand next to each other in equilibrium. Life and death balance each other; harmony of forces prevails.

It is a mistake, however, to assume that the order and coherence of the African household excluded social unrest and hostility. There was a lot of fighting between men, "continuous warring between the various clans," and even conflict between man and his gods. "Some were burned and chased out of the land; but the search goes on inexorably for that fundamental harmony on which their cosmic destiny rests" (Awoonor, 1976: 252-253). The harmony is not always very visible. It is searched for; it is fundamental; it must be seen in a cosmic context. These terms indicate the religious character of the unity.

The circular pattern provided community-creating spaces and a basic unity and security that have been lost in the modern, square housing patterns. The result is social and ecological

disintegration. Amankwah-Ayeh (1995: 37-47) is therefore right when he blames the social evils of modern African cities on the absence of the community-creating spaces provided by the circular pattern of the traditional sub-Saharan African household. Modernisation and urbanisation had a shattering impact on the traditional world. This led to an increase in the search to establish unity, balance and harmony between the ordinary life of people, which is the world of the day, of sunshine and light; and the spiritual reality of their ancestors, which is the world of the dark and of the night, the world of dreams and spirits.

In the modern context, ways must be found to restore a sense of harmony and unity. The place, the spatial centre of this unity is the homestead.

Conclusions

The present housing problem in South Africa will quite obviously not be solved by persisting with the established method of 'housing' the masses in so much 'accommodation'. The fear cannot be solved by mere technology such as another type of ventilation. Or can it? A ventilation opening that is burglar proof will still leave 84% of people afraid of witches. Or – given the unclear distinction between the natural and the supernatural – will a decrease in one type of fear also lead to a decrease in the other? What combination of elements will produce a whole that is better than what we have? The specifications for burglar proofing is much easier to come by and to test than for witch proofing. Should we first eliminate the problems that we can and then see how the problem changes? Or should we try to address the basic crisis, which lies much deeper, transcending the scope of earlier approaches?

Our conclusion is that the fear that was observed is a result of the disintegration of the wholeness of the traditional lifestyle in the household and that a new whole would have to be designed by combining elements from all the systems involved to form a new integration, a new Gestalt. The high levels of fear in the community is a function of the feeling of homelessness, brought about by a process of modernisation that has damaged traditional cultural patterns instead of enriching them. It is an indication that our country has not yet managed to provide to people households and communities where they can feel at home. There is a need to find ways in which the existing elements that are present in the household system can be re-integrated into a unified whole that makes a proper quality of life possible. The core of this unity could hardly be secular, given the deeply religious nature of African society. The modern African household, where modern African people can feel at home, a household in harmony itself and with the surrounding world, still has to emerge from our turbulent society.

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Practising Disclosive Systems Thinking: Lessons from a Household Sewing Project

Roelien Goede, Andrew Basden and Riaan Ingram

Introduction

Poverty and unemployment remains major problems in South Africa. Upliftment projects often incorporate modern technology to improve the plight of local communities. However, these projects often fail since the technology is not embedded in the cultural context of the situation. This is mainly because of a lack of understanding of the intricacies in the problem situation and the role of culture in human acting. This chapter focuses on a methodology that includes the cultural factor and investigates its application in a household sewing project. The methodology that is called RIND (responsive intrinsic nature disclosure) is based on disclosive systems thinking (DST) and suggests the peeling away of presuppositions to gain an understanding of complex situations. It may also be used in a non-Western context with recognition of the native culture and value systems. DST was originally proposed by Strijbos (2000), given methodological shape by Goede and Strijbos (2005) and tested in a case study by Goede (2006).

The following proposes a new version of RIND and aims to draw lessons from a problem situation in a developing country where different cultures and worldviews interact with each other. Since RIND is based on DST, a brief overview of the various systems thinking methodologies will first be discussed, followed by an introductory discussion of Dooyeweerdian philosophy that is underlying DST. After that RIND is theoretically presented, focusing on the peeling away of presuppositions and assumptions. Next we describe how RIND can be used to better understand the township sewing project and we close with some concluding notes on RIND.

Systems thinking methodologies

The term methodology refers to methods for exploring and gaining knowledge about systems. Systems thinking emerged in reaction to reductionism, when Von Bertalanffy (1968) advocated an interdisciplinary approach to widen the scope when studying problem situations. A system is a set of interrelated entities, of which no subset is unrelated to any other subset (Kramer and De Smit, 1977) and has properties that do not exist in the parts but are found in the whole (Weinberg, 1975). Churchman (1968) describes systems in terms of their objectives, environment, resources, components and their management. He argues

that a specific system can be identified by its objectives. Different ontological views of systems, which we call methodologies, emerged, namely hard systems, soft systems, critical systems and recently disclosive systems thinking.

Hard systems thinking (HST) is a term used by Checkland (1981) as an alternative to 'soft systems'. From a hard systems thinking perspective social systems are treated as scientific problems. A system is viewed as a hierarchically organised set of elements. When one understands the components of the system, one is able to understand the system as a whole. A system is seen as a true representation of reality. Soft systems thinking (SST) adopts a more relativistic view of a system. A system is viewed as a person's perception of the real world. Different views enhance the understanding of the problem situation. Checkland (1981) developed a methodology (set of methods) to implement soft systems thinking in solving problems. Critical systems thinkers (CST) believe that the world is not fundamentally harmonious. Therefore, to understand, explain and make possible changes, one must think in terms of contradictions. Different perceptions can be seen as expressions of irreconcilable conflict and power struggle between management and workers (Flood and Jackson, 1991). Intervention and emancipation is central to practising critical systems. Disclosive systems thinking (DST) was introduced by Strijbos (2000) to address the responsibility of people for particular developments. He accentuates the norms for action taken by agents and argues that ethics should be part of the chosen systems methodology. Strijbos (2000) warns that ethics is not part of hard, soft or critical systems thinking. He states that

> ... disclosive systems thinking (and the systems ethics entailed in it) proceed from the normative view that the various systems receive their meaning from the pre-given reality and order of which these systems are a part.

The significance of DST lies in its place in the history of systems thinking. Checkland (1981) argued that although what became so-called 'hard systems thinking' might have been suited to well-defined problems capable of mathematical solution, it was not suited to the ill-defined problems that plague 'human activity systems'. He proposed a 'soft systems thinking' (SST), in which perspectives (Weltanschauungen) held by participants should be recognised and accepted, as they generate not only a difference of opinion regarding the solution, but also different interpretations of the situation and even different views on what it includes. Jackson (1991) argued that SST, while perhaps adequate to describe human activity systems characterised by consensus, is not suited to situations characterised by conflict since it provides no basis for critique of perspectives as such and cannot recognise the structural impact of power relations. His 'critical systems thinking' (CST) introduces recognition of a basic kind of normativity that is missing from both HST and SST, namely emancipation, which is the norm that should guide any CST.

There are however, two major problems with CST. Firstly, 'emancipation' is not regarded a critical problem for examination and is therefore not clearly defined in a way that is helpful in practice. It might be defined as 'freedom from unwarranted constraints', but what is 'unwarranted', what constitute 'constraints' and indeed, what is 'freedom'? Usually the definition of such concepts in practice is left to the subjective views of participants, which brings CST back into the same fold as SST. Secondly, and perhaps more fundamentally and certainly of more importance in practical analysis, CST provides no basis for recognising diversity in the normativity it claims to espouse. For example, linguistic, social, economic,

legal and ethical norms are all to be treated as versions of 'emancipation'. And how can 'emancipation' be understood in an age of threatening environmental disaster?

Strijbos (2000) expands on this. He described disclosive systems thinking in terms of four normative principles, which any practical version of it should embody. Primary for the development of human society and culture is the norm for the opening or disclosure of everything in accordance with its inner nature or its intrinsic normativity. Characterising cultural formative activity as 'disclosure by response' leads to the identification of a second normative principle namely, the simultaneous realisation of norms guided by the qualifying norm for a particular area of human life. A third principle relates to the fact that systems methodology usually concerns human activity in which a diversity of human actors is involved. So disclosure results from a multi-actor process in which the actor bears the responsibility to build a framework of co-operative responsibility for human action. Fourthly, in building such a common framework, the experts need a critical awareness of the social-cultural context.

Since DST is based on the philosophy of Dooyeweerd, any methodology for practicing DST should also take the modal theory of Dooyeweerd into account. The Dutch philosopher Herman Dooyeweerd (1894-1977) proposed a new framework for theoretical thinking in which he discussed 15 aspects of reality. All aspects pertain, always, everywhere and for all things (Basden, 2007). These aspects are given with a short explanation in Table 1.

Table 1: Dooyeweerd's aspects and meaningful experiences within each aspect
(Basden, 2007)

Aspect	Meaningful experiences within the aspect
Arithmetic	Amount, quantity, counting, proportions, properties such as less, many and few.
Spatial	Size, length, direction, relations such as far and near.
Kinematic	Movement, rotation, speed, properties such as slow and fast.
Physical	Energy, mass, force, momentum – almost anything studied in physics.
Biotic	Respiration, digestion, growth, organs, etc.
Sensitive	Feeling, sensing, emotion, nervous system, sense and motor organs, colour, etc.
Analytic/ logical	Distinction, distinguishing, concepts, clarity, properties such as clear, fuzzy, etc.
Formative	Forming, shaping, achieving, goals, technology, skill, etc.
Lingual	Symbol, signification, representation, writing, speaking.
Social	Social relationships, agreement, discourse, properties such as understandable.
Economic	Resource, frugality, budged, deadline, cost, production.
Aesthetic	Harmony, style, balance, enjoyment, leisure, music, etc.
Juridical	Due, rights, responsibility, justice, oppression, emancipation, properties such as reasonable, appropriate.
Ethical / moral	Self-giving, self-interest, love, generosity, sacrifice and attitude.
Pistic	Faith, loyalty, commitment, vision, morale, hope religion, God, etc.

The Development of RIND: Peeling away the rinds

Central to any methodology for DST and therefore RIND should be a 'peeling away' of the rind, which hides the intrinsic structure or normativity of the problem situation, so as to disclose it. 'Peeling away' does not mean to discard but to identify and to move forward. The need to peel away invites consideration of presuppositions. Once made explicit, these presuppositions can be subject to critique, and decisions can be made as to whether, or what extent they are validly seen as expressing the intrinsic nature and normativity of the situation, or hiding it.

Gearing RIND to peeling away

Presuppositions are deep commitments to a view that defines what is meaningful to us. They are religious in nature, in the sense meant by Clouser (2005), who defines 'religious' much more widely than creeds and belief in a deity; 'religious' commitments are commitments to that on which we depend without questioning them, and these can be of several kinds. Presuppositions are horizons of meaning, which depend on nothing else for their meaning and which give meaning to all else we experience. Participants come to an analysis with a presupposed commitment to a particular horizon of meaning, for example the reverent of the church came with a commitment to the social aspect of the sewing project. These religious commitments are not necessarily invalid, but need to be disclosed as religious rather than logical or neutral, or 'given' in nature, as they are the cause for hiding the true intrinsic nature and normativity of the situation.

RIND must be geared towards helping participants to recognise the religious nature of their presuppositions and other religious pre-commitments, thus allowing these to be 'peeled away', if necessary. Every situation is intrinsically complex. What some analysis methods aim for, is to simply reduce that complexity of the situation to something supposedly simple. But those merely hide the real complexity. If RIND is to disclose the true nature or normativity of a situation, then it must have a different aim. RIND should provide a relatively straightforward and intuitively grasped method by which the ordinary person can address the complexity of the situation.

In order to be easily remembered, we aim for a small number (no more than five to seven according to Miller (1956)) of top-level phases that reflect the principles of DST in the kinds of situations to which they apply. However, to ensure that this does not reduce the full intrinsic complexity of the situation in the minds of the participants, these phases must be flexible in their scope and operation.

Although numbered in a specific sequence, in practice these are seldom addressed in the same order. More commonly, there is a movement between and among them, sometimes revisiting one that has been visited before, almost like a journey of exploration. Any of the above can be the starting point. For example, supposing the participants adopted a ready-made solution, one might begin with phase 4 to reveal it as such. This then raises the question "What is the problem we are actually trying to solve?" and various proposals will be offered. Therefore, phase 1 can be explored; this might lead to considering who should be involved as participants (phase 2), followed by a questioning of given structures or constraints (phase 3), thereafter a return to consider other participants (phase 2) and finally, by referring to work done in phases 2 and 3, considering implementation (phase 5).

This sequence is shown in Figure 1. The five phases may be seen as five 'onions' of which the outer skins are being peeled away. When all the peelings-away have been attempted, the process might end with a 'solution' comprising all five results of such peelings-away.

The above approach provides an answer to the practical question "What should we seek to peel away?"

Figure 1: Phases of RIND-2 with example analysis
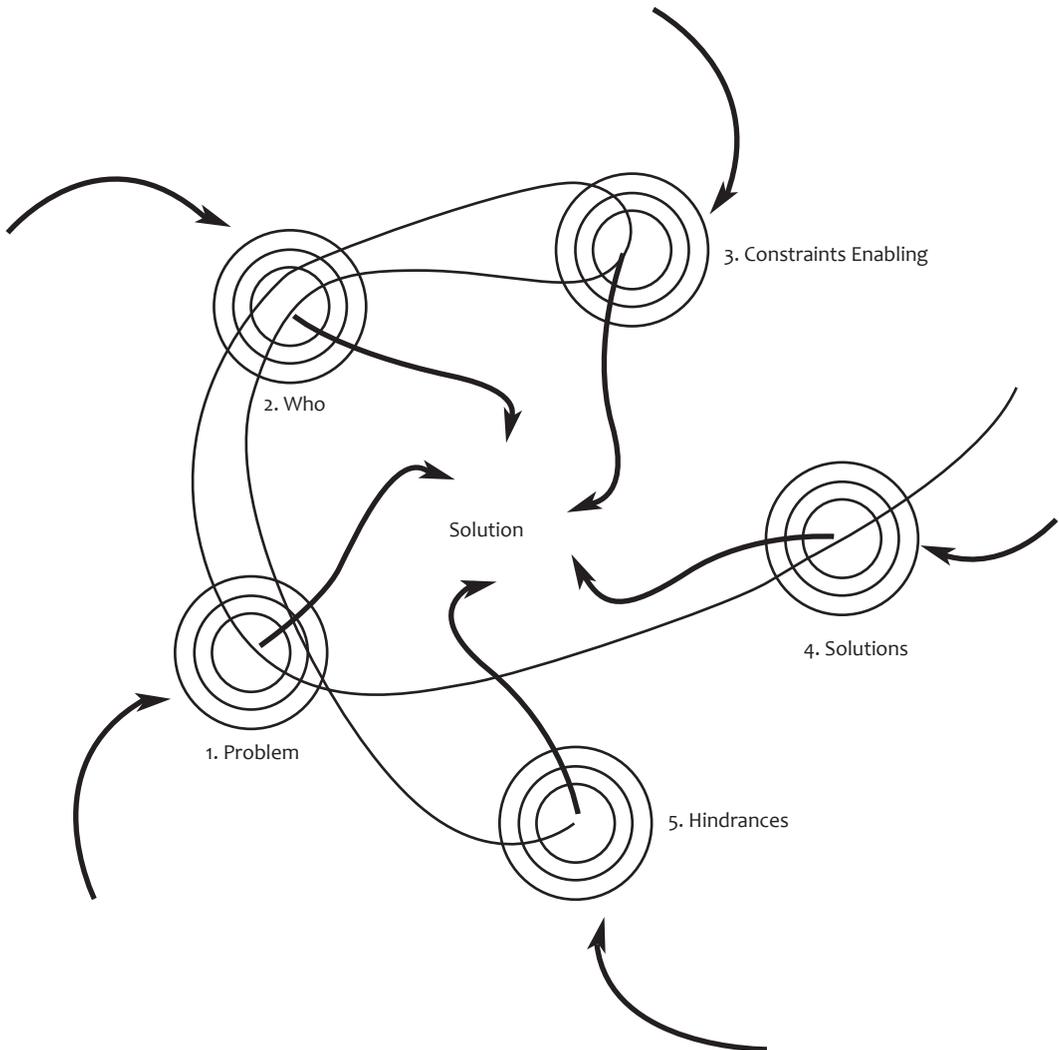
Towards a practical method

But the question "How should we try to peel away?" still needs to be addressed. One answer that proved useful to 'disclosing' is Dooyeweerd's (1984) suite of modal spheres, commonly known as aspects. Dooyeweerd's aspects point to very basic kinds of meaning that property and normativity participants might find in situations. His suite, compiled over a long period

of reflection and testing, sought to eliminate what hinders one from seeing the structure of reality. Not only can these aspects provide a basis for defining categories, but they are in fact much more than this. They are spheres of meaning and law. As spheres of meaning, they enable things to be meaningful and 'make sense', thus defining distinct basic kinds of property, distinct rationalities and distinct modes of being, occurring and relating. As spheres of law they define distinct basic kinds of normativity, functioning in life, kinds of repercussions that might occur and hence, kinds of responsibility that might pertain.

Each aspect supports a whole constellation of meaning and normativity, with complex inter-relationships between aspects that need not be discussed here. Dooyeweerd did not claim absolute truth or completeness for his suite of aspects, but he did claim that the kernel meaning of each aspect, while never able to be fully analysed, could nevertheless be grasped by our intuition. Lombardi (2001), Winfield (2000) and Kane (2006) found that Dooyeweerd's aspects are readily learned and understood in practice by the 'ordinary person'.

The above suggests one practical means of peeling away that, which is over-emphasised, thereby disclosing the full nature or normativity of a situation. Winfield and Kane in particular developed analysis methods based on Dooyeweerd's aspects. They found it useful to present Dooyeweerd's suite of aspects to participants, together with a brief explanation of their kernel meanings, and let the participants themselves refer to the aspects as they may wish to. Towards the end of the analysis, they might ask the participants "Are there any other aspects you might like to consider?" and this would usually stimulate discussion of aspects not yet considered and the disclosing of those which are often overlooked by virtue of being unpopular, taken for granted or 'embarrassing'. In this way, use of Dooyeweerd's aspects was not prescriptive, but rather gave a feeling of freedom.

The above five phases can be made operational by employing the suite of aspects as follows:

Peel away the presuppositions about what is meaningful regarding the problem, to disclose all its hidden aspects. Following Winfield's (2000) method (MAKE: Multi-aspectual knowledge elicitation) this may be achieved by asking participants to first identify the aspects, which mean most to them (the obvious ones) and determine some features of the situation relating to those. Gradually, features meaningful in other aspects will emerge, and the participants can then be asked about aspects to which they believe these belong. This can be a cyclical process, until participants feel that they have a fairly complete picture. At this point, Winfield and Kane found it useful to ask whether there are any other aspects participants might wish to consider. This would stimulate further consideration and recognition of aspects often overlooked.

Peel away assumptions about who is involved, identifying their fears, hopes and beliefs and revealing intrinsic responsibilities. Fears, hopes, beliefs and responsibilities are often focused on one aspect: for example, in Goede's (2006) case, fear of being deemed of no value (pistic), hopes of integrating research with teaching (aesthetic), beliefs about the nature of technology (formative) and responsibility to society and the world (juridical). This can proceed in a manner analogous to the above, from the obvious aspects, to those related to them, to those that are often overlooked.

Peel away assumptions about the organisation and its wider context in which unquestioned faith is placed, to disclose the meaningful constraints and enabling factors. Each aspect as sphere of law enables possibilities and imposes constraints of a kind different from those

enabled or imposed by others such as legal, moral and economic constraints. A similar process may be followed; the obvious ones, those related and finally those overlooked.

Peel away any ready-made solutions, to obtain solutions that answer to all aspects of the problem. First there has to be recognition that there might be pre-committal to ready-made solutions. This can sometimes be achieved by examining what appears to be a ready-made solution aspectually, exposing aspects not addressed by the solution and asking participants what might be the repercussions of the proffered solution in this aspect. Once such initial ready-made solutions have been peeled away, the design of solutions could also be handled aspectually in a manner similar to the above-mentioned; begin with the most obvious aspects, move to those contingent on them, then consider overlooked aspects, especially to consider whether there might be unintended repercussions of the solution that should be considered. This has been applied by Basden (2007) in considering unintended and unexpected impacts of IT solutions in human situations.

Peel away hindrances to implementing these solutions effectively. In earlier applications of RIND, the main hindrance experienced was lack of ownership of the solution by those affected but not involved. This could perhaps be overcome by revealing to such people aspects of the (well-considered) solution designed in phase 4 in which every aspect has been carefully considered, to show them the benefits of aspects that are of interest to them. Except in cases of pure stubbornness, this can often result in ownership if undertaken with grace and honesty. Alternatively, those who resist might have good aspectual reasons, which have been overlooked in phases 1 to 4, indicating a return to those.

It is not always necessary to undertake a full-scale aspectual analysis in every phase. If a full-scale analysis was carried out for one phase, the analyses in other phases can often capitalise on this, or can be interwoven with it.

Application of RIND: A sewing project in Mamelodi

The '*Navorsingsorganisasie vir die Verligting van Armoede* (Nova)' (translated as Research organisation for the Relief of Poverty) focuses on the facilitation of a healthy household culture in southern Africa. One of Nova's focus areas is the facilitation of household production projects. They soon realised that to be successful, technical solutions should be blended into the social structure of the community. One such unsuccessful project was to encourage home grown vegetables. They supplied irrigation systems to be used in household vegetable gardens. They soon realised that people did not view this as a 'real' job. Young men would rather be seen doing nothing than working in the townships. People also strived to have the same garden layout as in the suburbs, using the largest area for lawns and flowerbeds. This means that the nature of the technology introduced does not conform to the kind of labour young urban people identify themselves with. This is the main reason why the project did not succeed in its main purpose, namely generating a viable income for the participating households. From lessons learnt from the vegetable project, Nova launched a sewing project. The reasoning behind this was that women from urban areas would rather identify with the sewing industry. Industrial sewing machines had been acquired and a sewing centre was set up at a local church. Several women participated at a local church. It soon became evident that not all the role players had the same expectations of the project. The minister of the church and some of the woman saw it as a social activity.

Two of the woman saw is as a career opportunity. The investors were interested in the economic success of their investment. How to apply RIND in tackling the problem situation?

RIND is used here to reflect on the sewing project in retrospect. This application of RIND should thus be viewed as a thought experiment or a reflection on how RIND could have been applied in the problem scenario. The thought experiment is meant as a first step in the testing of the method. When this exercise is proven to be successful, it may be applied in a real problem situation.

Phase 1: Peel away the presuppositions about what is meaningful regarding the problem, to disclose all its hidden aspects.

The first phase of RIND is to better understand the problem situation by doing an aspect analysis of the problem situation. The qualifying aspect of the sewing project is economic, since the aim of the project was to create opportunities for women to earn a livelihood from home. The qualifying function does not exclude the presence of other modalities as listed in Table 1. The arithmetic aspect is present in the action of measuring fabric in order to manufacture the products. Spatial aspects are present in the sizes of the garments manufactured. The operation of the sewing machines represents the kinematic aspect. The physical aspect is present in the energy consumed by the machinery and the women in terms of their effort to manufacture the garments. The sensitive aspect is present in terms of the touch of the fabric and the emotions when a garment is completed. The analytical aspect guides the choice of fabric for a specific garment amongst others. The manufacturing of wearable garments from large pieces of fabric is representative of the formative aspect. The lingual aspect is amongst others represented by the sewing patterns. The social aspect is of great importance in this environment as people work together to manufacture the garments. For the church council the social aspect is of greater importance than the economic aspect. The aesthetic is present and important as the quality and style of the finished garments is responsible for the income generated by the project. Amongst others the juridical aspect is represented by the emancipation of the women involved. The ethical aspect is crucial and viewed differently in this problem situation. On the one hand there is the self-giving and generosity of the women who see the project as a social event at church and on the other hand there is the attitude of the women who is geared towards setting up a business. Their ethics is mostly comparable with business ethics. The pistic aspect also differs for the women who view the project as a church activity from those who are committed to setting up a viable business.

By discussing these aspects the different orientations of the stakeholders can be uncovered. Once highlighted one could associate these differences with the presuppositions of those involved.

Phase 2: Peel away the assumptions about who is involved, identifying their fears, hopes and beliefs and revealing intrinsic responsibilities.

Phase 1 will almost always result in a difference of opinion on the nature of the problem situation. The discussion of the later aspects (such as ethics and pistic matters) may highlight different worldviews of different role players. This was also the case in the sewing project. After the project started at the local church, it soon became clear that different

role players had different intentions. One party, including the funders of the project and two participants, saw it as an opportunity to start a business. Another party, including the reverent and the majority of the participants, understood the project to be a social church event. As a consequence, segregation was inevitable. The project was moved to the home of a lady who wanted to do serious business. This highlighted the specific nature of the project. One can view the problem situation in terms of the sewing activity, which is formative and aesthetic in nature, or one can view it in the context of creating job opportunities, which has a social economic nature.

There are a number of different role players in this situation. They are listed below, and the aspects involved are indicated in brackets:

■ The investor of the funds who wanted a return on his investment (economic).

■ The church council and minister were more interested in the social nature of the co-operation than profit margins (social vs. economic).

■ Nova who was interested in the social and economic nature of creating new job opportunities.

■ The majority of women were interested in the group activity of sewing together (social, formative and aesthetic).

■ Two of the women saw the opportunity to make a profit (economic). They believed in the possibility of starting their own businesses (pistic).

■ The customers, who, one assumes, wanted good quality clothing in their local community at lower prices (economic, social).

■ The current suppliers of low cost clothing who might have reacted to new competition (economic).

Phase 3: Peel away assumptions about the organisation and its wider context in which unquestioned faith is placed, to disclose the meaningful constraints and enabling factors.

The wider context can be seen as Nova's initiative to create new job opportunities. Nova's work started with literacy programmes, but they realised that if the number of employment positions did not increase, their literacy programmes in fact aided the redistribution of these positions and therefore only create other poor families. These assumptions should be discussed further in terms of other benefits of literacy programmes and their role in self-employment. Another aspect is the wider context of community projects and specifically church projects. The nature of these projects might differ from the aim of job creation. Such an investigation will lead to a better understanding of the intentions of different role players.

In terms of the sewing project one can distinguish between the group of women who continued working at the church in a social group and the women who moved the business to a house in order to set up a business. The latter group has many constraints in turning a small-scale activity into a proper business. The most important constraint is a lack of capital. It is difficult for them to acquire the amounts of fabric required to serve a large order. The

availability of funds prevents the business from expanding. It also restricts the way the business is managed, as there is very little strategic planning. The constraint discussed here is mainly an economic constraint. One may also identify other constraints associated with the other aspects.

Phase 3 differs from phase 1 as it goes further from simply identifying an aspect in the situation, to the analysis of the aspect in terms of constraints and enabling factors. In this case one should attempt to determine the implications of the lack of capital on the economic success of the organisation. This analysis may be extended to the ethical and pistic aspects as well.

Phase 4: Peel away any ready-made solutions to obtain solutions that answer to all aspects of the problem.

Nova attempted the vegetable project as a solution to the unemployment problem. They also attempted literacy programmes. They learnt a lot from these projects in terms of the specific nature of (un)employment in townships. After deciding on the sewing project, their first solution was to set up a sewing centre at a local church. This decision highlighted the different intentions of the different role players as described in phase 2. What seems to be a solution in for the venue problem became an obstacle in the attitude of the people towards the project. This phase of RIND is aimed at the critical analysis of solutions to the problems. In this study the solution to one of the problems, namely the venue for the sewing resulted in some women viewing the activity as more social than economic. As this analysis is done in terms of aspects one can better understand the presuppositions of the involved. By moving the sewing centre to the home of one of the women the qualifying aspect of the activity (economic) was brought forward. After doing the thought experiment of applying the phases of RIND to this project one might wonder whether a home is the best venue for the activity. The constraints brought about by moving the sewing project to one of the homes should be analysed. One should also investigate the lack of capital problem and the women's solution thereof.

Phase 5: Peel away hindrances to implementing these solutions effectively.

Discussions continued with all of the involved parties to better understand their problems. However, these did not bear the desired fruit. It was discovered that the church is not a suitable place for the development of businesses. The church is associated with spiritual, personal and social empowerment and any activity that compromises these goals are rejected. On the other hand, the household of the lady who wanted to do business was receptive to doing so. She was supported by her husband and children and could easily combine her roles as businesswoman and mother at the same location. As indicated in the previous phase, the relocation of the centre from the church to one of the woman's homes was done to highlight the project's aim of creating jobs, rather than being a social gathering. The aim of RIND is to highlight the different presuppositions of the involved parties. This lead to an understanding of the reasons why moving away from the church improved the profitability of the project. It also raises the question as to whether the home is the best venue for the project. In this project there remain a large number of challenges before the venture is truly successful.

Concluding notes

This abbreviated report on an application of RIND does not show the full complexity of the problem situation or the ability of RIND to provide insight into these problems. It does show RIND's potential to disclose different viewpoints or assumptions by different role players. It also shows that the viewpoints of role players differ as far as the nature of the problem area is concerned (the minister of the church and the investor of the funds had totally different perspectives of the problem). An understanding of these viewpoints may even lead to the relocation of the centre. It is important to note that the aim of this methodology is not to reach consensus between the role players, as other methodologies aim to do. It is an analytical tool to gain a better understanding of the problem situation and the inter-subjectivities guided by the intrinsic nature of the situation. This was also the case in the sewing project. Different parties emphasised different modal aspects, hampering consensus or the determination of the typical meaning of the project. A better understanding of the problem situation and the inter-subjectivities, however, may lead to a practical solution to the problem situation, accounting for all viewpoints. In future investigations RIND will be used to proactively guide understanding and to find a possible solution in a problem situation.

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Technology in an indigenous setting: community-based HIV/AIDS support

Debra Meyer

Introduction

After more than two decades of HIV/AIDS numerous technologies and strategies exist to address either the medical or social aspects of the problem. These strategies and technologies are also continually upgraded for improved relevance especially in the absence of the ultimate solution, an HIV vaccine. Because of the especially dire effects of AIDS in sub-Saharan Africa (75% of AIDS deaths in 2007, UNAIDS 2008a), potentially beneficial interventions originating in the developed world are directed towards this region post haste, but may be unsuccessful if implemented without serious consideration of the traditional ways of being which defines life on the African continent. Different views on development and the effects of transferring a technology into a society where it did not arise, are discussed elsewhere in this book by Strijbos (Chapter 11) where preference is given to a disclosive vision of development (an 'open' vision where societies are not only receptive to but also interact with technology). In this chapter too the argument is for the application of science and technology as being pliable and transformable through interaction with people and not just viewed as absolute determinants' of the survival of human beings. In the same manner indigenous cultures will eventually adapt to new situations like HIV/AIDS and adopt the changes needed to manage the challenge. Effort must however be made that people are sufficiently equipped for incorporating new ideas and technologies (See Van der Stoep, Chapter 10) into their existing framework.

Voluntary counselling and testing (VCT) as part of an HIV management strategy, is recommended internationally and promoted nationally to ensure that people find out about and respond appropriately to their HIV status. This techno-scientific concept involves voluntary participation in an HIV antibody test preceded and followed by counselling sessions. The guidelines of the process is developed and documented by UNAIDS, the World Health Organisation (WHO) and the Centres for Disease Control (CDC) and VCT is usually implemented as prescribed by these institutions as well. Because indigenous knowledge systems (IKS) and cultural practices have an impact on how Africans respond to sexually transmitted infections (STIs), adapting the concept and implementation of VCT to incorporate traditional points of view should contribute to its acceptability in a local setting. In particular, treatment of STIs has always been the domain of traditional healers and getting their buy-in may just simplify the

implementation of VCT and ensure that the community participate in the programme. Cultural beliefs could prevent locals from trusting and using a technology but if the implementation of the technology demonstrates cultural sensitivity this may make it more acceptable. There are various forms of IKS, which could assist with embedding VCT into indigenous life while maintaining respect for local culture. The introduction of Rapid HIV antibody test technology (within the supporting frame work of counselling) into an indigenous environment will contribute to the HIV/AIDS support mechanisms available to a community. However there are numerous reports on how beneficial technologies fail in local contexts if the necessary cultural sensitivity or consideration does not accompany its incorporation.

Here the involvement of a local community in the contextualisation of a technology for their benefit is presented. This chapter starts off by providing background information on the importance and value of VCT followed by an introduction to the case study (a community-based non-government organisation providing VCT services in Soweto, South Africa). Next, selected experiences of individuals exposed to community-based VCT at the case study site is provided followed by a discussion on important considerations for embedding techno-scientific practices into indigenous cultures. The chapter concludes with commentary on how cultural beliefs (especially the importance of traditional healers in treating sexual infections) and direct community involvement contributed to the acceptance and success of local VCT sites.

The origin and goals of VCT

It is now generally accepted that HIV/AIDS is the greatest challenge to public health in Africa. France and the United States of America are credited with the discovery of AIDS and so it follows that interventions are usually directed by Western societies as well. The CDC definition of AIDS and all interventions (e.g. treatment guidelines, reasons for implementing VCT, etc.) that centre on this definition are based purely on the modern scientific perspective of the disease, which does not consider the African view of AIDS. Obviously this is not a call for modifying or adapting the empirical evidence of what HIV is, but rather for an awareness of other frames of reference on disease and health in the context of HIV/AIDS as experienced by indigenous cultures where the modern support programmes have to function. African governments accept and implement Western AIDS-interventions according to Western guidelines as a means of securing international aid and perhaps also to avoid criticism of how they manage the epidemic. Because of the extent of the problem in southern Africa, governments here, previously criticised for inaction or at the very least inconsistent action, are under increasing pressure to implement promising interventions like VCT as prescribed by CDC/WHO. Providing and scaling up access to counselling, advice, testing and referral services in response to a disease that has reached astronomical proportions is essential. To be successful AIDS interventions in Africa have to take cognisance of the indigenous or traditional belief systems that has an impact on the disease on the continent.

Voluntary HIV counselling and testing (VCT) is a techno-scientific strategy designed to address issues associated with HIV infection. It is usually implemented as a key component of a comprehensive UNAIDS/WHO recommended HIV prevention and care programme. The guidelines on how to initiate and manage VCT are also provided by these organisations. VCT involves counselling on why the person requesting the service is concerned about possible HIV infection followed by a Rapid HIV antibody test done in the presence of the client and

for which results are usually available in less than 30 minutes. Test results are revealed during a post-test counselling session, the focus of which differs depending on the test result (prevention counselling for negative results; referrals, care and support in case of a positive test).

Scientific knowledge of HIV/AIDS indicates that early detection of the virus improves medical and psychosocial support for the infected individual (Sweat, Gregorich, Sangiwa, Furlong, Balmer, Kamenga, Grinstead and Coates, 2000: 113-21). The primary benefit of VCT is that it allows individuals the opportunity to determine their HIV status and in case of infection provides an entry point to treatment. Other benefits of VCT following its implementation and the monitoring of its effects indicated that these sites also enabled people to cope with the anxiety associated with HIV zero-status because of the provision of post-test counselling and referral to other support mechanisms and services. VCT could prevent mother-to-child transmission (especially if integrated with sexual and reproductive health services), strengthen awareness of healthy sexual behaviour, and provide all manner of necessary referral services. Integrating VCT with tuberculosis screening offers additional benefits by addressing a common opportunistic infection people with AIDS are faced with (Godfrey-Faussett, Maher, Mukadi, Nunn, Perriens and Raviglione, 2002: 933-45).

To increase access to care and support in developing countries, VCT here consists of both community and healthcare facility- (hospital/clinic) based services. Mobile VCT services further increase access to testing and counselling services with lower cost implications for the users. Evaluation of VCT sites in developing countries suggested the contribution of these services in positive behavioural changes (Merson, Dayton and O'Reilly, 2000: 68-84) and reduction in sexually transmitted infections. VCT was also able to reach male partners of women tested as part of routine prenatal care (Kawichai, Celentano, Chaifongsri, Nelson, Srithanaviboonchai, Natpratan, Byerer, Khamboonruang and Tantipiwatanaskul, 2002: 500). Utilising an incremental cost-effectiveness analysis model Sweat *et al.* (2000: 113-21) demonstrated the cost-effectiveness of VCT compared to the absence of the concept in Uganda and Tanzania. Research done and data collected at VCT sites in Thailand was found to be essential for planning and improving HIV/AIDS intervention strategies (Kawichai *et al.*, 2002: 493-502) in that country.

If VCT sites are utilised fully by the communities they serve, data collected could also answer questions with regards to prevalence of HIV in particular age or sex-groups in defined regions.

Case study: the Township AIDS Project

The Township AIDS Project (TAP) is a highly visible community-orientated organisation serving the greater Soweto area. The organisation was established in 1990 with the aim of providing education on HIV/AIDS (in a respectful and non-discriminatory manner through comprehensive programmes of action) and related health issues to historically disadvantaged communities within Soweto. Staff at the TAP VCT sites consists of qualified counsellors and nurses who offer pre- and post-test counselling at two permanent (in the Meadowlands and Klipspruit districts) and one mobile VCT sites. All people who voluntarily use the services complete a pre-test questionnaire. Following pre-test counselling a drop of blood is collected for HIV antibody testing. The HIV testing algorithm used is recommended by the South African government (Department of Health) and involves a Rapid screening

test, which in the case of positive results is followed by a confirmatory test. Rapid HIV tests are medically approved tests for assessing HIV antibodies. These tests function on the same principle as the more laborious enzyme linked immunosorbent assay-ELISA. Accredited VCT sites send samples that tested positive twice (in Rapids) off to the National Health Laboratory Services for ELISA confirmation and sometimes white blood cell count determination.

Soweto is the largest township in South Africa and is located 16 km southwest of Johannesburg in the Gauteng Province. The people of Soweto are black South Africans belonging to virtually all the indigenous groups found in the country, although the Zulu, Xhosa and Sotho groups predominate (Ramachander, 2004: 29). Women are the majority and account for approximately 57% of the 3.5 million estimated inhabitants. Modern day Soweto has a culture that is a mix of Western and ethnic influences. A large portion of the population remains deeply rooted in African culture and tradition, so much so that adolescents of both sexes are still required to attend initiation ceremonies and circumcision schools, where they are taught the customs and traditions of their ethnic group.

The dichotomy of Soweto's history has evidence of, on the one side severe exploitation and on the other (sometimes violent) resistance to oppression. The Bantu Education Act of 1953 was designed to teach black South Africans to know and accept their place in 'apartheid' South African society (Ramachander, 2004: 42). This system of oppression education strengthened what Freire coined as "a culture of silence" (Freire, 1993: 9-164). However, the 'anti-apartheid' movement used liberation education to mobilise inhabitants of Soweto into organised resistance efforts for changing the system leading to the many visible and violent clashes with the apartheid regime. The possibility therefore exists that some Sowetans (the marginalised still mentally oppressed) may simply accept VCT as an intervention from those who knows best, while many others (the liberated 'freedom' thinkers) could question its validity. Both groupings needs to be considered and an approach (consultative, inclusive and collaborative) to VCT implementation applied that cater for both sensibilities.

Data presented by Hewer, Motaung, Mathope and Meyer (2005) showed that 72% of people who utilised TAP's Meadowlands VCT services in 2003 were unemployed; unemployment in Soweto was estimated at 40% during that year (Ramachander, 2004: 29). All attendees were able to read and understand English as expected (more than 80% of Soweto residents understand and speak English according to Ramachander (2004: 30) and the majority considered themselves Christians (approximately 40% of Sowetans are Christian), 1% is Muslim, 46% believe in ancestral worship and the rest follow other forms of traditional worship. From 2003 to 2005 the age groups, socio-economic status and literacy levels of VCT attendees (reported by Hewer *et al.,* 2005: 54) were still unchanged.

The information provided in the following sections draws on published literature (Hewer *et al.,* 2005: 51-6), unpublished observations, questionnaires, interviews and transcribed focus group discussions with volunteers, TAP staff and two traditional healers with whom TAP have a working relationship. What is meant by a 'working relationship' is that these traditional healers refer their customers to TAP for HIV testing if they view the problem the customer wants addressed as being HIV-associated. Questions issued during focus group discussions or interviews concerned the manner in which people became aware of the VCT services, whether there was a perceived stigma attached to using TAP VCT, what the levels of awareness of HIV/AIDS was among volunteers, how people responded to the result of

the Rapid test, the reasons for wanting to get tested for HIV antibodies and how important the attitudes of VCT staff were to the volunteers. Because the VCT staff mentioned their interaction with traditional healers who referred clients to TAP, interviews were conducted with these individuals to determine the reasons for their actions, their opinion of VCT in general and TAP VCT in particular.

Documenting and understanding the volunteer experience should help improve VCT services. For this reason, this section ends with commentary on research possibilities at VCT sites.

Social marketing and VCT

TAP VCT services (initiated in 2002) are supported by the Department of Health (which supplies the organisation with free Rapid tests and salaries for counsellors). Because of a government marketing drive for VCT, very little marketing was done by the organisation itself and only a few people utilised the services in 2002 (only 420 in total). It was unclear at this point whether the slow response to using VCT was due to community members not knowing services were available or because of a lack of accepting this new technology at community level. To raise awareness of the VCT services and to encourage individuals to get tested, TAP employed several social marketing strategies in 2003. The use of traditional commercial marketing techniques (e.g. adverts and posters) to influence voluntary behaviour is defined as social marketing (Hewer *et al.*, 2005: 51). In addition to (1) promotional advertising in media (television, radio and newspapers), (2) pamphlets were distributed and posters positioned. (3) Door-to-door condom distribution and awareness campaigns were also carried out. Pre-test questionnaires completed by the 1 141 volunteers that attended the TAP VCT located in the Meadowlands district in 2003 were retrospectively analysed by Hewer *et al.* (2005: 51-6). To determine the efficacy of the marketing strategy, volunteers were questioned as to the means by which they were made aware of the VCT services. According to Hewer *et al.* (2005: 51-6) the three factors listed above and a fourth, (4) individuals who observed the TAP VCT sign and 'stopped-in', were combined to assess the efficacy of social marketing. As illustrated in Table 1, campaigning was shown to be the most effective of the four marketing strategies.

In 2004 no marketing was done and 827 volunteers used TAP VCT in the first eight months of the year. In 2005, 734 volunteers used the site in the first five months. The social marketing strategies mentioned above were again employed and three months later this number increased to 1 270 (536 volunteers used the services in three months). Word-of-mouth advertising was by far the single largest means by which individuals were informed of the TAP VCT service according to pre-test questionnaires. Awareness of VCT was raised through a friend, family member, partner or door-to-door campaigns. One can interpret this seemingly open discussion of HIV as a possible indication that the unwillingness to discuss the virus in township communities (previously observed by Kalichman and Simbayi, 2003: 442-7) as decreasing. This observation also suggests that the community was beginning to accept the reality of HIV and were looking for ways to address it (developing an AIDS discourse). The volunteers using VCT cannot necessarily be considered representative of the community where TAP functions are employed, but is rather an indication of the types of individuals influenced by the marketing strategies employed. These volunteers also represent those individuals who are accepting of the scientific basis of VCT and whose cultural beliefs did not negatively influence their involvement in the programme. It may even be that

these individuals' modern view of the world made them receptive to this new concept without needing much persuasion.

Stigma attached to using VCT

HIV/AIDS-related stigma is the prejudice and discrimination directed at people living with or perceived to be living with the virus or the syndrome. The fear of negative reactions from community members, friends or family could discourage people from entering VCT sites and seeking available prevention and care services. As explained by one volunteer, "If you go in there, you must be positive". In South Africa, VCT services are available in community-settings or are healthcare facility-based. Users of TAP based VCT found these services easier to use than to visit VCT sites at clinics or hospitals. Being seen entering a VCT site was a concern and volunteers viewed their chances of being seen entering the TAP VCT site less likely than the VCT sites at clinics and hospitals. The latter sites were considered crowded because of the other services (primary health care) provided there. The locations of the hospitals and clinics were also considered more restrictive as were their operating hours. In addition, TAP volunteers and staff felt that the number of people sick with AIDS who could potentially be found at clinics or hospitals would put a strain on the services available and also have an impact on the psychology of the person still to be tested.

HIV/AIDS awareness of VCT volunteers

The assumption regarding the awareness of HIV/AIDS in townships is generally that people know more than those in rural areas but that this knowledge is still very basic. Every one utilising TAP sites knew and was accepting of the fact that HIV was the causative agent of AIDS. Sexual or body fluid transmission was also understood and accepted, but some people added witchcraft as a means of contracting the virus. When given the opportunity to ask questions the level of awareness among volunteers varied. The majority of volunteers wanted more information on exactly how the Rapid HIV test worked and how reliable it was. During the focus group discussions with TAP staff they indicated that one of the more difficult questions asked by a small number of volunteers was in relation to discordant couples (how one person in a couple could test positive and the other negative for HIV antibodies). A number of young adults (24-35 years old) questioned the testing algorithm followed in developing countries compared to that in the developed world.

The VCT testing algorithm used in Soweto is recommended by the Department of Health in South Africa and taken from recommendations of the WHO and CDC. This algorithm involves using two different Rapid tests to determine someone's HIV antibody status. In contrast the testing algorithm in developing countries involves one Rapid test and confirmatory analysis using an ELISA or Western blot (a Western blot is a more involved and sophisticated antibody test used to confirm HIV status). Some volunteers view the difference in testing algorithms as the 'West' approving/suggesting an inferior testing approach for Africa. The explanation that the reason for the difference as being cost issues in resource poor and high prevalence areas is usually not accepted. (At TAP VCT sites, if the screening and confirmatory Rapid tests are both positive, samples are sent to South Africa's National Health Laboratory Services where ELISA confirmation can be obtained). The questions regarding Rapid tests (and wanting information on discordant couples) illustrates that the assumption of HIV literacy in the townships should be viewed with caution because even though it may be mostly basic in nature, some

volunteers have advanced enough HIV knowledge to pose challenging questions. Because of the very recent 'apartheid' history of South Africa a specific generation (who grew up during the 'apartheid' years) has a tendency to distrust any recommendations from the developed world that they associate with superiority complexes and a tendency towards discriminatory behaviour. This grouping includes people who were among those residents of Soweto who played a major role in the 'anti-apartheid' movement.

The number of people using TAP VCT sites increased following awareness cam-paigns. These campaigns addressed basic HIV information and explained the rationale behind VCT; however questions regarding discordant couples indicate that volunteers also had their own HIV background knowledge which undoubtedly contributed to their decisions on AIDS (and getting tested). Volunteers obviously discussed (aspects of) HIV because word-of-mouth brought them into the sites. As mentioned before, some Sowetans (perhaps still under the influence of apartheid era inferiority complexes) may simply accept VCT as a must-use intervention from those who knows best, while many others (the liberated 'freedom' thinkers) questioned the testing algorithm and instinctively associated the difference between Europe and Africa (in VCT testing algorithms) as being based on discrimination. As expected those who accept and those who question VCT were represented at these sites, but TAP staff were able to accommodate and successfully service both groups.

Responses to test results

How volunteers responded to the reality of personal HIV infection varied and held differing implications for the disclosure process (whether the person tested would inform others of the result, especially their sexual partners). According to focus group interviews with VCT staff that observed the reactions of volunteers following an explanation of the Rapid test results, there was less of a reaction if the person utilised VCT to confirm their status (the result was then anticipated or expected). Counsellors noted people shrugging when informed of a positive result while some appeared indifferent. Other emotions noticed for a positive antibody result were anger, despair and resentment, most of which appeared to lessen following post-test counselling. Self-stigmatisation was also evident with the volunteer attributing their status to immoral or bad behaviour and viewing their status as punishment from God (as previously mentioned, most Sowetans are Christians). The range of emotional responses observed following positive antibody results had an impact on the content and direction of post-test counselling. Negative Rapid antibody test results were always met with relief and an indicated commitment to safer sexual practices. None of the volunteers expressed distrust at test results nor questioned test validity, suggesting most of them had modern views about HIV/AIDS or that awareness campaigns and counselling sessions were successful at conveying the value of VCT.

Reasons for getting tested

Reasons for attending the VCT site as recorded in 2003 (Table 1) had not changed three years later. The community where TAP functioned could be viewed as being high risk (people engaging in activities that elevate their exposure to HIV). Answers to why the individual was being tested included: having multiple partners, not trusting a partner's fidelity and involvement in unprotected sex. Also according to pre-test questionnaires, condom use was the exception rather than the norm. Very few individuals got tested at TAP for insurance

purposes or wanting to know their status in the absence of a sexual relationship. Some volunteers indicated that they wished to be tested as they were entering a new relationship or wanted to start a family. On a relatively small scale, this demonstrates responsibility and an inclination not to transmit the virus. The majority of people utilising VCT indicated an expectation of a positive response mostly because of having tested elsewhere and wanting confirmation of the first result. There was mention of costs (testing at TAP was free because the Rapid test kits were subsidised by government) and easy access/convenient location influencing the decision to test at that particular VCT site. Whatever the reasons for visiting the VCT site, no one ever declined being tested. Counselling could have contributed to this state of affairs, but it is also possible that the reality of HIV/AIDS in the township or the country as a whole and the fact that people talk about the 'big disease' encouraged action for self-preservation.

Knowledge and attitudes of staff at VCT sites

Some volunteers used their visit to the VCT site as an opportunity to obtain more information on HIV and AIDS. As mentioned earlier, questions ranged from relatively easy, "How does the Rapid test work?" to more difficult, "Why is one half of a couple sometimes uninfected despite exposure to HIV?" Because TAP routinely arrange for their staff (lay counsellors and the retired nurses who administer the Rapid test) to attend refresher courses, they were able to address questions raised by volunteers. TAP regularly request lectures (by biomedical scientists) on testing possibilities, treatment and new developments in the field of HIV research. TAP staff was also trained to refer difficult questions to medical doctors at other healthcare facilities and/or to request volunteers to give them time to research the answer. These approaches were viewed as more acceptable than taking a risk and inadvertently giving the wrong answer.

More important than the knowledge levels of the VCT staff, was their attitude towards volunteers. How they responded to the person when they first arrived and how they informed them of the antibody test result following testing was very important in determining whether that person would use the VCT site again. If satisfied with the services provided, many volunteers returned and used the site for supportive and ongoing counselling. Returning volunteers indicated that they were certain that the VCT staff valued confidentiality. All staff members indicated a commitment to confidentiality because they feared legal repercussions if they revealed someone's status to any one else.

The lay counsellors and nurses (who were primarily female) were all accepting of the modern science view of AIDS and the value of VCT. They obviously had formal training on HIV/AIDS (based on facts generated in the West) but their cultural reality had them witnessing that, "most African men still believe in their right to demonstrate their manhood through a number of children or female conquests", men object to using condoms because "they spoil the feeling" and high numbers of younger "women contract HIV because of their status in society". All of this TAP staff say, make them dedicate their time (at low or no pay) to the cause, "like in apartheid days we mobilise against a common enemy again."

Traditional healers

The two traditional healers interviewed here referred clients to TAP sites and other Western health services and were even inclined to use these services themselves. Both had been exposed to government recommended HIV training (traditional healer training is included in the national STI strategic plan for the country), were familiar with and accepting of the concept of VCT and felt that TAP provided a valuable service to the community. These traditional healers had different views on aspects of HIV medicine; one accepted highly active anti-retroviral therapy as slowing the progression to AIDS and knew that HIV drugs were toxic while the other believed that a 'cure' for HIV exists. The latter, having been led to a cure "by his ancestors" was now trying to convince scientists to analyse and prepare extracts from a plant he "must hold in his hands and pray on" prior to it showing any activity. The HIV 'training' he experienced translated into him valuing the fact that scientific proof of his claims would give him rights to fame, royalties and perhaps even the eternal gratitude of his community and the world. His tenacity was such that he even had a letter of support from a government agency indicating the possibility of funding for scientists willing to assist in his quest for scientific proof of his 'cure'. Both traditional healers viewed the training and partnerships with Western medicine as one-sided because they (the traditional healers) were expected to accept what Western medical science reported on HIV, but their (traditional healers) knowledge and services were not taken seriously by Western medical practitioners. These traditional healers were adamant in their belief that natural remedies and traditional healing had a role to play in treating AIDS ("for cleaning the blood") and that 'true' partnerships with relevant stakeholders (medical doctors, policy makers, etc.) could address the problem of HIV more effectively. The 'training' these traditional healers received added modern scientific concepts to their frame of reference, but did not change their belief and trust in traditional healing.

Research opportunities at VCT sites

The accuracy of widely publicised HIV statistics is constantly questioned (Johnson, Dorrington and Matthews 2007: 135-40). Adequately utilised VCT sites provide access to data from defined groups within a community, which may lead to a more accurate extrapolation of numbers of infected individuals or prevalence rates for the particular area where the site operates. In depth analysis of answers to pre- and post-test questionnaires could give insight into various aspects of the volunteer experience. For the research to be beneficial to all stakeholders (a means of demonstrating that the community-based organisation provides quality services, a genuine interest in the community for universities and better tailored interventions for the communities) the research must be joint, partnerships between tertiary institutions where research expertise reside and organisations who have access to and a relationship with the community. To make the experience beneficial and sustainable, research expertise (e.g. data collection skills) can be transferred (through training) to the organisation, which would add to their portfolio of expertise making them more attractive to potential funding agencies.

The enabling or disabling factors for VCT (e.g. systemic, structural, resource or policy related), a comparison between community and clinic-based VCT services, more detail on the impact of religion and culture on the utilisation of VCT are all possible areas for

investigation. Research done and data collected at VCT sites are important for improving HIV/AIDS intervention strategies (Kawichai *et al.*, 2002: 493-502).

Embedding techno-scientific practices into indigenous cultures

The magnitude of the AIDS problem (adult prevalence exceed 15%, UNAIDS, 2008b) justifies the large-scale implementation of VCT in South Africa. National guidelines on how to establish VCT are sponsored by CDC. The national STI strategic plan advocates capacity building through training (of many stakeholders) including traditional healers and healthcare workers on HIV/AIDS and VCT. All reference to training always recommend training on the modern scientific perspective of HIV/AIDS, very rarely is any indication given that stakeholders be reminded that most South Africans do not define the disease or its causative agent the way modern science does. Implementation of VCT exactly as prescribed assumes that non-Western societies have to or will adapt to the modern scientific understanding of AIDS and indigenous communities will automatically embrace the new techno-scientific approach to HIV prevention. Accepting causality between HIV and AIDS implies that VCT should be universally applicable (in other words VCT is culturally neutral). If one accepts development as the transfer of technology from modern societies to less advanced ones, one must accept Western recommendations as no-alternative absolutes, irrespective of one's own values, traditions, beliefs or culture. Modernisation does not view the worldwide erosion of cultural diversity brought on by expanding globalisation as problematic, and instead argue that traditional ways of life interfere with 'true' progress (Goudzwaard, Van der Vennen and Van Heemst, 2007: 139-55). HIV/AIDS is a global problem but there are different patterns of spread of the infection in different countries and across different cultures. This calls for locally developed solutions or at the very least modified or modifiable international interventions. A disclosure process supports adapting VCT to the normative core of African society (Strijbos, 2006; Strijbos Chapter 12 in this volume). A challenge to the implementation of VCT is to apply this techno-scientific concept to a traditional setting without forced transformation of local culture or belief systems. Culture adapts to new situations naturally, as and when needed while preserving what's valued and unique. Forced change is usually met with revolt.

Introducing VCT at community level is difficult but not impossible. Firstly, the normative response of South African township communities is distrust of dictated (authoritative/ top-down) interventions. Because VCT originated in the 'West' its implementation could be viewed as interference from Western societies. (This was seen at the case study when volunteers questioned the testing algorithm and TAP staff had to be empowered enough to address concerns). Then there are difficulties associated with the implementation of a techno-scientific approach based on advanced modern science principles at the community level where advanced science training is not usually found. Lastly the impact of local realities and traditional belief systems on the implementation, the concept and the process of VCT must be considered. Many examples exist of how a useful technology failed if it did not take into account the broader view, the social-technological context (Strijbos and Basden, 2006: 1-16). VCT must therefore be contextualised to address the mentioned concerns.

Treatment of sexually transmitted infections in Africa has historically been the domain of traditional healers (Green, 1994: 14). On the other hand VCT, a modern science-based intervention with implications for sexually transmitted disease has to be adapted to take

cultural practices into consideration. There is therefore a natural synergy between the two, why not use one to improve the other? It is possible that if traditional healers support VCT, the community would too. This is not to say that if they (traditional healers) did not support VCT then it should be abandoned, but rather than getting their buy-in would be beneficial to the community simply because the majority of community members would be seeking traditional healer assistance first. (Traditional healers with offices in close proximity to TAP sites viewed VCT favourably – detail in a subsequent section).

The argument here is for adapting VCT to a community-based understanding of AIDS, to view the problem from the community's point of view allowing them to contribute to the solution and then collectively finding solutions. Education can function as the means by which men and women deal critically and creatively with reality and discover how to participate in the transformation of their world. If you address an issue from the context of the community and develop a discourse from their reference point, people become empowered enough to find their own solutions (Freire, 1993: 94).

Indigenous knowledge systems

Indigenous knowledge systems, beliefs and cultural habits have an impact on life in a township and so too on the use of VCT services. Indigenous knowledge systems can be defined as a "people's existing or traditional ways of understanding their own world" (Green, 1994: 21). McClure (1989: 1) explains IKS as the body of accumulated wisdom that

> … has evolved from years of experience and trial-and-error problem solving by groups of people working to meet the challenges they face in their local environments, drawing upon the resources they have at hand.

Examples of African IKS include developing a way of growing maize under conditions of uncertain rainfall or the discovery of natural medicines that relieves the symptoms of high blood pressure or headaches (Green, 1994: 21). When introducing a modern or scientific technology based on a system deemed superior (technological superiority) to pre-existing knowledge systems, the implicit or explicit assumption is that traditional knowledge systems is irrational and dysfunctional, that it is based on myths or superstitions and that it remains an obstacle to the benefits of new technologies (Compton, 1989; Warren, Slikkerveer and Titiloa, 1989). This way of thinking ignores the achievements of IKS appropriate to the local community. An understanding of health-related IKS is essential if health improvement interventions are to be culturally appropriate and therefore effective, such knowledge is accessible through traditional healers and community leaders (Green, 1994: 21). Indigenous knowledge systems may open up other aspects of reality compared to those disclosed by the modern-scientific approach.

Indigenous/Traditional healing

Many people in Africa believe that disease is inevitable and may among other reasons result from supernatural causes (Winstanley, 2004: 1331); this belief applies to AIDS as well. Some people who visited TAP VCT sites indicated a belief that envious or jealous people could 'send' HIV to them through *muti*-using witchcraft. Ashforth (2005a: 211-42) reported on the belief in a link between witchcraft and HIV in the Soweto area. As mentioned before,

treatment of sexually transmitted diseases has always been the domain of traditional healers in Africa (Green, 1994: 14). Considering an understanding of HIV/AIDS as having a supernatural origin and accepting the fact that treatment from a traditional healer will be sought first, the participation of these healers in HIV support programmes are essential.

Traditional healers based in townships are more readily available than Western healthcare practitioners, they communicate easily with their patients because they share the same language, culture and belief systems (Winstanley, 2004: 1332) and are often the first frontier for treatment, now also possibly because of the difficulties in providing treatment to everyone who needs it. People who have initiated anti-retroviral therapy will also still follow the advice of traditional healers (Nattrass, 2005: 1-23).

How a person responds to disease is often influenced by more than just symptoms, that the illness could negatively affect the household (cost of treatment could deplete money for food) play a role as well. The traditional healing option is often cheaper (the norm is that people go to the traditional healer to be cured and to the Western doctor to be treated). Traditional healers – *inyanga's* (herbalists) and *sangomas* (diviners) – are encouraged by the South African government to receive training on HIV, VCT and anti-retroviral therapy. These traditional healers are trained to understand the problem from the modern-scientific perspective while medical doctors are not expected to receive training on the view of traditional healing.

> The use of the term training is also somewhat derogatory or at least condescending because it implies that traditional healers are somewhat deficient, but once 'trained' (as if remedially) by some method only the West can recommend, they can be enlightened and their practice improved (Green, 1994: 20).

Traditional healers are open to collaboration (Green, 1994: 21) with governments and Western medicine and will following 'training' incorporate what they deem valuable into their practice. This was certainly the case with the traditional healers interviewed in this study.

Characteristically traditional healers, according to their patients, provide "once and for all care" sometimes involving scarification or burning (Winstanley, 2004: 1331-7) while Western medicine is considered continuous and long term. Education on evidence-based traditional or medical health care may be a means of reconciling these opposing views. Evidence for the value of herbal traditional remedies is mostly anecdotal; however these treatments are also associated with decades of use and are used by pharmaceutical companies for obtaining drug leads. This knowledge (and other advantages related to traditional healing) should be imparted to medical doctors as much as traditional healers are educated on the Western medicine point of view. Rather than the 'banking' approach to educating people on HIV, Freire's (1993: 56) liberation education approach of partnerships between educators and their audience in which both (traditional healers and doctors) are simultaneously teachers and students is a better approach. This democratisation of the content and method of (HIV) teaching incites inquiry, creativity and critical thinking which impels the constant unveiling of reality (Freire, 1993: 62). The extent of the AIDS problem in Africa is such that all contributors to possible solutions should be valued and their expertise, no matter how rudimentary, utilised.

Given the link between sexually transmitted infections and the heterosexual transmission of AIDS there is urgent reason to treat and prevent STIs; to curtail the spread of HIV infection (Green, 1994: 20). Seeing that Africans view traditional medicines as especially effective in treating STIs, for better or worse traditional healers treat most STI cases, why not collaborate with them in this area (a concept supported by UNAIDS). Parry (2004: 11) suggests that medical doctors in Africa should "seek to understand local culture" and be aware of the beliefs of their patients. Green (1994: 22) goes so far as to suggest the biomedical training of traditional healers for the treatment of STIs, routine and appropriate referrals between the two groups, improving Western medicine's knowledge of traditional healers and that cultural sensitivity of allopathic health workers should be increased. Godfrey and Gill (2004: 3) also recommends that medical schools incorporate traditional community aspects of health care in their curricula.

Brief commentary on religion and other health-related practices

Another type of indigenous healer is the 'religious faith healer' found in Christian and Muslim religions (Green, 1994: 18). Faith healers are as prominent as *sangoma*, and herbalists in Soweto. There is also the resurgence of ritual slaughter of animals to appease the ancestors for all kinds of reasons including the cure of disease. Christian churches play a central part in community life in Soweto, as does indigenous African Christianity where traditions (ritual practices) and biblical values are combined (e.g. Zion Christian Church). Home remedies (*huis raat*) are another traditional practice applied to health and wellbeing in South Africa and usually consists of herbal extracts or other tinctures prepared at home and having been passed on from mother-to-child for generations. Many texts inform on the possible toxicity of these concoctions (Parry, 2004: 11) while others comment on the beneficial and safe home remedies that have the advantage of being tested over generations and which actually alleviate symptoms (Green, 1994: 20-1).

Concluding comments

An analysis of VCT sites managed by the Township AIDS Project in Soweto suggests that input from the community improved the chances of the concept succeeding and being accepted locally. (Community members staff the sites and were instrumental in the existence of the organisation in the first place; in addition they campaign/talk to their neighbours on addressing HIV/AIDS). Social marketing and an understanding between traditional healers and TAP contextualised the concept of VCT for successful implementation in the local community. Social marketing (commercial marketing techniques applied to a health issue) and counselling increased awareness and understanding of the concepts involved while traditional healers who command more respect in the treatment of sexual diseases made the techno-scientific approach more acceptable by recommending its use. Indigenous knowledge systems and cultural habits clearly had an impact on the use of VCT. Government managed national VCT campaigns using newspapers, television and radio introduced the concept to the country at large, but community-based social marketing especially 'word-of-mouth' was very important in making Sowetans aware of what VCT was and where it could be accessed. Word-of-mouth also contributed to the concept being viewed as 'part of us' rather than it being 'forced on us'. How TAP staff treated volunteers contributed to whether the volunteers would return to the site and/or recommend it to someone else.

A holistic approach to VCT considers all the interdependent parts of the system; users and providers of the service as well as the technical and scientific aspects thereof. Rapid HIV antibody tests allow quick access to reliable HIV status information, but integration of this technology at local level must be properly (and repeatedly) explained to decrease distrust. There was some stigma attached to using community-based testing services, but to a lesser extent than healthcare facility-based VCT. The awareness of HIV in the surrounding community varied from very little to advanced AIDS information. How participants reacted to the reality of being HIV positive guided further counselling and in the larger scheme of things should inform interventions for improving services provided at VCT sites. VCT is promoted as the first step towards a safer lifestyle in the presence of AIDS, but practically it was used for confirmation of infection or for diagnosis instead. Volunteers used VCT sites to get answers to their questions on HIV and AIDS. The knowledge level of the counsellors and nursing staff administering the tests was challenged with very easy and complex questions suggesting the routine upgrading of counsellor knowledge to empower them to handle challenging questions.

The potential benefits of well-functioning VCT programmes for prevention and control of disease and for community development are numerous. However, this approach to HIV support cannot be successfully implemented without the input of the community and without acknowledging that their cultural value systems could support or derail the process depending. In addition, a community must recognise its problem, want to do something about it and be ready to invest time and resources to address the problem. The Township AIDS Project came into being because of community members wanting to educate their own on HIV/AIDS. TAP's decision for implementing VCT stems from those community members who are TAP staff noticing that "our people are dying". The desire and drive for action came from the people.

Because of globalisation, technologies will be taken up into a society. If instead of being bystanders allowing infiltration, communities participate in the incorporation process, the value of the technology is more readily appreciated.

Glossary

Centres for Disease Control	(CDC)
Enzyme Linked Immunosorbent Assay	(ELISA)
Indigenous Knowledge Systems	(IKS)
Sexually Transmitted Infection	(STI)
Township AIDS Project	(TAP)
Voluntary Counselling and Testing	(VCT)
World Health Organisation	(WHO)

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Table 1: How individuals found out about the Meadowlands VCT site in relation to their reasons for using VCT services (*Adapted from Hewer et al. (2005)).*

	Friend/ partner /relative	Referral by doctor	Campaign[a]	Media	Pamphlet/ poster	Other Saw site[b] Internet		Did not answer/ illegible	Total N	%
Reasons for attending										
To learn or confirm status	165.33	63.83	65.25	43.33	31.25	15	1	15	**401**	35.1
Unprotected sexual relations	141.5	25.5	43.5	42	21.5	3		7	**284**	25
Concerned with health	37.5	36	10	10.5	9	3		2	**108**	9.5
Distrust in partner	46	7	14	11.5	10.5	2		1	**92**	8.1
Did not answer	37.5	5.5	5.5	6.5	9			7	**71**	6.2

	Friend/partner/relative	Referral by doctor	Campaign[a]	Media	Pamphlet/poster	Other	Saw site[b] Internet	Did not answer/illegible	Total N	%
Partner/ex partner or baby ill, HIV+ or deceased	39	5.5	10	7.5	1	2			65	5.7
Wanting to get married or have a baby	12.5	3	2.5	3	2			1	24	2.1
Condom breakage during sexual intercourse	13	1	1	2	2			1	20	1.8
Blood to blood contact	12		4.33	0.33	1.33			1	19	1.7
In a new relationship	10		0.5	3.5	2				16	1.4
Referred by clinic/doctor	1	11	0	0					12	1.1
HIV+ or deceased relative or friend	6.5		0.5	1.5	3.5				12	1.1
To obtain a social welfare grant		4	1		1				6	0.5
Pregnant or breast-feeding	2.33	1.33		0.33	1				5	0.4
Victim of sexual violence	1		1		1			1	4	0.4
For insurance purposes	1								2	0.2
Total										
N	526	164	159	134	95	25	1	36	1141	
%	46.1	14.3	13.9	11.7	8.4	2.2	0.1	3.2		

[a] Refers to TAP-directed campaigns (HIV/AIDS awareness, condom distribution and door-to-door visits).

[b] Refers to people walking past, seeing the signs for VCT services and deciding to enter.

[c] Actual numbers and percentages provided.

Contextualising Biomedical Practices in a Traditional Cultural Setting: A Discussion of Three Models

Henk Jochemsen and Carolus J. Reinecke

Introduction

The populations of most economically advanced societies have high expectations of science and technology. Government authorities as well as society at large see them as the principal means to improve their health and living conditions. This is not without reason. The rise of modern science and technology has greatly facilitated opportunities to take advantage of human skills and natural resources. This has raised production capacities and general prosperity and enhanced living conditions for most people in the countries that experienced techno-scientific and economic development. The march of modernisation took place primarily in Western Europe – somewhat later in North America – over the course of several centuries. More recently, in the nineteenth and twentieth centuries in the slipstream of colonisation and globalisation, economic modernisation has reached and continues in other continents. The concepts of modernisation and progress, in terms of economic growth through science and technology, converged in the notion of 'development' and as it came to be used in the mid-twentieth century in the political concept of 'development aid'.[1] One of the clearest manifestations of this thinking is expressed in the inaugural address of President Truman before the US Senate in 1949.[2] In his view, science and technology are 'value-neutral' instruments to bring about 'progress'.[3] However, the experience of 60 years of development aid demonstrates that the application of modern science and technology does not necessarily lead to increased prosperity for society at large.

This observation raises some questions. First, we question the value-neutral character of modern science and technology. Second, we ask ourselves if it is possible to introduce modern techno-scientific practices into cultures that are still (at least partly) pre-modern, in a way in which those practices contribute to an improvement in the living conditions of the people involved. In this chapter we attempt to indicate a way in which this could be done. We

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1. In the Netherlands the political correct term has become 'development cooperation' since the seventies of last century.

2. http://www.bartleby.com/124/pres53.html: Truman states, "Greater production is the key to prosperity and peace. And the key to greater production is a wider and more vigorous application of modern scientific and technical knowledge."

3. For a further discussion on the concept of development and the role of science, see Adams, 2009: 116-40; Van der Walt, 2006: 55 ff.

propose three models that can be useful in the context of techno-scientific achievements. Before doing so, however, we will briefly deal with the concept of modernisation and the supposed value-neutrality of modern science and technology.

Modernisation and development

Modernisation and science

Modernisation can be understood as a change in the relationship between mankind and reality. In pre-modern cultures, both in Europe and in other parts of the world, physical and spiritual reality are seen as closely related and interconnected. In the process of modernisation as experienced in Europe, physical reality was conceptualised as separated from spiritual reality. Moreover, the relation with physical reality became characterised more and more by objectification and rational reasoning. This new relationship became the centre of modern science that in its turn influenced the way people in general related to physical reality. Reality was no longer considered as divine creation that harbours an intrinsic normativity. In the modern approach the world is perceived as value-free and that can be used as the raw material for the technological (re)construction of a universe according mankind's own views. From the beginning this approach has been motivated by a pursuit for power and control over reality (Schuurman, 2003; Goudzwaard, 2007: 139-46; Staudinger, 1976; Noble, 1998).

These developments have contributed to changes for the better in society, including greatly enhanced conditions of those who can use them. But they have not been without problems. Due to the general neglect of the limitations of the methods used in science and technology and the uncritical embracement of their achievements, science and technology have become the lenses through which reality is studied and interpreted. As a result the abstractions that characterise modern science and technology, and have a legitimate place in them, also guide the application of technology in society at large. This entails forgoing the intrinsic normativity in reality. Exploitation of the natural environment, fragmentation of social structures, and the experience of life and the world as meaningless are typical consequences of overestimating the techno-scientific approach to reality. It is one thing to use a certain method to study reality, to set up models of particular phenomena and to have specific questions answered in a way that allows effective intervention. It is quite another thing to consider these abstract models as true representations of reality itself, thereby omitting the notion that the models are a reduction of reality. (E.g. reducing heredity to nothing but the transfer of DNA).

Development and modernisation

Development aid understood in the sense mentioned above bears the stamp of modernisation including the overestimation of science and technology. A consequence has been that in supporting social and economic development the specific cultural conditions that prevailed often were not taken sufficiently into account. According to Van der Walt — and we agree —this is the main cause of so many failures of 'developmental' interventions (Van der Walt, 2006: 55 ff.). In this context 'cultural conditions' should be interpreted in a broad sense, including social patterns, hierarchical social structures, concepts of leadership, of labour, etc. But because of its intrinsic character, modern technology is not a value-neutral

instrument to achieve ethically desirable goals. It is a value-laden force that influences the self-understanding of people and social relationships. Hence, the introduction of new technologies into a culture foreign to the cultural background of those technologies will not leave those cultures and societies unchanged.

> In that sense all technology is a new organism that insinuates itself into living cultures through altering them irrevocably (Bloom, 1988: 13).

It appears that the unanticipated consequences of new technologies and knowledge in traditional communities, especially in premodern settings, can distort their sense of identity and social cohesion (Michie *et al.,* 2001, Gordon *et al.,* 2005). We believe that traditional communities could benefit from modern technology, including biomedical technology, provided these potential benefits are introduced in a way that respects the societies' cultural identity and allows their members to integrate them into their concepts of life, health and community. It is important that the implementation of new technologies and of medical knowledge that follows from them – such as molecular studies that disclose genetic information about individuals and their families – is preceded by careful consideration and reflection on its likely impact on people. It must also respect their social structures, and traditional health care. Such ethically responsible implementation of new technologies requires qualitative and quantitative research in advance on the attitudes and opinions of the target communities on the technologies and the information they provide.

The main task we set ourselves for the rest of this chapter is to discuss three models that can help in designing such research and interpreting the results. To avoid an overly abstract exposition, however, we will present and discuss these models in the context of a specific scientific and technological development in the biomedical field. This is the use of the emerging benefits derived from genomics and metabolomics in the prevention and treatment of HIV infection prior to its expression as AIDS. Before discussing the theoretical models, we will briefly present these biomedical developments and their possible implications.

Biomedical research and its possible social impact

Need for HIV/AIDS research

One of the main health problems in South Africa is HIV/AIDS.[4] Pending the population group under consideration and based on voluntary counselling for HIV-infection figures as high as 20-30% may be encountered. Some unverifiable estimates predict that as much as 40% of some social groups may be HIV-positive. Without treatment this infection leads in almost all cases to the development of AIDS even though the time scale of this process varies roughly between five (5) and 15 years. Healthcare strategies involve both programmes aiming at the reduction of the rate of infection of new people and of developing and implementing treatments of HIV-positive persons to postpone the development of AIDS. Important in this context are the so-called antiretroviral (ART) drugs that significantly slow down the pathological process in HIV-infected persons.

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4.   See e.g. http://www.thebody.com/content/art52091.html.

The Academy of Science in South Africa (ASSAf) recently constituted an expert panel to address "the role, if any, of nutritional intervention in the integrated management of the epidemics of HIV/AIDS and Tuberculosis." The panel reported[5]:

> Appointed by the national Academy of Science in a country sorely afflicted by the triple epidemic of HIV infection, active TB and malnutrition, we have discovered to our intense disappointment and alarm that the base of reliable evidence relating to nutritional influences on the course of the two rampant infectious diseases is woefully small... Without knowledge, and specifically knowledge that is based on reliable evidence that is obtained within the local, relevant context, the suffering people, and the extended nation of which they are so large a part, cannot be effectively helped.

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One key recommendation advocates

> ... the search for better therapeutic and/or preventive strategies, which should be taken up in the South African basic and clinical research system as a matter of great urgency.

New approaches and treatment strategies are thus urgently needed, if only because of the adverse side effects of commercially available ARVs (May and the ART, 2006: 451). This requires further research into the pathology of AIDS development. One of those new approaches and strategies is the use of genomics and metabolomics.[6]

Genomics and metabolomics in dealing with HIV/AIDS

Genomics is the study of the genome, the genetic endowment of an organism; in medicine this is the human being. Small genomic variations between individuals appear to be related to differences in vulnerability for diseases. The genomic variations express themselves in the cells and organs of the body in metabolic differences, that is differences in the content of the cells with respect tot proteins and all kinds of smaller molecules (metabolites) that are involved in the decomposition of food and synthesis of new molecules for the body and thus play a role in the biochemical processes that form the substrate of biological life. Metabolomics is the study of those metabolites and gives insight into the metabolism of individuals. Diseases often imply a change in the composition and concentrations of some of these metabolites. By comparing

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5. HIV/AIDS, TB and Nutrition – Scientific inquiry into nutritional influences on human immunity with special reference to HIV infection and active TB in South Africa, published by the Academy of Sciences of South Africa (ASSAf), 2007: 199.

6. The recent establishment of a state-of-the-art Metabolomics Platform at North-West University in South Africa opens a unique opportunity to embark on an extensive problem-orientated co-operative and interdisciplinary research project in this regard.

the composition and the concentrations of these important and characteristic metabolites in both healthy and diseased individuals, potentially valuable information and insight into the pathological process can be derived.

Infection with HIV can develop into full-blown AIDS through complex biochemical and immunological processes, of which effectiveness in resisting the manifestation of HIV/AIDS is related to the genetic and metabolic characteristics of the individual, as well as exposure to other infectious conditions. This implies that research in genomics/metabolomics can in principle contribute to defining an individualised strategy for enhancing the resistance of HIV-positive individuals to developing AIDS (Gil, Martinez, González, Tarinas, Alvarez, Giuliani, Molina, Tápanes, Pérez and León, 2003: 217). This is clinically relevant because the vulnerability of people due to their genetic predisposition can be substantially lowered by lifestyle changes, medical interventions (for example, by drug treatment), and through natural interventions like diet and the use of antioxidants.

Advances in the field of genomics and metabolomics make it possible to uncover information on predispositions and vulnerabilities to diseases and on the way these manifest themselves in individuals. This knowledge may lead to new treatment strategies, including the use of specific diets. The relevance of genomics/metabolomics for health policy, drug design and clinical practice in general is therefore growing rapidly (Nicholson and Wilson, 2003: 668).

social-ethical research

There are several reasons why such research should be preceded by social-ethical research, in particular in traditional rural communities in Africa. An overriding reason, as indicated above, is that these new biomedical technologies are manifestations and vehicles of modernisation with its specific approach to reality and values. Their large-scale application, if not carefully embedded and ethically regulated in a broader two-way communication process, could impose those values on the targeted communities. This could cause social and cultural disturbances that may severely affect those communities.

There are also more specific reasons to perform such social-ethical research in the case of genomics/metabolomics. We have stated that the latter provides information on individual health risks in the form of individual predispositions and vulnerabilities to diseases. This information can affect people in at least two ways. First, it can have psychological consequences (in regard to the concept of self and of the family) and hence on the experience of well-being (Gordon, Gordish-Dressman, Devaney, Clarkson, Thompson, Gordon, Pescatello, Hubal, Pistilli, Gianetti, Kelsey and Hoffman, 2005: 1047; Michie, Bobrow and Marteau, 2001: 519; Stempsey, 2006). Second, it may lead to people being categorised with respect to health risks and hence to possible healthcare costs. This knowledge can be used to improve health care, but it also has the potential to lead to forms of coercion or even to excluding people from social benefits. In implementing a kind of diagnosis or profiling (Horstman, De Vries and Haveman, 1999; Jochemsen, 1995: 291; Porto, 1990: 145) therefore, it is desirable also to understand its social-ethical implications in order to avoid possible adverse consequences.

A more pragmatic reason to study the impact of techno-scientific studies in rural communities is that the population's perception of them will influence their participation and compliance. To make the research a success, therefore, there should be a high level of acceptance by the community. It is thus important how such programmes are communicated and positioned. This

could be via the healthcare system (O'Connor, Stacey, Entwistle, Llewellyn-Thomas, Rovner, Holmes-Rovner, Tait, Tetroe, Fiset, Barry, and Jones, 2003) or in wellness programmes in industry, or through other parties in the private sector. Such community involvement in the decision making process on whether and how such research should be carried out is especially important in the case of HIV/AIDS. Individuals confronted with this condition may feel overwhelmed by the pain of rejection, guilt, an uncertain future and fear (Vernon and Jumper-Thurman, 2002: S96). Special attention should thus be given to communicating the aims of any research project involved to all individuals, especially as more than one encounter may be required for obtaining clinical material. Moreover, dissemination of information on a complex project, as envisaged here, is not always straightforward[7], and requires a well-defined process to ensure community readiness to participate in such projects. Here, 'readiness to participate' is not understood as the willingness of the community to accept the technology of the researchers, but as the state in which the community itself understands and accepts that the technology entails a possible benefit for its own condition.

Three models

How can an as yet uninformed community be approached with new possibilities for prevention and intervention aiming at improvement of the health of the community members? Here we propose three complementary models from the literature to indicate possible approaches to the social-ethical research that is required to define an ethically and culturally responsible way of doing so.

Behaviour model

The aim of such research in our view should be to gain a qualitative and quantitative insight into the way people in the community will likely react to the biomedical research and the information it produces. The metabolomics/genomics research we are discussing here refers to a new diagnostic technology, primarily to be applied to individuals, of which the aggregated outcomes could result in new healthcare strategies. So the issue we are addressing here is the extent of acceptance of the new technology by individuals in the target community. The acceptance of a new (or emerging) technology can be seen as an example of human behaviour on which models have been published. A helpful example has been used by the Health Council in the Netherlands to describe the acceptance of vaccination (see Model 1).[8] This model consists of the integration of the theory of planned behaviour (Ajzen, 1991: 79) and social cognitive theory (Bandura 1986). The main factors that explain behaviour are made explicit. In this model behaviour is preceded by the intention to show that specific behaviour. In its turn the intention to do so is determined by the three factors attitude, social influences and self efficacy. 'Attitude' in this context primarily pertains to the favourable or unfavourable disposition towards the specific behaviour under study, e.g. the willingness to make use of a certain technology, to consult a physician and so on. Self-efficacy means the expectation of the degree of effective control, of one's ability to handle

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7.   Trendanalyse Biotechnologie (2007) Gezamenlijke notitie van de Commissie Biotechnologie bij Dieren (CBD) de Commissie Genetische Modificatie (COGEM) en de Gezondheidsraad.

8.   Gezondheidsraad. *De toekomst van het Rijksvaccinatieprogramma: naar een programma voor alle leeftijden.* Advies van de gezondheidsraad. Den Haag, 2007: 44.

the new technology and knowledge. The step from intention to behaviour is modulated by skills to realise the intention as well as by barriers that may frustrate that intention. Quantitative research among a population allows the calculation of the relative success of the different factors in explaining behaviour. In this case the behaviour is the acceptance of the metabolomics/genomics technology to study the vulnerability to AIDS and possible intervention strategies.

Model 1
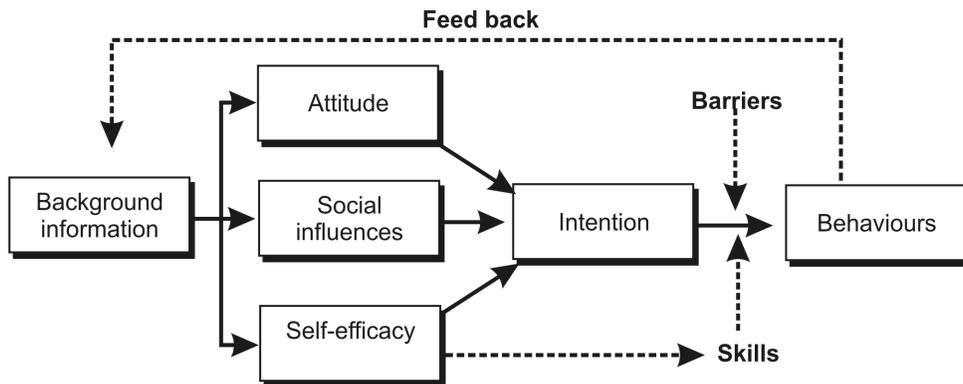
We suppose that the background information is roughly the same for different members of a particular community and can be described in a way that applies to the whole community. We therefore propose that ethical research among members of the target group should concentrate on the factors attitude, social influences, self-efficacy and on possible perceived barriers that could influence the use of these technologies. Although the social influences are expected to be largely the same for members of a particular community, their perception of those influences may differ significantly and so their behaviour may differ. We conclude that empirical research should be conducted to gather information on the four factors that affect behaviour according to the model in order to get insight into the relative explanatory power of each one of them on the behaviour under study.

We distinguish two different situations with respect to explaining the behaviour of members of the target communities. First, the situation in which people are confronted with the request to participate in genomics/metabolomics research either in a healthcare setting or a wellness setting in the private sector. The behaviour being studied is the decision to participate in the research. The second situation concerns the behaviour of people after having received information on health risks on the basis of the results of the biomedical research. How will this information affect their self-concept, their family relations and their position in the community? Quantitative social and ethical research in the community should distinguish these two situations and raise questions regarding both.

cultural model

In designing research on the basis of Model 1, it is important to realise that this model stems from the context of fully modernised 'developed' countries. In contrast, we are writing of the application of modern technologies in a rural community in a developing country in which the model parameters 'background information', 'attitude' and 'social influences' all harbour cultural influences. 'Background information' refers to, among others things, the specific ethnic and cultural and socioeconomic characteristics of the community under study. 'Attitude', as the predisposition to respond in a certain way to, in this case the offer of a certain technology, will be influenced by the way that technology is perceived and by the degree of trust of the institution and people that offer it. This in turn is influenced by predominant value orientations among the community and the way in which people function in social relations. This value orientation and its cultural background are not made explicit in Model 1. However for a correct understanding and hence for formulation of adequate questions in the quantitative research indicated above, it is desirable to acquire more insight into the cultural background. In other words, we advocate that in the implementation of Model 1 – that is, in the conceptualisation of the parameters just mentioned – the cultural context be taken into account. For this step we consider that Model 2 could be helpful. Model 2 comprises 'layers' of culture and human motivation as a background for human behaviour, developed elsewhere (Schoon and Grotenhuis, 2000: 17).

Model 2
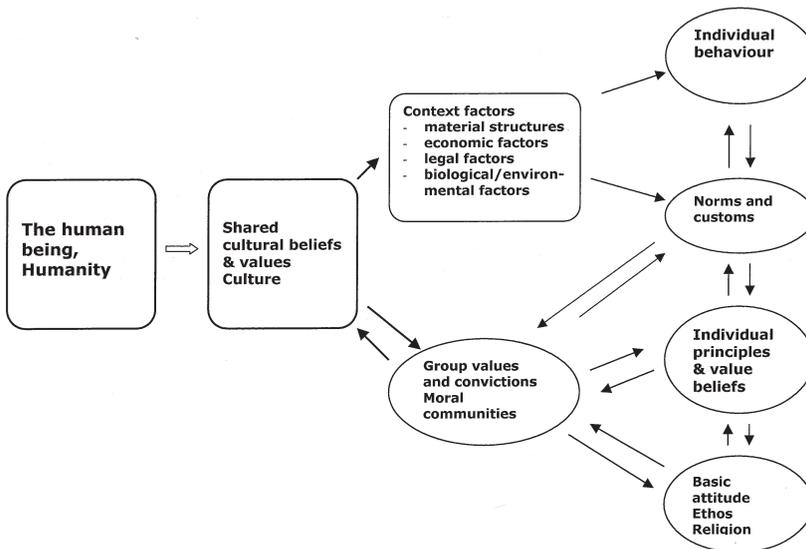
Model 2 indicates that behind human behaviour different motivational 'layers' can be distinguished. The attitude of a person to a new phenomenon springs from a number of theoretically distinguishable layers of beliefs regarding norms and values and regarding the basic character of reality and of the source of meaning.[9] Such beliefs and 'ultimate concerns' are never just an individual affair but are commonly shared in a culture and in communities with a common culture and morality. This insight is of special relevance in the context of research among South African populations, whose life is much influenced by their often different religious affiliations. In addition to some form of Christianity, which is predominant in South Africa, some Africans adhere to some kind of traditional tribal religion, which might include ancestor worship. Thus, Model 2 is intended to give a better understanding of the impact of the cultural context on the content of the relevant parameters of Model 1. This could be operationalised by conducting qualitative research on the perceptions and attitudes of members of the target communities regarding genetic predispositions to health risks, in particular vulnerability to AIDS. The results of such qualitative research can be used to formulate questions for the quantitative research that is a basis for calculating the relevant parameters of Model 1. This is important for both situations mentioned above in which Model 1 could be applied.

We have pointed out above that, to be successful, ethical medical research involving the questioning of substantial numbers of people needs first to be accepted by the test subjects. This condition can be achieved by invoking the Community Readiness Model.

Community Readiness Model

The Community Readiness Model was proposed on the basis of research among Native American communities (Vernon and Jumper-Thurman, 2002). The model consists of several stages in which successive steps assess the level of readiness of community members to participate in the kind of project discussed here (Model 3). It describes the process through which researchers or healthcare workers can approach these test subjects to facilitate a change needed to deal with a major community problem (Vernon and Jumper-Thurman, 2002: S96). The schematic representation of the model in the figure perhaps suggests a technology-driven approach that views the communication process as a chain of interactions. In practice the model stresses that in the implementation of an intervention strategy to deal with a community problem, those affected should be involved right from the start in a two-way communication process, beginning with the identification of the problem. Dissemination of information in complex projects among a disadvantaged community, as presented here, is not a simple straightforward process; it requires a well-defined and thought-out approach to ensure community readiness to participate in such projects on the basis of a sense of ownership.

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9   We understand religion here in a functional anthropological sense; the manifestation of the relation to what is considered ultimate reality (see Webster's New International Dictionary and Clouser R.A. (2005) *The Myth of Religious Neutrality*. University of Notre Dame Press).

Model 3

Process of community readiness
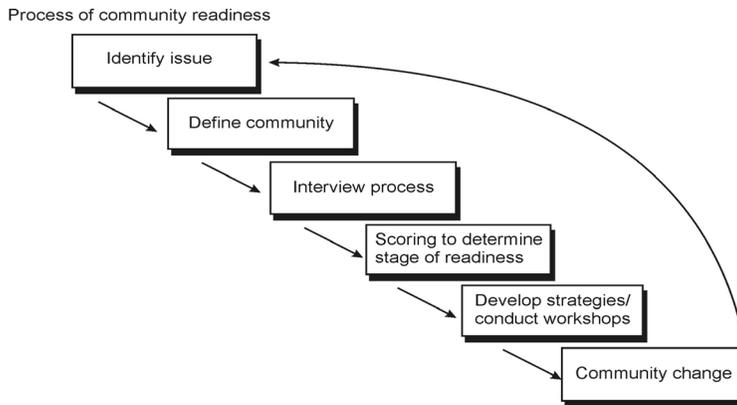
This model assumes that, in any intervention, the individual or group involved must be aware of the problem and ready for change. This implies that the first aspect to be addressed in the investigation is the definition of 'community', which may range from adolescents to a subgroup such as labourers, a neighbourhood, or even an organisation. Within this community an assessment could then be made of the awareness of the issue to be investigated, for instance the importance of unfamiliar diagnostic methods (such as genomics/metabolomics) that may produce new and ethically and socially sensitive information, but may also lead to new health interventions (step 1 in Model 3).

Before involving a target community as a whole in a process of communication readiness, it is desirable to carry out qualitative research of the same kind as is required to prepare the quantitative research designed around Model 1 (see above). Qualitative social-ethical research on the perceptions, attitudes and social factors regarding genomic and metabolomic research among the community would provide insights necessary to carry out the subsequent quantitative research and to involve the community members as dedicated participants in that research and, in a sense, owners of the process. Such qualitative preparatory research aims at finding answers to questions on health in general[10] and on genetics and a specified disease in particular.[11]

Research design and anticipated outcomes

We have indicated in this chapter that the implementation of new biomedical technologies, such as genomics and metabolomics, in the diagnosis and treatment of for instance people living with HIV may well have undesirable effects on the individuals involved and their community. That is why we have also proposed that any implementation of such

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10. Typical questions on health in general:
    - Where do you first go for consultation on a health problem?
    - How do you feel about the use of surgical needles as part of a health consultation?
    - How do you feel about blood, and donating a blood sample for clinical purposes?

11. Typical questions on health and genetics are:
    - Do you know anything about genetic diseases?
    - Do you have a genetic disease in your family?
    - Would you be interested to know about a possible genetic disease in your family?

technologies be preceded by social-ethical research to ascertain the conditions under which the technologies could be implemented, if at all, in a responsible way. We have proposed three models that could be helpful in designing such research. What would be the main course of this research and what would be the role of each of the three models outlined above?

Research design

a. The first step would be qualitative research, possibly in the form of semi-structured open interviews with different types of individuals from the target communities. The research participants will be members of the communities ranging from HIV-negative and -positive individuals to opinion leaders, for example, as well as representative caregivers knowledgeable in the field of congenital risks and AIDS. The aim is to obtain a qualitative insight into the perceptions and attitudes in the target community on the envisaged biomedical research and on the possible social and health consequences of the findings.

b. The items to be included in these interviews, and the phrasing of the questions as well as the interpretation of the results, have to be informed by Model 2 in order to ensure that the cultural context is taken into account.

c. The results of this qualitative research can be used in the two following steps.

> First, to design and phrase the questionnaire for the quantitative research that will be aimed at assessing the explanatory power of each of the behaviour-determining parameters of Model 1, notably 'background information', 'attitude', 'social factors' and 'self-efficacy'. This research should aim at elucidating the anticipated behaviour in two related but different situations; initially, whether or not to participate in the biomedical research if requested to do so. In this case the factor 'intention' should also be examined. And second, the response to receiving the results of the research in the form of information on genetic predispositions for a particular disease such as HIV/AIDS, and on possible interventions or lifestyle consequences. The questionnaire should therefore anticipate both outcomes. This research may use existing questionnaires that may have to be adapted to the circumstances or may have to be drawn up anew. The analysis of the results will require advanced statistical methods.

The second way, in which the results of the qualitative research can be used, is in the involvement of the target community in the decision making process regarding participation in the qualitative research outlined in the previous paragraph. This information should be used to prepare the community as described in Model 3.

d. The quantitative social-ethical research can or cannot proceed, depending on the results of interventions aimed at community readiness. If carried out successfully, these interventions will provide important information and insight into the factors and motives that determine the choices of community members with respect to intended biomedical research among them. These results will make it possible to determine whether such research could be carried out successfully and ethically and, if so, define the conditions to achieve this. This will again require the involvement of the participants to achieve community readiness. If the community declares itself ready for it, the biomedical research can be carried out.

e. During the time of the research, and when results are becoming available and disclosed to the participants (all in accordance with established protocols and regulations), it is desirable to monitor the effects of that research and subsequent interventions on attitudes and perceptions of AIDS patients and HIV-positive individuals by their communities. This can be done by a series of interviews with patients, caregivers and other support staff, and of opinion leaders in their communities. These data need to be tested for statistical significance.

Anticipated outcomes

Successful social-ethical research, as indicated above, should achieve the following outcomes:

- It will meet a pressing need for understanding the views of participating communities on complicated health issues, their diagnosis and treatment. The latter is of growing significance in the present technological era.

- It will give insight into social and ethical conditions for the justifiable implementation of new technologies that are intended to treat vulnerability to diseases

- It may open up avenues to align elements of the latest techno-scientific approaches to health care with that of indigenous knowledge systems and their cultural and religious roots. This may in turn enhance the effectiveness of attempts to reach target populations to treat HIV/AIDS.

Ultimately, the results of this type of investigation will provide a sound basis for the complex techno-scientific part of a genomics/metabolomics project as described here. Furthermore, this research strongly relates to the increasing emphasis of funding bodies and institutions on the social and ethical accountability of complex research endeavours that may affect the health and well-being of individuals and communities.

Final note

We argued that the trajectory of social research investigating ethically responsible implementation of modern biomedical technologies in a context of a 'developing' country could well begin with a social scientific qualitative research project. Meanwhile we have carried out a pilot study of this kind by interviewing twelve opinion makers in a specific black community. Preliminary results indicate that a wide variety of images and motives play a role in the attitude of the people with respect to HIV/AIDS research. More traditional cultural and religious motives go alongside views that are derived from modern medical information. It could be noted that the concept of genetic diseases and predispositions is a sensitive issue, (still) significantly influenced by traditional views on the role of ancestors. Given the delicate balance between trust in modern medicine and/or in traditional healers, any attempt to involve the people in a research project as indicated in this paper will have to seriously consider the way in which the (intended) participants will be informed. Model 3 can play a significant role here.

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Adapting to Local Ethical Standards: A Case of a Global Company

Darek M. Haftor

Introduction

This text presents a case of how a sales organisation, an affiliate of a large global company, adapts its key operations to ethical standards present in the local environment rather than these being imposed from elsewhere. This case addresses the challenge of 'increasing globalisation', namely the so-called 'global-local tension', particularly with regard to the supra-legal normativity structures (i.e. ethical, aesthetical and credal) that typically differ between the local and the global contexts.

Besides presenting the way a globally operating company successfully adapts to local ethical conditions, this case also shows how this accommodation contributes to the achievement of its business success. This gives rise to the two key messages: business success may go hand-in-hand with accommodation to ethical standards; cultural globalisation, by means of technological transfer from one society to another, may be handled positively by adapting to the local conditions rather than just transforming them.

Theoretically considered it is not self-evident in which terms globalisation, and its dynamics, should be understood. Tomlinson (2007: 149) clearly argues that globalisation as a phenomenon challenges the conventional conceptions of social sciences. This is supported by John Urry (2003: 3) and Ulrich Beck (2002: 24), where the latter states:

> Normal social science categories are living becoming zombie categories, empty terms in the Kantian meaning. Zombie categories are living dead categories, which blind the social sciences to the rapidly changing realities inside the nation-state containers and outside as well.

To this call for theoretical development, the present investigation assumes a novel approach to the conceptual elaboration of globalisation: this is the so-called Cosmonomic approach

as put forward by the late Dutch philosopher Herman Dooyeweerd (1894-1977), particularly in his monumental *New Critique of Theoretical Thought* (Dooyeweerd, 1955). His framework enables a modal and structural analysis producing a rationale for why the mentioned alignment between the ethical and economic norms may be congruent and positive. The analysis also shows the interplay of various social structures, including commercial, professional, and private structures as part of a household. This conceptual approach is the third message of the study presented here.

This text is organised as follows. The next section briefly introduces two central dilemmas of globalisation, as an orientation point. The subsequent analysis of the case presented here attempts to provide a tentative solution to these dilemmas. The discussion of globalisation is followed by a short characterisation of two kinds of technology that are both subjects of the presented case study. The following section presents a summary of the case as such, including its selected characteristics, while the section after that presents an analysis of this case, as directed by the mentioned Cosmonomic conceptual framework. This paper ends with a summary and conclusion, including suggestions for further theoretical elaborations.

Challenges of globalisation and technology

In this section, the scene or context of the present contribution is presented. Firstly by a short articulation of two central dilemmas of globalisation, and thereafter by distinguishing two kinds of technology that are subject to globalisation as such and also the case presented below.

To adopt or not – a dilemma

The term 'globalisation' has not escaped any cultural and political debate; paradoxically though, it seems to have subjected itself to the fate it denotes in that it has received global attention. This in turn has made the term globalisation somewhat problematic; a quick review of available literature (e.g. Scholte 2000; Lechner and Boli, 2008) shows numerous connotations of a cognitive – political, economic, social and cultural, technological and ecological – and emotional nature: typically the leftist and green versus the rightist and the capitalist; examples of the former's rhetoric include: 'Western cultural imperialism' or even 'Americanisation', with the global spread of American cultural products and forms such as McDonalds, Coke and jeans as obvious examples.

Given this state of affairs, we would like to articulate the present elaboration, which addresses 'cultural globalisation'. This is of course challenging as the term culture may easily include all the other notions mentioned. In short, however, culture is here understood to mean patterns of human activities and the symbols that give these activities significance. Culture is therefore what people eat, how they dress, the beliefs they hold, cars they buy and drive, books they read, films they watch, and all the various activities they practice. 'Cultural globalisation' occurs then when particular cultures, of particular societies, are subject to external influences and adopt them, and then typically immediately start to transform them; i.e. Europeans eat McDonalds food in a different way to Americans and they practice Buddhism in a different way to Asians.

A dilemma of cultural globalisation will occur when a particular culture is put into a situation when it either is subjected to an unsolicited external influence, or when a culture is put in

a position where it may refuse to adopt an outside influence – e.g. it is not as easy to find McDonald's restaurants in Italy as it is in Sweden – yet, by refusing, a culture may be worse off compared to the state it was before facing the decision: to adopt or not; an example could be political and economic isolation as a consequence of refusing to adopt. This leads to 'global-local tension' where a particular local society wishes to preserve its cultural heritage and identity while this preservation becomes in practice impossible, as both the choice to adopt an outside influence as well as the choice not to do so, put that cultural system into an undesired transformational mode initiated by actors and processes outside of it.

A dilemma of the multi-national corporation

Given this adoption dilemma, the mechanism that probably has the greatest responsibility for the globalisation process is the multi-national organisation, and particularly multi-national corporations. These are enterprises that carry out their operations, e.g. production, development, marketing and sales of goods and services, in many, often in more than a hundred, countries. In his highly celebrated and discussed book *When Corporations Rule the World* (Korten, 1995), David Korten puts forward the anti-globalisation thesis in an examination of the evolution of corporations in the United States and argues that corporate libertarians have twisted the ideas of free market economist Adam Smith and the founding fathers' view of the role of private companies. Korten criticises consumerism, market deregulation, free trade, privatisation and what he sees as the global consolidation of corporate power. Above all he rejects any focus on money as the purpose of economic life. His prescriptions include excluding corporations from political participation, increased state and global control of international corporations and finance, rendering financial speculation unprofitable and creating local economies that rely on local resources, rather than international trade.

On the other hand, Doug Henwood (1996) observed that Korten

> … offers a vision of 'a market economy composed primarily, though not exclusively, of family enterprises, small-scale co-ops, worker-owned firms, and neighbourhood and municipal corporations.' Much of this is desirable. But it would be impossible to run a complex economy on this scale only; it's easy to imagine furniture being made this way, but not trains, computers and pharmaceuticals.

As it is presented by Korten and his critics, we seem to be facing a second dilemma: If we wish to take control over the process of globalisation, Korten's prescription is basically to manage without multi-national corporations. This would, however, lead to a situation where the products and services necessary to at least some of the current cultures and societies, e.g. pharmaceuticals or green energy production systems, could not be advanced and provided. The empirical dilemma posed here is thus: Must this be a binary choice only? Should we either accept multi-national corporations that produce not only the wanted products and services but also an uncontrolled process of globalisation, or should we do away with the multi-nationals and thus stop the unwanted globalisation process while at the same time suffering from being without the goods and services we need?

In the face of this empirical dilemma, the case presented here attempts a third way forward between the two contrasting positions: namely a process of global transfer with local adaptations and an attempt at critical self-reflection.

Two kinds of technology

The case presented here addresses a particular kind of cultural globalisation, namely the transfer of technology. Before detailing the specifics of this case, though, we need to make a key distinction inherent in the term: 'technology'. This term may denote two rather different phenomena, labelled here by the expressions 'narrow technology' and 'broad technology', respectively as put forward in Strijbos and Basden (2006: 6 & Ch. 6).

We may recall that the term technology as such is etymologically derived from the Greek *techne*, for craft, and *logia*, for 'saying' (today the 'logic of'), together providing us with *technologia* or the 'logic of craft'. Technology may be contrasted to, for instance, knowledge, in Greek *episteme*, where the latter characterises or describes our world as it is while *techne* is the craft that intervenes into our world. In this way, we may regard technology as man's knowledge, skills and usage of tools and crafts to affect the world s/he lives in.

The mentioned distinction between the narrow and the broad notions of technology comes from the fact that narrow technology is used to describe material artefacts of use – such as a hammer, a medicine, a computer – while broad technology refers to systems of methods, procedures, organisations and techniques (e.g. Franklin, 1999). For example, in the case of a carpenter, technology refers both to the hammer itself and to the procedure of using it in order to achieve some predefined aim of intervention in the world, e.g. to hang a painting on the wall.

Now, as we are about to see, the case presented here addresses both kinds of technology, where narrow technology is represented by a desired transfer (adoption) of artefacts called pharmaceuticals, while broad technology is represented by the local adaptation of working practices and its executing organisation – this configuration of adaptation of narrow technology and adaptation of broad technology is specific for the particular case presented here, and may very well assume a different configuration in other particular cases.

A case of globalisation with local adaptation

This section presents a case of how a sales organisation, being a local affiliate of a large global company, adapts its market operations to the ethical standards present in the local cultural environment rather than imposing working practices form elsewhere. As the focused organisation is a pharmaceutical company the account starts off detailing some key characteristics of the pharmaceutical industry as such, which are relevant for the case here. Thereafter, some characteristics of the set-up of the local affiliate organisation are introduced. This is then followed by an account of the business challenge faced by the organisation and its chosen strategy to handle it positively: to simultaneously secure business success and adapt to the local ethical standards.

Key characteristics of the pharmaceutical industry

The organisation focused here operated within the Nordic region as an affiliate of a major global, USA-based, pharmaceutical company. Some key characteristics of the pharmaceutical industry[1] are selectively presented here, assuming their significance for the present case.

The pharmaceutical industry as such represents the structure, function and conditions of all pharmaceutical companies taken together as a whole, in terms of their operations and business. The key generic mission of the industry, and therefore of its constituting companies, is to provide society with pharmaceutical compounds, or ethical drugs, that, in some manner, heal and alleviate human suffering and defer death.

The operations of pharmaceutical companies are governed by economic conditions, legally imposed, as is the case for all companies. However, the pharmaceutical industry with its companies is one of the most regulated industries in the world with thousands of specific regulations governing aspects of all parts of a company value chain, from research and development, via production and distribution, to marketing, sales and after-market services. The reason for this heavy regulation is obvious: to protect the eventual consumers of drugs; failure to comply with the regulations may result in enormous financial penalties.[2]

This industry invests major resources in the hazardous process of research and development of new compounds and is then protected by patents for exclusive sales opportunities to recover their prior investments. This is then complemented by the post-patent opportunities that concern generic companies when producing copies of the original drugs and selling them at a price significantly lower then the original products. All this is heavily regulated not only by the conventional business laws that govern all companies, but also by specific pharmaceutical regulations. From an economic point of view, one could argue that the extreme research, development and operational costs of pharmaceutical companies – as induced by risky research and development of new drugs and also by the heavy regulations that generate additional operational costs and high penalty costs – give rise to an operational and economic imperative for the very existence of a sustainable, multi-national pharmaceutical company with global operations: it is not possible to innovate lifesaving compounds and to bring them in a safe manner to the needing patients around the world, without being a multi-national company. This was the context of the pharmaceutical company to be presented in the next section.

Norphama: The set-up of the Nordic sales affiliate

The unit of interest here is a marketing and sales organisation, operating within the Nordic region[3], and an affiliate of a major, global pharmaceutical company. This pharmaceutical

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1. The notion of 'Industry' is assumed from Porter (1979) (see also McGahan and Porter (1997)). The notion of an 'Industry' as such is problematic in several senses. However this debate is outside the scope of the present investigation, which merely adopts the concept as an organiser of the present discussion.

2. As an example of this, on September 2, 2009, *The Washington Times* announced that Pfizer Inc., the world's largest drug maker, will pay a record $2,3 billion civil and criminal penalty for unlawful prescription drug promotions; Reference see *The Washington Times* (2009).

3. Nordic region refers here to Denmark, Sweden, Norway, Finland, and Iceland.

company[4] was among the top fifteen largest pharmaceutical companies. The Head Office was located in the USA and its various operations were spread all over the world.

In the present case the Nordic affiliate, hereafter Norpharma, assumed the globally imposed mission for the company, which included the aspiration to "bring to the world pharmaceutical and healthcare products to improve lives". Norpharma's key operations were to market and sell drugs developed and produced by the parent company elsewhere in the world. This was done by the marketing teams and sales representatives who provided product and treatment information, primarily to physicians and also on a much smaller scale to the county authorities and the patients.

Beside these core operations, Norpharma also had several supporting functions specific to pharmaceutical companies, such as the Regulatory function and the Medical Advisory function, where the latter was responsible for providing product and therapy-related information to the various stakeholders such as employees, national authorities, physicians and patients. The Regulatory function was responsible both for handling product registrations and for compliance handling of the numerous regulations that were legally imposed upon operations as for any pharmaceutical company present within the Nordic region. Norpharma, like most other companies, also had conventional supporting functions such as Finance, Human Resources, Logistics, and Information Technology.

Norpharma, as were many other pharmaceutical companies operating in each of the Nordic countries, was a member of a National Association of Pharmaceutical Companies (APC) in each respective country; these associations are non-profit organisations, aiming to handle the interests of pharmaceutical companies collectively. In this function, each APC monitors ongoing national discussions and activities that address the various aspects of the operations of pharmaceutical companies and, where and when needed, responses to these discussions. A way to pursue such a response, relevant for this case, is the issue of an industry-specific code of behaviour, which is a set of normative guidelines for the professional behaviour of member companies in the association. An example of such normative guidelines presented in Sweden concerned the mode of contacts and interactions between sales representatives from a pharmaceutical company on the one hand, and physicians in the healthcare organisation on the other hand. One particular guideline stated that it was forbidden for sales representatives to invite an individual physician to a lunch with the intention of discussing the companies' products; a lunch where three or more physicians were present with the sales representative was however acceptable.

Norphama's business challenges

At the time of the last Millennium-shift the senior management of Norpharma received updated long-term business objectives from Headquarters. A central component of these objectives was the imposed aspiration to double the annual revenue, from approximately one and a half billion Swedish Crowns (approx. 150 million Euro) to three billion (approx. 300 million Euro), within the subsequent five-year time frame. This long-term revenue growth was perceived by the senior management of Norpharma as offensive and challenging, and

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4.   The identity of the company investigated here must not be disclosed; however this identity is not relevant for the present investigation.

prompted them to issue a strategic analysis aiming to propose alternative strategies for securing the achievement of business success.

A central item of the conducted strategic analysis was an examination of the key stakeholders, which included current and future employees, the physicians that prescribe the company's drugs, the patients that consume these drugs, the authorities that pay for the drugs and the public that perceives and interprets the company and its actions. The strategic analysis determined that a key success factor for business success was securing the satisfaction of the physicians. This in turn issued a specific investigation into exactly what the targeted physicians wanted from Norpharma, and is presented in Figure 1. The obtained results initially surprised the senior management, as they showed that what physicians' mostly expected from the pharmaceutical companies was an ethically adequate behaviour. More specifically, the two most wanted characteristics were (a) that the physicians' could feel confidence in the research results and reports provided by the pharmaceutical companies and (b) that the companies show proof of good ethics and sound values. These results were interpreted in the following context.

In the time up to the Millennium-shift, there was a general distrust geared by physicians and authorities toward the pharmaceutical industry as a result of a number of unethical and criminal incidents. This distrust was also present in the Nordic region. Examples of such incidents include active marketing of drugs toward consumers, i.e. patients, an activity which was prohibited in Europe; pharmaceutical companies offering bribes to key opinion leading physicians for promoting a particular drug brand in favour of other competing brands; and delivery of false or modified results from clinical studies to show that a particular drug had better effects than it actually gave rise to.

Norphama's response to the challenge

Given this context, the senior management of Norpharma eventually understood that it was not so very strange that the physicians sought ethical behaviour. The strategic decision for the management team was then formulated as follows: should the company allocate resources to develop its operations so that Norpharma would be perceived as an ethical pharmaceutical company, or should the resources instead be allocated to aim for more aggressive marketing and sales operations? – All this in order to achieve the set business objectives. The strategic decision made was to focus on the first-mentioned option, and the vision of Norpharma was modified to include the statement, "To be the most trusted pharmaceutical company in the Nordic region". The strategic reasoning behind this can be summarised in the following terms: If successful business requires excellent relations with the physicians, and if the physicians ask for an ethical mindset, and if all pharmaceutical companies are generally distrusted, then there is a strategic opportunity to provide the customers with something that none of the competitors provides for them and which the customers most of all want. Consequently, the strategic hypothesis assumed was: In order to reach the defined business objectives, resources should be allocated for the development of ethically sound relations with the physicians rather than to do as the competitors do, i.e. to allocate resources for more aggressive marketing and sales activities.

This strategic decision for achieving the defined business objectives was then implemented in terms of a strategic development programme aiming to translate the defined vision

into concrete operational and tangible business operations. Many different organisational actions were deployed, of which the three below are representative examples.

One developmental effort was the establishment of a number of so-called Patient Disease Programmes aiming at facilitating the diagnostics and treatment of defined patient groups, e.g. asthma and depression. In this instance, Norpharma provided the local health centres in the country with various self-diagnostic tools and treatment training. The intention behind this type of initiative was that the financial resources traditionally allocated to various marketing and promotion activities were now being re-allocated to initiatives to help both patients and physicians in their core concern, namely diagnostics and treatment.

A second example of the developmental efforts pursued toward the set vision was the establishment of a transparent clinical trial process. The clinical studies were conducted in such a manner that their design, execution and final analysis and reporting were open for any inquiries and their steering board included physicians who could influence and monitor the design, execution and finalisation of these studies. The intention here was both to include the medical profession in the development of medical evidence that was any way aimed at their work, and to acquire the important clinical competence possessed by the physicians.

Figure 1: Illustrates results obtained from a questionnaire given to one of the key stakeholders of Norpharma: the physicians that prescribe its pharmaceutical products to the patients.
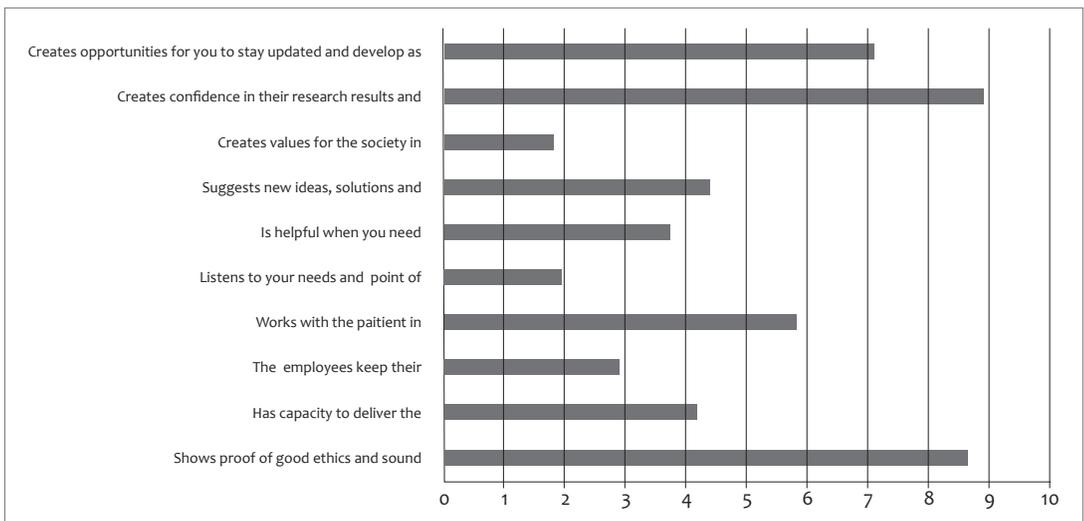
In this inquiry, the question posed was: "In your opinion, what is the most important offering from a pharmaceutical company?" The scale was set from 0 to 100, where the latter signified 'most desirable' while the former signified 'not desired at all'. The most desirable characteristics are presented in the chart above, and showed that the two most desired deliverables that the physicians wanted from a pharmaceutical company were: (a) confidence in the research results and reports provided by Norpharma and that (b) Norpharma show proof of good ethics and sound values.

A third example is the change of product information provided from traditional push-mode into a pull-mode. The first-mentioned implied that a significant amount of medical information and promotion material was provided to the physicians (by mail, e-mail, phone calls and personal visits), independently of whether they had requested it or not. The pull-mode, on the other hand, implied that the physicians were able to choose the type of medical information they wanted, when and in what form, which in turn steered the supply of this information from Norpharma to the physicians. The aims behind this were many, including not frustrating physicians with unwanted massive information mail shots, ensuring that the particular type of medical information that a particular physician needed was actually supplied and not anything else and so on.

Norpharma's results generated

In order to assess the effects and results of the strategic initiatives pursued, a number of measurement procedures were established. One such comprised the traditional economic metrics of sales, costs and results. Another, more operational, was the measurement of all conducted customer-interactions, in terms of their frequency and quality, the latter being assessed by the customers themselves. A third metric was a so-called Vision-Monitor-System that aimed to measure the targeted customers' perception of Norpharma versus its defined vision. Figure 2 illustrates the results generated by Norpharma over the five-year period.

Figure 2: Illustrates the results from bi-annual measurements of the effects resulting from the strategic initiatives of Norpharma; the objectives were to both double its revenues and to become "the most trusted pharmaceutical company in its region", all this over a time period of five years. Norpharma was successful in achieving its defined objectives.
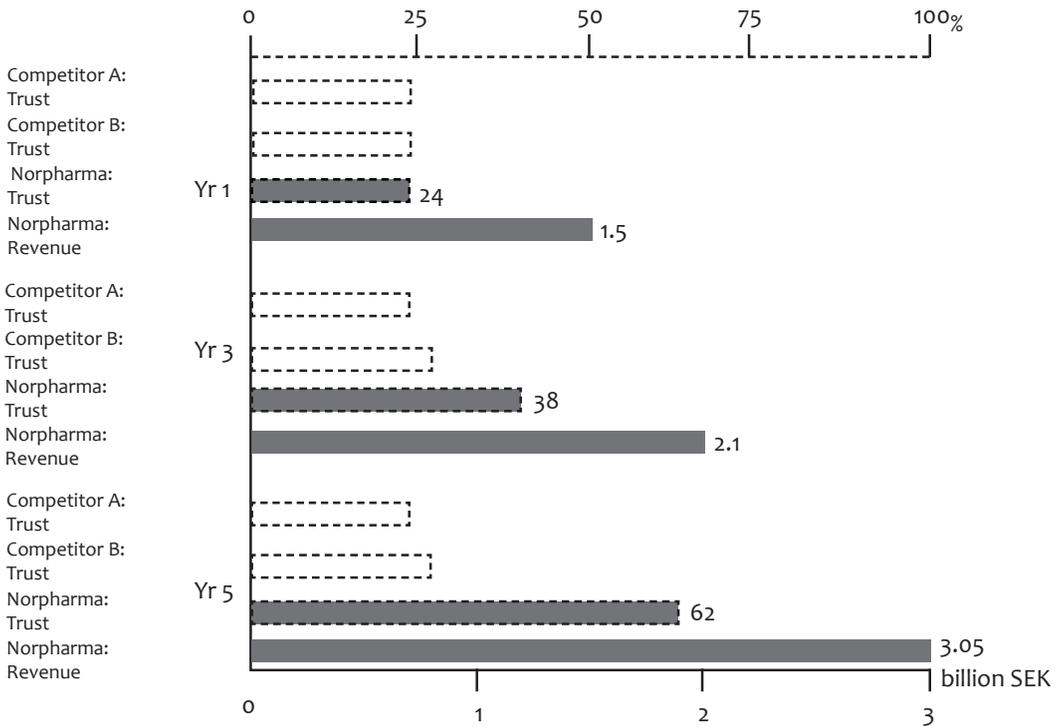
In this, year one shows that Norpharma enjoyed a similar 'trust-perception' as to its two key competitors, approximately 25%, while the revenues were one and a half billion Swedish Crowns. Given all the developmental initiatives deployed by Norpharma to bring the company towards its set vision and business objectives, year three implied an increase of the 'trust-perception' towards nearly 40% while the competitors mainly remained at their previous position; at the same time the revenue of Norpharma increased to two billion. Finally, year five showed that the 'trust-perception' increased to circa 60%, where the competitors did not move much from their original positions, while Norpharma's revenue passed the targeted three billion Swedish Crowns.

Analysis of the case

The Norpharma case, manifesting simultaneous satisfaction of ethical and economic aspirations, is investigated here in a search for the sources of its normativity. The overall aim is to identify an underlying pattern that could be hypothesised to create a generic status. Such a normativity pattern could therefore be assumed by other organisations in

their aspirations to reach a positive coexistence between economic and ethical norms in their globally spread operations.

The following section opens with a short account of the analytical approach assumed here, followed by the investigation itself and ending with a summary and derivation of conclusions.

The Cosmonomic approach

In order to identify the underlying pattern of norms, in the case presented here, a particular approach of investigation has been assumed. This is the conceptual apparatus provided by the Cosmonomic theory as developed by Herman Dooyeweerd (1955). The unique character and intention of this Cosmonomic theoretical approach has been discussed elsewhere (Kalsbeek, 1975; Choi 2000; Clouser, 2005), as is the case of its various limitations (Nash, 1962; Choi, 2000; McIntire, 1983: 41-80; Klapwijk, 1987). The chief motive for its assumption in the present investigation is its explicit ability to facilitate a normative investigation, i.e. an investigation of a variety of norms present in a particular situation.

The present investigation utilises a set of selected key concepts of its so-called theory of structures and theory of modalities (Dooyeweerd, 1955). The selection was made in terms of the understood value of each concept for the present investigation. As this is not the right place to present these two conceptual constructions, brief and selected characteristics only will be detailed here. A first, central, proposition assumed here is that our world manifests a variety of 'entities' – e.g. a chair, a bird, a friendship – where an entity is a meaningful structure for its observer; whether it is a physical or conceptual object, activity, or relation between the two (Dooyeweerd, 1955: II). Thus, physical entities may be interrelated, such as a mother and her child, where this relation is an entity in itself.

A second proposition assumed here is that we humans experience our reality and thus its entities as functioning in a set of modalities or aspects. Each modality is a distinct type of property with unique norms. Dooyeweerd (1955: II) proposed a set of fifteen modalities, or types of characteristics and their norms, which are ordered in a particular manner, yet he acknowledged his proposal does not need to be the definitive one and that additional modality may be identified. The proposed modalities are: quantitative, spatial, kinematic, physical, biotic, psychic, analytic, historical, lingual, social, economic, aesthetic, juridical, ethical and pistic. It is important to notice that each modality represents a kind of norms, not a specific instance of norms; for example the ethical modality may be realised by deontological norms, Christian norms, utilitarian norms and other norms.

A third central proposal assumed here is that each entity, while necessarily functioning in all fifteen modalities, is qualified or receives its meaning in the properties of one or a few only particular modalities, hence the norms of such a modality dominate the governance of such an entity; for example, a hospital seems to have biotic modality as one of its leading aspects when people are healed while a second dominating modality is the ethical one, where a man helps another man in the light of compassion and self-giving.

This conceptual apparatus will now be employed to investigate the normativity governing Norpharma in the case presented above.

Pattern identification

This investigation of the Norpharma situation presents its entities, their interrelations and their governing norms. Starting with the entities, the following are focused here: the societies, the pharmaceutical companies, the pharmaceutical companies' association, the patients, the physicians – there are of course other entities involved here, such as the pharmaceutical drugs, the various physician professional associations, patients' relatives; however these are not regarded as central for this investigation.

Societies

Societies, understood here synonymously as countries, are regarded here as the encompassing entities. These are the Nordic countries – Denmark, Norway, Sweden and Finland – and the USA. The meaning of these entities emerges from and is dominated by juridical properties and norms; hence legal modality is its qualifying function. As mentioned above, each entity necessarily functions in one way or another in all modalities, thus the societies identified here function in economic, social, historical, ethical, credal and other modalities, necessarily, with their specific constellations of norms.

Pharmaceutical Companies

A second central entity identified here is the pharmaceutical companies. These may be perceived as a subset of a company as such, and where Norpharma may be regarded as an instance of the class of the two previously mentioned. All commercial companies are governed by economic norms; debit and credit, revenues, costs, profits, etc. Hence, the economic modality may be regarded as the qualifying one in the case of Norpharma; however, the legal aspect is central to all companies being juridical entities, and as Coase (1937) established; the distinct and founding characteristic of any company is the legal contract it makes with another actor be it a customer, a supplier or an employee. Further, as Norpharma provides its customers with pharmaceutical products aimed at healing and helping people in need, we can also assume that ethical norms were central for its operations – for instance, when compared to an automotive company where ethical norms are typically not as central.

Now, the structural challenge that emerged was that Norpharma, as a company present in the Nordic society, was also a subsidiary of its Head Offices located in the USA. This legally enforced subsidiary-relation meant that all key business and financial decisions within Norpharma were made and approved by the officers in the US; this in turn implied that the norms at play at the Headquarters (ethical, social, economic, legal, etc.) were governing decisions and directing operations in the Nordic subsidiary operations. This may imply that the norms at play locally in the Nordic region, may be conflicted and overrun by the norms for the region where the Headquarters is placed, the USA – this is so unless the imposed norms do not conflict with the legal norms present locally, here in the Nordic region, for example terms of employment; see illustration in Figure 1.

This relation is sometimes labelled as the Dilemma of Globalisation or the 'McDonalds' culture imposition', where one dominating society introduces its norms, whether consciously or not, to another society, where the latter' is thus dominated in their inter-societal relationship. To

be sure, the position assumed here is that this 'norm-introducing relation' does not need to be negative per default; it may or may not be so. Rather, the central point is to consciously and critically reflect upon such relations and their consequences.

Pharmaceutical Companies Associations

The next key entity was the Pharmaceutical Companies' Associations in each Nordic society. One such association in each country was responsible for monitoring and influencing issues related to the interests of pharmaceutical companies collectively, in each society. These trade associations were similar in their constitution and function in each of the Nordic countries, and most of, yet not all, pharmaceutical companies present in each society actively and freely decided to become members of these associations. These associations formulated and stipulated industry rules to be observed by all member companies. An example of one such norm issued was the policy on how sales representatives from pharmaceutical companies should and should not interact with physicians. One particular reservation was that a sales representative must not interact professionally with a physician alone; there either must be two or more sales representatives or two or more physicians. The reason for this policy was to prevent unethical relationship building and bridges between two such professional agents. As it is understood, the meaning of Pharmaceutical Companies Associations comes from the formative quality they introduce when forming the local pharmaceutical industries. These associations had no legal power in enforcing the policies formulated, as any of the member companies could easily cancel its membership if they disliked the policies introduced. Also, when a particular company's operations violated a given industry norm, the association could issue a symbolic economic penalty or ultimately expel such a company from the association; yet these associations had no other powers.

The understanding here is that the significance of Pharmaceutical Companies Association can be best perceived as formative, hence the historical modality is its qualifying function. This is so as the key mission of these associations was to regulate, condition, or 'form', the structure and functioning of pharmaceutical companies, so that one or more such companies would not be able to perform by themselves; otherwise there would be no room or need for such associations. This historical aspect must have been clearly accompanied by the social and the ethical norms, which laid the foundation for the formulation of norms of behaviour for the pharmaceutical industry.

Patients

The next two central entities in the Norpharma situation are the physicians and the patients. Patients are the citizens of a local society who need some kind of medical help. In that context, patients enter into a social intercourse with physicians where the latter make a diagnosis and a prognosis, and then prescribe treatment. In most European countries including the Nordic societies, and unlike in the USA, healthcare costs are covered by healthcare insurance provided by the state. In this sense, the understanding here is that patients are dominated by two types of modal norms: the biotic and the ethical. The medical needs of a patient make the biotic norms central, as some kind of biotic disorder motivates a patient's need of medical help. The ethical norms are also central for patients who need to be cared for by someone else. However, patients are also dominated by legal and economic

norms in their relation with their society; this is so as the latter grants its citizens healthcare insurance as described here.

Physicians

We will now move our attention to the physicians. These are the professionals in the Nordic societies with a mission to help their patients. Therefore, the leading modalities or norms that characterise the meaning of physicians are biotic, ethical, legal, and economic; as with the patients. Yet, another central norm seems to be the historical one as it characterises the formative norms of the profession and its development, e.g. the experience generating the way in which patients are diagnosed and treated. Taken together, the patients and their physicians establish a particular relation with each other, which is dominated by biotic, social, lingual and ethical norms. In any intercourse between a patient and a physician, their interaction is dominated by social and lingual norms, however ethical norms seem to give rise to interactions such as the fact as a patient typically trusts the physician and frequently puts his/her life in that person's hands. A patient trusts that the physician's main interest is the well-being of his/her patients and that the best available methods, equipments and drugs are utilised for such well-being, without any significant compromise toward other ends.

The entity network

Given the above-identified entities present in the Norpharma situation along with their dominating norms, the next step here is to identify the normative relations between these entities. The relations are already partly visible and the task here is now to articulate them clearly (see Figure 1 for an illustration of these relations).

Starting with the Norpharma company present in the Nordic societies, this was normatively closely interrelated with the local societies, where the latter provided legal, social, economic, lingual, ethical and other contexts and limitations for Norpharma's local operations; these relations and their norms were necessarily imposed upon Norpharma. Secondly, Norpharma had a close relationship with the Pharmaceutical Companies Association where the formative norms were dominant, accompanied by the social and ethical norms. Clearly, Norpharma's normative relation with its local societies must have been aligned and conforming with the normative relation with the Pharmaceutical Companies Association, as these were also conditioned by the social, legal and ethical norms present in these Nordic societies.

The next key relation for Norpharma was the relation with physicians who prescribed Norpharma's products to the patients. This relation was central for Norpharma as it very much conditioned the prescription volume of these products and thereby its business performance. As suggested above, the relation between the two entities was multidimensional, conditioned by biotic, lingual, social, historical, economic and ethical norms. The ambition and goals of Norpharma were to ensure that physicians preferred Norpharma's products to other competing products with similar effects. In this context, Norpharma's selected strategy toward that end was to become the most trusted pharmaceutical company in the Nordic region and thereby put forward the significance of the ethical norms in the relation between the two entities. This strategy implied that, unlike the then conventional norms of the industry, massive and offensive marketing and sales activities were replaced by activities aimed to build positive and close relationships

between the Norpharma and the physicians, built on trust. In this sense, Norpharma's senior managers decided to break with the conventional norms of the industry and developed new types of behaviour guided by the requests of the physicians – this new behaviour was not confirmative with the industry norms, but was confirmative with the physicians' needs.

A final central relationship highlighted here is that between the Norpharma Company and its parent company, the Headquarters in the USA, where the former acted as a subsidiary owned and governed by the parent company. In this relation, the latter operated in another market and society, i.e. USA, which had its local norms; historical, social, lingual, economic, legal, ethical, etc. This implied that the decisions made at the Headquarters were, at least partly, influenced and governed by the norms present in the USA. Some of these decisions were made to govern the activities of Norpharma in the Nordic region. In this sense there emerged a partial conflict or misalignment between the norms present in the Nordic societies and those in the USA.

One example of such misalignment was the instance of a particular product, provided by the company for women experiencing the side effects of menopause, which was promoted in the USA with a preventive utilisation approach, i.e. that all women in a certain age group were recommended to consume this drug on the chance that the side effects might occur. In the Nordic region, on the other hand, the medical tradition assumed a reactive approach, i.e. only those women actually experiencing side effects caused by menopause were prescribed these drugs. In this case, the promotional and sales material and guidelines provided by the Head Offices to the officers in Norpharma, assumed a proactive drug-utilisation and sales approach which violated the medical norms held by the medical profession in the Nordic societies. These transduced norms, from the USA to the Nordic region, caused the physicians' perception of the promotional approach to be unethical, and thus conflicting with Norpharma's aspired vision. In this case, the senior managers of Norpharma decided not to utilise the promotional approach given by the Headquarters. Figure 3 illustrates the identified entities and their normative relations accounted for here.[5]

The findings

It is now time to reflect upon the findings arising from the investigation presented above. This is done in terms of the findings related to the content of this investigation, then the findings related to the procedure used for this investigation, and also in relation to some self-critical reflections.

Learnings from the content

Starting with the findings of the content of the Norpharma situation, probably the most interesting was its ability to investigate its key stakeholders, the physicians, and align its ethical orientation toward these physicians. This ethical harmonisation showed at least two things. Firstly, that ethical and economic norms do not necessarily need to confront

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5.   The Norpharma situation has other entity relations than those discussed here – e.g. patients-society, patients-Norpharma, patients-physicians and Norpharma-pharmaceutical companies. – these are however not regarded here as central for the comprehension of the situation being investigated here.

each other, rather the opposite: they may enforce each other. Secondly, that the process of interaction with reality opens up the inherent normativity in this reality; this follows what Strijbos (2000) called a 'disclosive process', after the Dooyeweerdian understanding of man and his place in, and relation to, reality. The disclosive approach articulates and attempts to remedy man's limits in understanding and comprehending the complexity of reality only by means of cognitive or intellectual processes; rather it shows that practical reasoning and experience are necessary if man is to advance the understanding and comprehension of its reality.

Figure 3: Illustrates the key entities articulated here and their normative relations, including the conflict identified between the local norms present in the Nordic region and in the USA (where the Headquarters, was located) respectively.
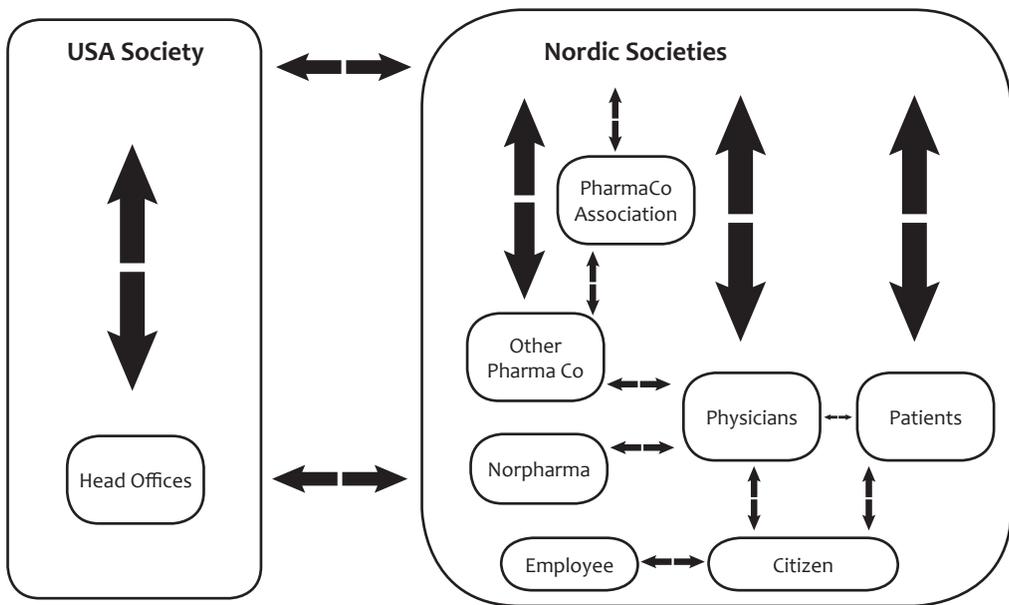
In this situation, Norpharma aligned its ethical norms with the physicians it served and thereby achieved moral conformity; however this implied a break with the ethical and formative (professional) norms given by its Headquarters and also those manifested by its peer companies: the other competing pharmaceutical companies.

A second key insight from the decisions made by the Norpharma senior management was its preference for intrinsic normativity versus the externally imposed normativity. This was manifested by its adoption of norms of its key customers: the physicians, as well as the adoption of norms given by the Pharmaceutical Companies Association – both types of norms were freely adopted by Norpharma. This is to be contrasted with the norms that were imposed onto the Norpharma, such as the societal norms given by the Headquarters. In the latter cases, the norms were partially conditioned by another cultural system: the society of USA. In the case of Norpharma, the senior managers had the ability and vision to omit some of these from other society-transduced norms, in favour of adopting the local ethical standards. From this, one can draw the hypothesis here that intrinsically adopted

norms, in contrast to those externally imposed; provide a motivation with a positive relation to the fulfilment of an organisation's objectives.

Thirdly, and by derivation from the points just mentioned, the case presented here shows an approach for how to positively manage the so common global-local tension in our globalised world. For more than five decades, multi-national organisations have emerged and challenged conventions of local societies. These multi-national organisations generate consequences that are regarded as both positive and negative. One such negative consequence is the imperialistic nature of a multi-national organisation: that norms and standards from elsewhere are imposed on a local society, independently of whether the latter wants to have it or not. The present case, on the other hand, shows an example of how such challenges may be managed in a positive manner for all those involved.

All this suggests that the dilemmas of globalisation, as presented at the beginning of this text, may have a third way out: namely the adaptation of external influences with local adaptation made by the local cultures.

Learnings from the procedure

The above-presented identification of the underlying normative structure and its significance in the Norpharma situation, gave rise to the induction of a procedure for normative investigations. This procedure has the following five key activities:

■   Identification of the entities involved in the situation.

■   Identification of the central modalities, or types of norms, of each entity.

■   Identification of the key relations between the entities identified.

■   Identification of normative conformities and disconformities within the entity relations identified.

■   Derivation of the key message of functioning and malfunctioning from the pattern identified.

The proposal here is to further develop this procedure and to introduce it as a conceptual tool for normative analysis in policy formulations and managerial decision making.

Critical self-reflection

All investigations are bound to some limitations; the following shortcomings were identified in the present investigation.

The first question here refers to the content of the Norpharma situation: what would have happened if the adopted vision and strategy had failed? That is, if the imposed business objectives were not achieved, by means of the assumed customer-driven strategy and its vision to become the most trusted pharmaceutical company in the Nordic region? Even though the presented case appears very promising and persuasive, one cannot be absolutely sure, from one case only, that the key and only cause for success was the selected strategy where local conformity to ethical standards was adopted. Indeed, this opens a related

question; what validity or generalisation may be assigned to one case study only? Clearly, the findings presented here should not be taken as conclusive but rather as suggestive or indicative. Further investigations and research are needed to validate the propositions presented here.

The second question to be raised here is: did the senior managers' decision to adopt Norpharma's operations according to the local ethical standards imply an instrumental use of ethics? That is, was this adoption made as a means of achieving economic objectives? This seems to have been the case. However, in the present case, where the economic modality or norms are leading or meaningful for a company, maybe we should accept that a company's primary objectives are to generate economic well-being, provided that this is be done in a manner that does not violate ethical and other related norms.

Conclusion

This chapter addressed a general challenge of cultural globalisation, particularly as driven by multi-national corporations operating all over the globe, and transferring technology from one cultural context to another. A dilemma of a particular culture is whether to adopt or refuse an external influence, while whichever is chosen an unwanted transformational change may be initiated in the local societies – adoption of an external influence will initiate a change while refusal of such adoption may put the particular culture into a situation where it will be worse off compared to where it was before facing such a choice – the case presented here assumed a third option: to adopt the pharmaceutical technology from other cultural context and to adapt the distribution technology to the local cultural context.

The second dilemma addressed is that of multi-cultural corporations that may very well be regarded as the key drivers of the globalisation process. The empirical question is: should we accept multi-national corporations that produce both the wanted products and services and also an uncontrolled process of globalisation? Or, should we do away with the multi-nationals and thus stop the unwanted globalisation process while at the same time suffering from a lack of the goods and services we want so much? Again, the case presented here seems to assume a third option, where the multi-nationals can provide the wanted products while simultaneously adapting their operations to the local conditions, where ethical and economic aspirations and norms may be both respected and satisfied.

Finally, the study attempted to respond to the call for a novel conceptual apparatus as a means for conceiving the globalisation phenomenon. This is achieved by the utilisation of some of the key concepts from Herman Dooyeweerd's Cosmonomic philosophy, particularly in terms of its theory of structures and theory of modalities.

The study presented here is explorative in that it provides some novel and interesting suggestions. However, no other conclusions may be drawn that further elaborations in this direction may be fruitful, which is our aspiration henceforth.

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7

Security in a Global Society: Towards an Alliance between Defence and Development

Christine van Burken[1]

Introduction

The shock brought to the world on 11 September 2001 has influenced the world and its inhabitants in an unthinkable way and the keyword in the discussions and political behaviour thereafter was 'security'. In a globally interconnected world, suddenly, the threat came not only from outside, but also from within the global network. Although boundaries between societies and cultures seem to be fading away in our technologically focussed world, humans still need cultural and religious reference points. These cultural reference points provide a kind of security in a rapidly changing world. When these are being threatened by other members of the global network, the results are devastating, as we have seen in September 2001 (9/11). Catalysed by the socio-economical inequality between the North and the South, anti-western terrorists used self-sacrifice tactics, but also modern IT and other technologies developed in Western countries to defend and promote their ideology.

How should the rich countries answer to these reactionary threats from within? The standard answer, to seek security by expanding the military-industrial complex, fails because it is not taking into account that insurgents nowadays operate out of a global optic from the outset, taking the globe as home base. The focus of this chapter is therefore to rethink military practice and how this human practice can contribute to development in a globalising world. First I will critically examine the current debate on security in a globalising world that is dominated by social constructivism. This sets the background for a normative analysis of the military practice and a discussion on possible alliances with development practice.

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The security debate

'Wide' versus 'narrow' view on security

The current debate on how to acquire a kind of global security can be related to two of the 'Four Freedoms' proclaimed by US President Franklin D. Roosevelt to the Congress in 1941[2], namely the 'freedom from want' and the 'freedom from fear'. These freedoms were quoted in 1945 by US Secretary of State Edward R. Stettinius, when he and the founders of the United Nations articulated that national security is connected to global social conditions:

> The battle of peace has to be fought on two fronts. The first front is the security front, where victory spells freedom from fear. The second is the economic and social front, where victory means freedom from want. Only victory on both fronts can assure the world of an enduring peace.

Now, more than sixty years later, security concerns dominate the international agenda. In an age of globalisation, the threats posed by violent conflict in an interdependent world do not stop at national borders, despite heavy attempts to defend them.

The two front lines in the battle for global peace and collective security are surely still present. However, in recent years there is a renewed debate regarding how these two fronts of a military and socio-economical battle, defence and development, are connected. Some aim on redirecting world military spending to human development (Cawthra 1998), which is an approach that puts the 'freedom from want' issue to the forefront in the security debate and it ultimately leads to the perspective that only socio-economic development can contribute to global security. Another perspective is to put 'freedom from fear' to the forefront in the security discussions. This is a more traditionalist view, in which military action is the defining key to security and the state is the focal point and link to military conflict. Indeed some traditionalists move away from the state-centred view on security, acknowledging that people and nations, as well as states and alliances, can be strategic users of force in the international system (Chipman, 1992: 129).

After the Cold War a more diversified agenda was adopted, including economical, societal and environmental security issues alongside military and political ones. The traditionalists have criticised this widening of the agenda, and although there are certainly more aspects to security, one of their most powerful arguments against widening the agenda is that, often unthinkingly, it tends to elevate 'security' into a universal good thing – the desired condition toward all relations should move.[3] Wæver (1995: 46-86) has argued that this narrow view can be dangerous and he describes security at best as a kind of stabilisation of conflictual or threatening relations, often through emergency mobilisation of the state.

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2. For a full report of the speech, see http://www.fdrlibrary.marist.edu/od4frees.html: Freedom of speech. Freedom of worship. Freedom from want. Freedom from fear. Our Documents: Franklin Roosevelt's Annual Address to Congress – The 'Four Freedoms' January 6, 1941.

3. That security is not always perceived as a universal good thing becomes already present in Ancient Greek history. Thucydides' *History of the Peloponnesian War* tells the story of the island Melos, a Spartan colony that valued freedom above security. The magistrates of Melos refused to surrender to the Athenian generals who in their own view offered them protection. Upon the refusal to subject to Athens, the Athenians laid siege to their city (see Walzer, 1977: 10).

A leading scholar in the security debate, Barry Buzan, describes the 'old' military and state-centred view, and the 'new' view that questions the primacy of the military and the state in relation to security (Buzan, Wæver and De Wilde, 1998). Central to him and others in the Copenhagen School of Security Studies[4] is how we should conceptualise threats that arise in military and non-military areas. They propose that security must be studied as a discourse in which certain issues become security issues ('securitised') and others should no longer be seen as security issues ('de-securitised'). Buzan *et al.* (1998: 23-4) propose a constructivist method for security analysis in which security is understood not as the content of a particular sector (military), but as a particular type of politics, which is defined by reference to existential threats:

> 'Security' is the move that takes politics beyond the established rules of game and frames the issue either as a special kind of politics or above politics. Securitisation can thus be seen as a more extreme version of politisation. In theory, any public issue can be located on the spectrum ranging from nonpoliticised (…) through politicised (…) to securitised (meaning the issue is presented as an existential threat requiring emergency measures and justifying actions outside the bounds of political procedure).

The wide versus narrow distinction underlies a multisectorial approach to the study of security: the military sector, the environmental sector, the economic sector, the societal sector and the political sector. These sectors have their own specific pattern of interaction in the process of 'securitising'. Existential threats in the political and military sectors are usually defined in terms of the state, or its constituting principle (sovereignty). But in the societal sector security is about a kind of sustainability of traditional patterns of language, culture, association, and religious and national identity and custom (Wæver, Buzan, Kelstrup, and Lemaitre, 1993: 23). Security of states is no longer the only focus, but it is also about "communities of whatever kind define a development or potentiality as a threat to their survival as a community" (Buzan *et al.,* 1998: 119).

The socio-constructivist approach of Buzan and the Copenhagen School has certainly some value for rethinking security in a globalising age. It not only widens the security agenda, but also highlights that the distinction between the domestic state territory and the international sphere is not always vitally important if we want to understand security issues. This framework of the Copenhagen School makes it possible that the referent object for security is re-articulated to focus on other actors and values than the state and its sovereignty. The concepts of securitisation and de-securitisation allow for other views than state-centric solutions. However, this framework is unable to give rise to a possible change in normative standards for conflict resolution and the strengthening of legally binding agreements. Also, it is not investigated whether it is possible to maintain security by use of a global or regional legal order, rather than by security policies being the instrument with which the interest of the most powerful is protected. The underlying central assumption is that security is a social construction. But in an age of blurred boundaries we need an analysis that can also capture the existence and binding character of rules, norms and principles. In

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4. The Copenhagen School of Security Studies has its origin in Buzan's book *People States and Fear: An Agenda for International Security Studies in the Post-Cold War Era (1991)*. Theorists associated with the school include Buzan, Waever and Wilde who published *Security: A New Framework for Analyses (1998)* as their primary book.

this chapter I argue that these are intrinsically present in the social structures, even before people enter the social structure and give shape to it. Although one can argue that today, at least the North, faces less of a direct threat to military security than any time in its history, still I argue for the need of a military force. Underlying this claim lays my assumption that we live in a broken world in which evil, hunger, natural disasters and injustice are pervasive elements. However, evil and injustice cannot be merely tolerated, but beg for measures to prevent its spread and limit its deteriorating effect on human flourishing. By acknowledging that fully solving these issues ultimately lies beyond human capabilities, I point out that any attempt for restoration should be done in a humble spirit. Nicholas Wolterstorff (1983: 142-3) amongst others has pointed out that this is not an easy task.

> In that circumstance, what should the victims (and those who side with the victims) do? Should they confine themselves to talk in the hope that somewhere they will find a listening ear? Or should they engage in active resistance and opposition? And under what circumstances, if any, is civil disobedience morally permissible as a component in such active resistance? Further, under what circumstances, if any, is resorting to violence legitimate as such a component?

In different words, people need a situation of order and stability in which they may control their own life and project their own future (Van der Stoep, 2006: 111).

The need for the use of force in an organised manner is also empirically supported by the World Bank Survey called 'Voices of the Poor', which highlights that the number one priority for the poor was security, even above other needs such as food and shelter (e.g. Narayan-Parker and Patel 2000). At the same time we should be aware that human rights, environmental degradation, political stability and democracy, social issues, cultural and religious identity and immigration are issues that have become more important for conflict prevention. I agree with Buzan *et al.* (1998: 4) who argues that

> Our solution comes down on the side of the wideners in terms of keeping the security agenda open to many different types of threats. We argue against the view that the core of security studies is war and force...

To this extent social constructivist theorists are right, but unfortunately, they do not give an account of how the military practice can still contribute beyond the traditional 'war and force'-security.

The changing meaning of security in a global age

Buzan *et al.* (1998) have given a social constructivist account of security. Before I continue to put some more critical remarks to this social constructivist approach, I will examine the changes in society in general in the last decade that has influenced the security debate. I will argue that something new is at stake, and in this paragraph I will explain what precisely is new in the discussion.

The traditional model to describe the relations between 'freedom from want' and 'freedom from fear' and security as it has evolved after World War II was strict and focussed on separate socio-political spheres. Two main political concerns during this period were how to secure 'freedom from want' on a national level and how to secure 'freedom from fear'

to maintain external security. The Netherlands and also more Western countries developed into a welfare state with a social care system to secure 'freedom from want' on a national level, whereas a military force to secure territorial boundaries mainly focussed on defence against external threats during the Cold War. Secondary concerns were the threats to internal security, which were safeguarded by the police who kept internal order. Of minor threat was 'freedom from want' in the extra-territorial sense and 'development' was merely thought of in terms of charity with a focus on economical development of poor countries. The boundaries between the political realms were strict. Police, Defence, Development and Social Care System were strictly separate in a differentiated society.

But today, in an age of globalisation, something has changed in the relationship between the political realms. Due to information and network technologies, in combination with immigration policies, no definition of external territorial boundaries can be given and also the boundaries between the four realms have become permeable (see Table 1, in which the dotted lines represent the permeability of the boundary between various socio-political spheres in society).

Table 1: Political model of a globalising age

	Internal security	External security
Freedom from want	*Welfare state*	*Development*
Freedom from fear	*Police/Judiciary*	*Military (Intervention)*

What is new in the discussion is that the threats to security are no longer from the outside. Actually, there is no 'outside', because territories have become permeable. Consequently, the four realms have also become part of a global network. The 'Development-Military' distinction has become blurred as well. Development found its way outside traditional non-governmental organisations (NGOs) and has lately become more crucial in military doctrines; think of CIMIC – activities (Civil-Military) in current military missions. Another example is the Provincial Reconstruction Teams (PRTs) in Afghanistan, led by international civil and military partners under ISAF (International Security Assistance Force). Also the police and the military have adopted a new paradigm in which the separation in use of force for internal and external safety has become less strict (Neuteboom and Ducheine, 2007: 119).

This observation of the blurring of boundaries is confirmed in literature by several authors. For example Buzan (1991) and Booth (1991) widen the concept of security by embracing social, economic and political issues. Also Goudzwaard, more indirectly mentions the interconnectedness, which implies both cultural and religious issues. He argues that the dominant power of those within the global network caused a threat to those outside the network, as they felt under-valued in their own cultural and religious dignity. Their attacks on the Western world were an expression of their anger of being felt imperialised (Goudzwaard, Van der Vennen and Van Heemst, 2007). Therefore the 'freedom from want' and 'freedom from fear' concepts got a new meaning. Internal 'freedom from fear' is now strongly related to securing external 'freedom from want': if the North does not contribute to relieving the poverty of the South, the North will, internally, suffer the South's dissatisfaction. This does not mean that addressing poverty through broad-

based economic development automatically guarantees the prevention of conflict. But in the past, economical development was pursued in its own end, as a good in itself and as a vital precondition for human progress. Today, the opposite seems more likely to be the case. David Chandler (2007: 362) for example, states that governments and international institutions have become increasingly aware of the need to integrate security and development programmes.

> The policy documents talk about the joining of practices and theories in these two (security and development) policy areas as a way of creating joined-up government or of facilitating multilateral intervention under new 'holistic', 'coherent' or 'comprehensive' approaches to non-Western states.

He recognises the blurring of the boundaries and he criticises the socio-constructivist approach because of a lack of decent framework in dealing with security issues (Chandler, 2007: 365).

> Rather than a framework of coherent intervention we are witnessing a framework of *ad hoc* intervention mixed with the limiting of expectations, more mediated political engagement, and the disavowal of external or international responsibilities.

This intermezzo of the blurring of the boundaries can be helpful in acknowledging that indeed the socio-constructivists have a point in their argument that social structures can change. What they had seen after the Cold War was that various spheres in society were operating separately from each other and also the security debate was only addressed from a one sided (military) perspective. They have succeeded in widening the security agenda, but at the same time failed to develop a coherent approach to security issues. Especially now that the threats to security are no longer from the outside, we need a new framework that allows for coherence and integration, but at the same time recognises differentiation in societal spheres. In the next paragraph I will argue that it is helpful to acknowledge intrinsic structural dimensions of different societal spheres. Taking this perspective into account allows for an alliance between the military security and development practices.

Rethinking military practice

When studying security issues in the context of globalisation, one should keep in mind that different socio-cultural entities have different values and traditions and they also approach security differently. This results in a variety of doctrines and strategies for security and it also leads to a different view on the use of military force. An example is the belief in the techno-scientific overweight of Western armies (fuelled by the guaranteed security demanded by the West) over against the irregular armies of warlords or ideologies of Islamite self-bombers who defend their faith by making use of guerrilla tactics. There is a division in the speed of technological innovation of the North over against seemingly powerless developing countries. In Western societies, the emergence of a professional army for the defence of national boundaries and development of doctrine took place in a mould of modernistic ideas as we find it in Hobbes and Locke. Also a distinction took place regarding keeping the order inside the national household and keeping the order with the surrounding nation states:

the police was given the mandate for keeping internal order while the army was given the authority to protect the territory from an external threat by means of force.

The use of force to maintain security in Western societies is taken outside the private sphere and delegated to a specific practice, which is the military practice. This notion of a practice needs some clarification. For my understanding of 'practice' I make use of a long definition given by MacIntyre (1983: 187):

> Any coherent and complex form of socially established cooperative human activity through which goods internal to that form of activity are realised in the course of trying to achieve those standards of excellence which are appropriate to, and partially definitive of, that form of activity, with the result that human powers achieve excellence, and human conceptions of the ends and goods involved, are systematically extended.

My understanding of this definition is that at least a practice is a form of socially established cultural activity, which entails that the practice existed before the individual enters the practice. A keyword is the notion of internal goods. Those goods can only be achieved through participation in that specific practice and such goods must have historically evolved standards of excellence internal to them. Virtues, according to MacIntyre, are those human capabilities that allow us to pursue practices and therefore aim for the goods internal to those practices. MacIntyre directly relates the notion of a practice to the human skills and virtues. I would like to show a different view on what MacIntyre calls internal goods of a practice, and use the term 'intrinsic normativity', or 'inner nature' of a practice, as it is presented by late philosopher Herman Dooyeweerd. Intrinsic normativity is about the structural conditions that are given beforehand, or the ties by which the practice is naturally bound. This goes beyond the socio-constructivist idea of a practice, which is merely a social construction and also differs from MacIntyre's concept of internal goods. Intrinsic normativity is not only about internal goods, or what is specific about a practice, but also about the guiding principles of a practice. Disclosure or opening up of the practice takes place by human actions, it is the formative cultural activity that takes into account the structural limits given in reality, and at the same time opens up new possibilities (see Strijbos, 2006).

If we examine the military practice, what is the inner nature of this specific practice? Or in MacIntyre's terms, what are the ends and goods of the military practice? According to Van Riessen (1963: 8), a philosopher of technology and student of Herman Dooyeweerd,

> … a military is someone who, in service of the government, exercises power of weapons in an organised manner to promote justice.

The military practice is the pre-given framework in which a military fulfils his/her task. It is the exercise of power of weapons in an organised manner to promote justice. Therefore, use of force functions as a means of keeping order. In this view, the state has this right to use force, but within the borders of the law (Zwart, 1994: 65). Ideally, the state is an internal monopolistic organisation of the power of the sword over a particular cultural area within territorial boundaries. According to Dooyeweerd there has never existed any state whose internal structure in the last instance was not based on organised armed power, at least claiming the ability to break any armed resistance on the part of private persons

or organisations within its territory. In Dooyeweerdian terms, armed power is the typical 'foundational function' of the state, but armed power can never be its 'qualifying function', for the state as a *res publica* is always in need of the subordination of its armed force to the civil government in order to guarantee stability of its public legal order which is characteristic of a state (Zwart, 1994: 63).

The term 'foundational function' says something regarding how the practice came into being, which is the historical aspect in case of the military practice. The concept 'qualifying function'

> ... is a modally defined concept that refers to the function that characterizes an entity, determines its inner structure, and makes us experience a specific identity in relation to this entity despite all the changes that may occur to it over the years. As such, it can be seen as the manager or foreman of the internal structure of a particular thing and is, therefore, sometimes also referred to as the guiding or leading function (Bergvall-Kåreborn, 2002: 313).

In case of the military practice, this qualifying function is the promotion of justice.

What are the implications of viewing the military practice as a practice that is qualified by the juridical aspect, which 'inner nature' is the promotion of justice? It means that the state is legitimised to use armed power and it is not the armed power as such which makes use of military force legal, for in that case the state would equal a terrorist organisation. Although today's world order is less shaped according to these strict boundaries of territorial nation-states and has become a global network without clear demarcations of power and authority, it is important to be aware of the juridical boundaries to which the use of force is subdued. Military interventions should be bound by law, and the mandate of an intervention should never transcend restoration of public legal order. In some places, the state's monopoly over the means of force is lost, and violence becomes a way of life with catastrophic consequences for civilians. Many of these situations occur in poor societies or countries, mostly where there is a single valuable natural element such as oil or diamonds. In such cases, the use of force is employed to protect a war economy, which is fuelled by the trade of natural treasures, and the military practice does not function according to its intrinsic normativity. In fact, the military practice ceases to exist without this intrinsic normativity. This can be true for poor as well as for well-established nations.

Alliance with development practice

What can be learned from a socio-constructivist approach is that whoever undertakes military interventions in a globally interconnected world requires an awareness of the interwovenness of various social spheres. However, we should not lose sight of the specific singularity of the military practice that what distinguishes it from other social spheres. This means that the mandate of an intervening force is not in terms of economic development or cultural transformation, but its aim should be the promotion of justice on a regional, national and supra-national scale. Actions performed by individual soldiers, states or other legal authorities that take into account the limits of their own task can contribute to the opening up of a global world order in which people may flourish. It also allows for an alliance with the practice of development, without necessarily blurring the boundaries between them.

In the socio-constructivist approach, security policies have become vague and unclear and the meaning of security has been hollowed out (Chandler, 2007: 379). It is ignored that the

military practice has a specific purpose and differs from other practices in its aim to restore justice. I argue that sometimes the power of the sword needs to be used in restoring order. However, this should never lead to a situation in which people are subjected to foreign forces and cannot develop a society in their own cultural way. One of the results of the constructivist free-floating concept of security is the difficulties that intervening states face today. There is the danger that every attempt to intervene in the restoration of order in a specific region will be interpreted as an arrogant step towards obtaining global leadership. The consequence is that observer states face accusation, whatever they do: if they don't intervene, their non-intervention becomes the source of their undoing; and if they decide to deploy military forces, their intervention becomes likewise the source of their undoing (Beck, 2005: 260). Also at the United Nations General Assembly in 1999 Secretary-General Kofi Annan (International Commission on Intervention and State Sovereignty 2001, VII) compelled the international community to try to find a new consensus on how to approach these issues. He posed the central question starkly and directly:

> … if humanitarian intervention is, indeed, an unacceptable assault on sovereignty, how should we respond to a Rwanda, to a Srebrenica – to gross and systematic violations of human rights that affect every precept of our common humanity?

In this supposed dilemma I would like to add to Kofi Annan's statement that should a country need to start a military intervention, it automatically compels itself to rebuild the society after the intervention (Annan 2004). Here again we can see the intertwinement of 'freedom from want' and 'freedom from fear' and I argue that an alliance between the military practice and the development practice should be made, rather than merely a blurring of boundaries between the two practices. Restoration after intervention to secure the two freedoms in a structural manner is only possible if we respect the inherent irreducible character of the military and the development practice. Taking into account the differentiation and uniqueness of the practices, opens up possibilities for alliances between them. They can then find ways of how to deal with a global world order with its fluid socio-cultural borders and how it can be ordered in a way that development can take place.

Up till now I have argued that the socio-constructivist approach to security points to a variety of cultural and social issues that need to be taken into account when addressing security issues. But I have also argued that the socio constructivist approach caused a lack of coherence and impotence in tackling security problems. Should we return to a narrow view on security then? I think this is not the answer, because a narrow view on development for example, which only focuses on economical development, might neglect the need for cultural development in a global world order. This can in turn catalyse a process of internal and external threats to 'freedom from want' as well as 'freedom from fear'. So neither broadening nor narrowing the security agenda is a solution to solve security issues in an age of globalisation. I have argued that acknowledging the intrinsic structures of various practices are a key to making fruitful alliances possible. I have not yet made explicit, however, what the intrinsic structure of a development practice is, but I see a connection point.

The intrinsic normativity of development practice can be found in the economical aspect. This implies that we should consider development as a practice that aims for 'freedom from want' for the people involved. The economical aspect should not be reduced to cutthroat capitalism or global economic egalitarianism, but guiding economical concepts are for example 'just

distribution of goods', and 'stewardship'. Of course there are also ethical, juridical and faith aspects to development work, but in the end it is about developing the economical aspect of social life so people can (re)gain autonomy and create their own lifestyles and political autonomy. Economical development can only be fruitful if there is a monopoly of power (which has a historical foundation) of a just state, which is qualified by the juridical aspect. 'Freedom from want' presupposes at least in a very basic manner 'freedom from fear' and they cannot be reduced to one another. Both the military practice and the development practice aim to contribute to a global world order in which justice is promoted. International missions can only be successful if we acknowledge that the military practice and the development practice have their own internal structures that are guided by different aspects of reality. Also, these guiding aspects or intrinsic normativity transcend cultural differences and make international alliances possible.

I will give a practical example of where an alliance between defence and development has been fruitfully made. During their ISAF mission in Afghanistan, the Dutch Armed Forces cooperated with a development worker from the United Nations Food and Agricultural Programme (UNFOA) by assisting him with the counting of crops in the Afghan provinces. The UNFOA worker having requested this support to assist him in counting the crops expected an escort of military personnel to facilitate him in this task. The officer who was in charge however, decided against being directly involved in the counting of crops, and instead provided the UNFOA with relevant aerial photographs. The ISAF force uses these photographs for the detection of Improvised Explosive Devices in certain areas and the UNFOA could also use them for the counting of crops in the region. No blurring of boundaries took place, because the military practice and the development practice performed their own task independently. The soldiers and the development worker understood their own roles and responsibilities and respected each other's position. The soldiers could use their technical resources to provide the development worker with relevant information, without directly becoming involved in the development worker's task.

Conclusion

In an age of globalisation, where territorial boundaries have become less distinctive, society as a whole has changed. After the 9/11 attacks the Western societies realised that the threats to security are no longer from the outside, but have entered inside the Western society. As a result the discussion on security became topical again. In this chapter I have argued that the two fronts in the battle of peace, namely the 'freedom from want' and the 'freedom from fear', do not take place separately from each other, but are interwoven and continuously reinforce one another. This interwovenness of development and military practice should not be considered merely an accidental blurring of boundaries, caused by a change in socio-political affairs. I understand the development-security nexus in terms of an alliance between two different practices. Such an alliance should respect the intrinsic norms and rules of these two practices, each dealing with security issues within its own structural framework of meaning. For the military practice this is the use of weapons within legal boundaries, to promote justice. For the development practice it is about unfolding the economical aspect of social life.

Social constructivism has become increasingly dominant in security studies literature, for it appears to capture the transiency of policymaking and the seemingly free-floating concept

of 'security' since the end of the Cold War. Buzan and other scholars in the Copenhagen School for Security Studies advocate this socio-constructivist approach to security issues. They seek to widen the security agenda from a narrow nation-state focus towards a view that takes into account social and economical issues. I agree with the socio-constructivist approach that these issues cannot be seen apart from the security debate, however

> ... the redefinition and broadening of the meanings of both security and development indicate that the 'nexus' has not necessarily got anything to do with events on the ground or developments in either cohering or developing theory and practice in this area (Chandler, 2007: 367).

The socio-constructivist approach has emptied the development and military practice from its traditional content, resulting in a lack of clarity without providing a coherent framework to solve practical security issues. Therefore I advocate re-thinking security issues in general and the military practice specifically, because the latter has its own intrinsic characteristics that differ from other practices. The military practice has its own norms and rules, just as the development practice has its own specific intrinsic characteristics and guiding principles.

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PART 2

Intercultural Development – Theoretical Reflections

The Problem of Development: The Decontextualisation of Technology in a Global World[1]

Sytse Strijbos

Two paradigms

In discussions of the social structure of world society, two views or paradigms stand out, namely, 'modernisation theory' and 'worldsystem theory'. Each sheds quite a different light on the relation between rich countries and poor countries and the problem of development (see Wolterstorff 1983: ch. 2). The modernisation paradigm portrays the world as a collection of a great number of societies, each at a different point of development. At the heart of this view is the notion that third-world countries are 'behind' the rich countries and that they can fight 'their' poverty through modernisation. In other words: (1) it is in principle possible for all countries to attain a high level of modernisation without a need for farreaching structural changes in the countries that are already developed; and (2) the reason for their lagging behind in modernisation must be sought within the developing countries themselves – in their lack, for example, of modern technology. While according to theorists of the modernisation paradigm the world is thus comprised of a number of different societies in various stages of development (exemplarily for modernisation theory is Toffler's (1980) conception of first-, second- and third-wave societies) 'worldsystem' theorists, in contrast, approach today's world as a single social system and seek the cause of inequality in relations within the world system.

Now, according to each of these two paradigms, what is the role of technology? To the modernisationists who attribute the lag in development to a lack, among other things, of modern technology, development aid should consist of programmes for 'technology transfer'. For example, one representative of this approach, De Sola Pool (1990), discusses the importance of communications technology for less-developed countries. His reflections

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indicate, however, that among those who take this approach significant differences of insight may exist concerning which development strategy should be adopted in connection with 'technology transfer' programmes. Crucial in this regard is the normative view they may hold of the role of communication in a society's development. Another point of disagreement concerns the type of technology ('intermediate versus high technology') best suited to developing countries.

It is not necessary to say more here regarding these points of disagreement. What matters is that in the modernisation paradigm, technology is always regarded as one factor alongside other factors that affect processes of development for better or for worse. Modernisationists proceed from a 'narrow' view of technology. In contrast, a worldsystem approach is based, as the continuation will make clear, on a 'broad' view of technology. Modern technology is not merely a more or less important factor within a society. Technology is now the force that constitutes modern society and forms the comprehensive framework for its further development.

> In each lived moment of our waking and sleeping, we are a technological civilisation (Grant, 1986: 11).

After the World War II the developed countries gave the undeveloped countries an enormous impulse (Truman's 'Big Push'). Critics of the modernising approach point out, however, that since then the situation has only gotten worse. The gap between poor and rich has increased. "We must confront the baffling conclusion", according to Goudzwaard and De Lange (1995: 17), "that in spite of increased economic expertise and the vast expansion of technologies available for fighting poverty, the main task is now larger than it was even ten years ago." To them this indicates that there is something fundamentally amiss with our economic and social order. And the conclusion seems inescapable "that modernisation theory is bankrupt." (Wolterstorff, 1983: 25)

Indeed, the lag in development of the poor countries cannot be satisfactorily explained without taking into account the relation with the developed countries in the world system. And we shall have to be open to the possibility that the development efforts of recent decades have failed largely because we have addressed the wrong problem. The real problem may very well lie not on the side of the underdeveloped countries but with ourselves, which is to say in a conception of development and in the developmental movement of a culture in which technology has been permitted to gain a dominant central position.

Technology and culture

To understand the central place of technology in our time, it is necessary to recognise the special character of modern technology and, further, to view the relation between technology and culture in a historical perspective. As to the distinctive character of modern technology, one can point to the connection between technology and science, which has been highly profitable to both. After a long start-up period that began, let us say, with Bacon's seventeenthcentury dream of a technological paradise, the previous century has witnessed an explosive development in which technology and science reinforce each other. The results of scientific research form the basis for new technological developments, and

the new technologies make new scientific research possible. Science has today become the leading production factor in our economy.

Yet with that, what is most important has still not been said. Through the link between technology and science, which was forged as science turned to practice, the character of each was transformed and a fundamentally new situation was created in our culture (see Jonas, 1982 and Gadamer, 1993). Modern science has acquired a technological focus and direction where the object is deliberate, knowing control of nature, and also of society. Modern scientific technology is no longer tied to the practical, accumulated knowledge of particular cultures. Scientific technology has been cut free from such backgrounds and henceforth depends on general and abstract-scientific knowledge. The link with science has given universality to technology, which was traditionally embedded in specific cultural situations. In this sense it can be said that technology has been decontextualised. The consequences of the decontextualisation of technology have been farreaching for the development of both technology and culture.

To clarify our presentday situation, many thinkers (Mumford, Ortega y Gasset, Ellul, Wiener, Bell, Boulding, Toffler and others) have worked out periodisations and typologies of society and culture related to the development of technology. Recently Neil Postman (1993: 22) added to these the typology of 'toolbearing cultures', 'technocracies', and 'technopolies'. He introduces this division in order to warn against the imperialism of modern technology and the rising technopoly, particularly in North American society. Until the eighteenth century there existed, according to Postman, only cultures of the first type. On his analysis, the first true technocracy emerged in the middle of the eighteenth century, in England at the time of the Industrial Revolution. For the Western world there was then no way back. Technocracy subsequently awaits its completion in a totalitarian technocracy or technopoly. While in a technocracy inherited ties with preindustrial society are not yet entirely severed and the traditional world picture continues to have some influence; in a technopoly technology has become alldetermining for the arrangement and development of the culture. In this sense Postman (1993: 71) can define technopoly as the society in which technology has attained absolute authority:

> Technopoly is a state of culture. It is also a state of mind. It consists in the deification of technology...

Now, how does technocracy differ from the earlier, traditional type of culture? The difference is given with the irreversible change in the relation between technology and culture. In traditional cultures, technology is susceptible of integration into the culture and its world picture. The medieval world with its scholastic theological tradition provides a clear example. Technology is assigned a place within the framework of meaning determined by theology and metaphysics:

> Theology, not technology, provided people with authorisation for what to do or think... Such a theology or metaphysics provided order and meaning to existence, making it always impossible for technics to subordinate people to its own needs (Postman, 1993: 26).

For a long time the primacy of theology and metaphysics hindered the unrestricted growth of technology. Later, all barriers to the transition to technocracy disappeared. Then the roles of technology and metaphysics were reversed. Technology became central to the spirit of the age, and all else had to make way for its development. Thus an entirely new situation arose in which technology, or rather, a technological world-view (see Strijbos, 1988), became the integrating and meaningdetermining framework of culture. This view challenges the world picture of traditional cultures (Postman, 1993: 48). For a technocracy that gains its orientation from a technological world-view, technology is indeed something more than merely another tool or means in man's hands. Technology acquires an almost religious function and as such exists in tension with tradition and religion. It is characteristic of a technocracy, so Postman (1993: 28) observes, that

> ... tools are not integrated into the culture; they attack the culture. They bid to become the culture. As a consequence, tradition, social mores, myth, politics, ritual, and religion, have to fight for their lives.

The new relation between technology and culture that took form in Europe in the eighteenth century has turned out to be of world historical importance. For when technology is no longer embedded as an element within culture and is no longer an intrinsic part of it, then this means, as a consequence, that the way lies open for uncontrolled growth and expansion of technology. Freed from ties to specific cultures and their traditions, technology henceforth obeys exclusively the laws of its own dynamic development. Thus technology in its modern form confronts us, as Ellul was one of the first to see, with an entirely new phenomenon. For Ellul (1964: 63) this has gone so far that he regards modern technology as a reality of its own with its own laws of development. An example worth mentioning is technological universalism. (Ellul, 1980: ch. 7) Technology permeates the whole of life, leaving no sector unaffected. In its turn, technological civilisation spreads over the entire world, regardless of differences of race, culture, and so forth. The third-world countries are simply powerless in the face of the global invasion of technology, which in fact has now taken place.

The cultural historian Arnold Toynbee explains in much the same way as Ellul the remarkable fact that in world history, in the encounter with other cultures, Western technological culture has always gained the upper hand. He observes that it is less difficult for a culture to accept a strange technology than a strange religion. Thus when Western civilisation presented itself as primarily an alien technology, it gained easier acceptance in traditional cultures. And when in the exchange between cultures a splinter is broken off from one culture and introduced into an environment alien to it, this free splinter tends to bear with it, into the new cultural context in which it becomes nestled, all the other basic elements of the societal system from which it separated.

> The broken pattern tends to reconstitute itself in a foreign environment into which one of its components has found its way (Toynbee, 1953: 75).

Thus the introduction of a certain part of modern technological culture brings the entire way of life of that culture along with it.

Gandhi is one of the rare cultural leaders to have perceived that this is so. He understood that if Hindus went on wearing clothes made with Western machines, the entire technological

world would at last be transplanted to India from the West in an irreversible process (Toynbee, 1953: 80; 1966: 234). First, spinning machines and mechanised looms were imported from England. A process soon got under way that saw people leaving their cotton fields to find work in the new factories. Finally, the original Hindu society was completely hollowed out and its remnants were incorporated into the pattern of the technological culture.

What happened in India has now also happened throughout practically the entire world. Everywhere, one finds the same style of life. It is the way of life of the technological industrial culture, which has become universal and that binds and organises world society with its diversity of cultures and traditions into a single world system.

The problem of development

What precisely is meant by "the problem of development"? What problem are we talking about? How and in what sense can development form a problem for a society and culture? And what is the basis for the distinction between developing and developed countries? These questions seem so trivial – for one thinks immediately of the smarting contrasts between rich and poor in the world, of the shortages in ever so many countries of food, housing, health care and much more – that one can easily fail to notice that what is today called the problem of development is unprecedented in world history. In that respect the problem of development is strikingly similar to the problem of the environment. Both are typically problems of our time.

Naturally, there have always been differences between societies. Each society however had its own culture, and thereby its own standards for development and was as such not comparable with any other culture. This means, to provide an example, that there was also no real inequality between the Far East and the West in the sixteenth century. Not only were contacts first established in that century, when Portuguese seafarers turned up as intruders along the coasts of China and Japan; more importantly, the two worlds differed so greatly that it is impossible to compare them and senseless to speak of their leading or lagging behind each other in development. There is simply no common measure. Differences remain unproblematic as long as societies and cultures live side by side and develop independently of each other. Only when a particular society and culture seeks expansion and hegemony does a problem arise.

From this it follows, when we come down to the present situation, that today's problem of development does not have its cause in the differences in culture and tradition that still exist in our global society. Talk of a problem of development becomes meaningful against the background of a seemingly effortless and unstoppable expansion of a worldembracing technological society and culture. Just as much as in the case of the problem of the environment, we shall have to learn to understand the problem of development as a problem of the technological society. The characteristics of this form of life can be recognised in various distinct aspects of the problem of development. I want to discuss two of these here:

1) A first important aspect of the problem of development is that the problem is not identifiable with the solutions to various local problems. Naturally, these exist and must be dealt with. Yet the question is, 'How?' Local problems must be approached in the context of a view of the architecture of the entire world system. For from a global perspective, the

matter is not one of separate local problems. Therein lies the truth, I believe of the familiar adage: "Act locally, but think globally." In the past, before the worldwide diffusion of the technological society, there were local solutions for local problems (see Ellul, 1980: 186). Today that is no longer the case. In a process of technological and economic integration of the entire world, a diversity of societies, traditions and cultures have been brought together. There is no longer any place on earth that is not dependent in its development on other regions of the world. While in the past relations between the various parts of the world were often incidental in character and the links between them relatively 'loose', technology has formed a worldembracing unity in which each part is dependent on every other part. An extremely cohesive world system arose with countless interdependencies between the countries and societies that form it.

2) A second striking aspect of the problem of development has to do with the fact that the world system is marked not only by great cohesion but also at the same time, remarkably enough, by great differences and contradictions. The technological global system integrates in a certain fashion but does not guarantee peace and harmony. Unification into a single world system goes hand in hand, so it appears, with the appearance of fault lines, inequalities and contests of power. Within the single world system a structure emerges that consists of a core and a periphery, with buffer zone in between that can be called the semiperiphery. Referring to the economist Wallerstein, a prominent world-system theorist, Wolterstorff (1983: 31) observes:

> Today the core of the system is heavily engaged in capitalintensive, hightechnology, highwage production, whereas the periphery is dominantly engaged in labourintensive, lowtechnology and lowwage production.

This tripartite division of core, periphery and semiperiphery reflects the power relations in the world system. And in a society in which technology occupies a dominant position, it is no accident that the power relations are linked to the distribution and availability of technology. Ellul (1980: 189) reminds us that technology is never anything but a means of wielding power. And as soon as technology forms the foundation of human society, it also unavoidably appears as a seedbed of power conflicts and competition. The dynamics of development of the technological society manifest movement in two directions. At first glance these seem contradictory, but in fact they go together. On the one hand, the invasion of technology generates a process of homogenisation in all parts of the world that imperils the survival of cultural traditions. On the other hand, the technological society itself creates new differences, variety, and contradictions at every level (see Strijbos, 1997). In this vein Wolterstorff (1983: 33) accordingly concludes, citing Wallerstein (1979: 73),

> ... that it is not possible theoretically for all states to 'develop' simultaneously. The socalled 'widening gap' is not an anomaly, but a continuing basic mechanism of the operation of the worldeconomy. Of course, some countries can 'develop'. But some that rise are at the expense of others that decline.[2]

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2. It is to be anticipated that modernisationists will offer an alternative assessment of the gap between rich and poor countries. Thus De Sola Pool (1990: 169) states: "Technology transfer is one reason why the gap between the poor countries and the rich countries on the average narrows. Contrary to the popular cliché that bemoans the widening of the gap, the statistics show the opposite." De Sola Pool's position is not convincing. His observation that the

Development ethics

Denis Goulet, an early pioneer in the field of 'development ethics', warns in the foreword to his study of the same name against what may be called an instrumentalist mentality. Ethicists and in general philosophers who offer no resistance to this mentality may even step forward as technical experts having some special expertise to solve problems. However, the true task of ethics, and especially of 'development ethics', so Goulet believes, is something entirely different from "instrumental normsetting in development processes". Goulet claims that

> ... what is needed is a critical questioning of the very nature of development and its declared goals: a better human life and social arrangements that provide a widening range of choices for people to seek their common and individual good (Goulet, 1995: ix).

Where ethics is concerned, I would add to what Goulet has said, not with setting norms but with discovering norms. To discover norms is not to construct an ideal picture that floats above reality but to search for a renewing perspective in the concrete, developmental movement of modern society. Two Dutch economists, Bob Goudzwaard and Harry de Lange have elaborated this view of development ethics in an inspiring way. I want to follow their thinking here for a moment.

With their book *Beyond Poverty and Affluence* Goudzwaard and De Lange (1995) argue that our economy has reached a point that calls for fundamental renewal. The dilemmas of our time demand a new economic agenda. And in the last chapter of their book, they present a concrete twelvepoint agenda for economic recovery. For authentic renewal, nothing less is needed than 'conversion' and a thoroughgoing renewal of the foundations of our society.

> What we need is a prophetic openness, in the sense of the biblical prophets who startle and arouse us to action, combined with infinite patience and inventiveness in stimulating change toward the common good (Goudzwaard and De Lange, 1995: 134).

To illustrate how farreaching a societal transformation is needed, Goudzwaard and De Lange juxtapose the pictures of a traffic tunnel and a fruit tree, two metaphors for a society with totally divergent structural principles.

Consider a traffic tunnel and a fruit tree. The function of a tunnel is to channel traffic through as quickly and safely as possible. In a tunnel one is on the way to a goal: the light at the end of the tunnel. To realise maximum efficiency not everyone, however, can be admitted to a tunnel. Some drop out along the approaches, and some have to be excluded from the flow of traffic. A fruit tree works according to entirely different principles. Cooperation of all its cells is needed if the tree is to bring forth blossoms and produce fruit. Every fruit tree

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gap "on the average narrows" meshes precisely with the notion put forward by world-systems theorists that "the 'gap' is not an anomaly, but a continuing basic mechanism of the operation of the world economy". Namely, the gap can "narrow on the average", whether temporarily or not, and at the same time function superbly as the basic mechanism for the world economy in a technological society. This basic mechanism is in fact alluded by De Sola Pool (1990: 169) himself when he signalises, somewhat earlier, that, "It is a continual game of leap-frog. Countries that latch on to a technology first may find themselves by-passed and regain the lead only if they leap once more."

possesses a kind of builtin 'wisdom'. Once it has reached a certain height, it stops growing and occupies itself with bringing forth fruit.

What Goudzwaard and De Lange mean by their telling metaphors of the 'tunnel society' and the 'fruit tree society' is clear. The 'tunnel society' is the image of our present society, distinguished as it is by endless expansion of production. This expansion will convey us, so our tunnel travellers hope, to the light at the end of the tunnel: greater prosperity, with the means required to care for the humanity and the environment that we have neglected during our trip through the tunnel. The care that was needed in the tunnel, but that had to be rudely eliminated, must be compensated for in the form of post-care. Yet that, precisely, is what currently seems not to work; we push up the tempo in the tunnel yet draw no nearer to its shining end.

> With a kind of tunnel vision, we then appeal for more production to finance more post-care expenditures. But now suddenly the possibility looms that, because our society's critical needs are escalating at an unprecedented rate, and because scarcity is rapidly becoming more and more generalised, the tunnel is becoming a closed loop. Perhaps we will continue to produce and produce, but the promised prosperity will never arrive. Scarcity will arrive instead (Goudzwaard and De Lange, 1995: 136).

Is there a solution for the problems that threaten to overwhelm us? Goudzwaard and De Lange's answer is given with the metaphor of the fruit tree. In their view, our times require a societal transformation from the present 'tunnel society' to a 'tree society'. And that implies at the same time a transformation from a 'post-care' to a 'pre-care' society.

> A pre-care economy includes rather than excludes people; it internalises and takes responsibility for its effects rather than expels them to other sectors of society; and it practices restraint and replenishes rather than extracts (Goudzwaard and De Lange, 1995: 137).

Finally

I conclude with several observations.

1) In the first place, I want to say that the image of the tunnel society fits well the characteristics of the technological society. When Goudzwaard calls attention to the ever more forced growth economy, then this has everything to do with the fundamental character of modern technology. The one technological innovation makes the next one necessary. Once technology has been freed from its cultural connections, as described above, it becomes unrestrainable. Decontextualised technology produces consequences that people cope with through more technology. It is similar to the use of medicine: side effects (an inappropriate term, since these effects are normal) must be treated with still more medicine. Problems of society and culture necessarily seek resolution in the next step forward as a basic mechanism of our technological society.

2) A second point concerns the externalisation of various tasks of care and responsibility in the tunnel society, so keenly noted by Goudzwaard and De Lange. It is difficult to deny: the tunnel society demands sacrifices. Various weaker parties are excluded or marginalised: one's fellow who is found incapable of 'productive' labour, the

environment and people of the third world. Yet all this is not without its damaging consequences and society is presented with the bill soon enough.

> In a competitive climate, business finds it necessary to extract as much as possible from the services that land, labour, and capital provide. But this extraction gives rise to the need for society to remedy the distress caused by unemployment, environmental destruction, and workplace stress (Goudzwaard and De Lange, 1995: 136).

My point is that here too something is written that is typical, once again, for our technological society and culture. There is talk of a perverting of technology, of a false notion of the chances of science and technology for greater humanity, as the natural scientist and cultural critic Dippel[3] has shown in a sublime way. While modern technology provides people with the material possibilities for elevating life, that is, for more rest and time for activities and work that cannot be realised directly through technology, precisely the opposite occurs. In a purposeless, cultureless time everything is sucked into the realm of technology. In this respect too modern technology, in which the roles of technology and culture have been switched, knows no limits.[4]

3) Finally, what are we to do with what Goudzwaard and De Lange have offered us? Elsewhere I explained (Strijbos, 2006a; 2006b) that it is typical of the technological society that people and things have increasingly come to function within humanly organised collective systems. For their existence and survival, people have become dependent on such collective systems. The transition from traditional societies to a modern one implies that 'natural' communities and their traditional patterns are supplanted by a multiplicity of organised interest groups. The new sociological reality of collective systems confronts us with a relatively new field of ethics, which I have called systems ethics. For the normative elaboration of systems ethics as the socialcultural ethics of a technological society I have introduced the idea of an 'ethics of disclosure'. Goudzwaard and De Lange's ideas regarding the transformation of a 'tunnel society' into a 'tree society' are an excellent example of how the further elaboration of this idea is possible.

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3. Especially important are three essays on "Techniek en cultuur" in *Verkenning en Verwachting* (1962: 9-61) and a paper on "Natuurwetenschap en techniek: Onbegrepen kansen voor meer menselijkheid" in *De Omgekeerde Wereld* (1973: 45-77).

4. Elsewhere Goudzwaard (1979: part IV) discusses at greater length the relation between science, technology and economics in connection with the idea of progress in a tunnel society. He again uses an excellent metaphor that of three funnels fitted into each other. Technology, science and economics each represent a funnel-like narrowing. First, the funnel of science is fitted into that of technology, and then these two are surrounded by the funnel of economics. While I do not want to discuss this representation of matters more extensively here, it seems to me that it treats the idea of technology rather too narrowly.

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Religious Roots of Information Technology[1]

Andrew Basden, Carole Brooke, Richard Russell and Philip Holt

Introduction

Information technology (IT) is assumed to be entirely secular in itself. Religious issues are not only largely excluded from discourses in IT, but should be so excluded. This is the view of Noble (1997), who wrote about *The Religion of Technology*. He argues that modern technology and religion have evolved together and that, as a result, the technological enterprise is suffused with religious belief: technology itself has become a religion. Noble sees any religious view of technology as entirely detrimental because this blinds us for our real and urgent this-worldly needs. It is also similar to the view of Habermas (2002), who sees communicative action as able in principle to establish a public, neutral space within which religious views may be situated and accounted for. At the other extreme is the view that it is technology and modernity that are detrimental. Most of the holders of what can be called a 'directional' or 'worldview' perspective are highly critical of modernity and Western technology and much less critical of non-modern and non-technological cultures and their religious views. Either way, religion and technology/modernity are considered having very little to do with each other.

But there is a third position, that religion and technology are closely intertwined. One type of relationship between them is obvious: religion today uses technology – in dissemination of religious views on the Internet, to computers and beamers used in religious services, to religious broadcasting, and even back to the invention of printing, which spurred on the European Reformation. Another type of relationship is to use religious concepts, such as worship, as a source of contingent metaphors in discourse on technology. But is not the relationship between religion and technology more profound than this? In particular, how does religion influence technology? If this influence is not obvious, it might be because it lies beneath the surface, as a 'religious root' of technology.

The main purpose of this article is to explore various types of 'religious root' of technology, and in particular information technology (IT) or, broader, information systems (IS). It presents an overview of the issues as they are currently understood, so as to provide an initial understanding of the structure of the field that can guide future research.

Though this third position might be commensurable with a perspective of context-ualisation and social construction of technology, in that both place non-Western cultures on a par with Western, and both allow development to be an intercultural endeavour, they are not identical. We do not wish to be constrained by social construction as the sole account of possible links, but rather allow other ways in which religion might affect IT to reveal themselves. In this article, we want to delineate broad types of religious influence on IT, so as to begin to understand them.

First, the nature of non-neutrality of IT is explored. Then three main types of religious influence are delineated and discussed. This view is then applied in two different ways, to a conceptual model employed by a large section of the IS community as an explanatory device, and to a concrete example of an IS in use by an organisation in the real world. Finally, some conclusions are drawn, with strategic suggestions for future research.

On the non-neutrality of information technology

The assumption that technology is neutral is still widespread. First, we review some of the debate on the nature of the non-neutrality and the place religion plays, then we discuss to what extent religion is a necessary root of information technology as opposed to being a mere historical example.

The presumed neutrality of science and technology

A convenient starting point for our narrative can be found in the thirteenth century. Thomas Aquinas (1225-1274) maintained that 'natural reason' (observation and analysis) unaided could rightly understand not only the 'natural world' (e.g. physics, astronomy, biology, psychology, economics, aesthetics, politics, ethics) but could also make inferences from general features of this natural world resulting in a rational 'natural theology' concerning its origin and design. To Aquinas this was self-evident from the wide-ranging works of Aristotle. Aquinas wishes to cap this edifice of knowledge with 'supernatural theology' – based on divine revelation – as the 'queen of the sciences' with philosophy as its 'handmaid'. We are emphatically not taking this thirteenth-century scenario as ideal, because it contains the seeds of its own destruction; for it embodies a principled denial of the very possibility that science and philosophy have religious roots in the sense for which we are arguing.

In the course of the Renaissance and Enlightenment we have the rejection of the queen, who is usurped first by philosophy that in turn is usurped by the sciences, so the hierarchy is reversed. This declares that any possible philosophy or theology must work within the parameters (reality framework and methodology) articulated by science. However under the regime of Positivism this containment is replaced by abolition – the role of science is radicalised and absolutised. Science alone remains standing – the sole form of human knowledge, the single source of all cognitive legitimation concerning all possible realities. From the 1920s through to around 1960 this outlook was given a powerful re-articulation by the members of the Vienna Circle who styled themselves Logical Positivists.

At the core of this movement was an attempt to formulate a criterion, known as the verifiability principle. This principle was intended to have the function of sharply distinguishing between meaningful (= empirical, scientific) statements and the 'meaningless' pseudo-statements of theology and metaphysics, with a view to their elimination. However, having successfully eliminated theology and metaphysics, such a view then went on to wreak complete havoc in the sciences and common sense too. Hardly anything was left standing. Weaker versions were tried, but those would let theology back in. The Positivist project was inherently unable to deliver what it sought. It could not establish a 'neutral' science, freed from all opinion. From this narrative, it can be seen that the neutrality postulate is itself a presupposition rather than a fact. Its legacy is still with us, leading to the widespread assumption that technology is neutral, but this assumption is being challenged from many directions.

The non-neutrality of technology

The nature of each challenge to the neutrality-assumption depends on the stance taken with regard to technology, its relationship with humanity and its place in the world or society. Mackenzie and Wajcman (1999) mention three stances. The stance of technological determinism is that technology determines its own path of development, and that all that human beings can do is adapt to this as best they can. It might seem that, under this stance, technology is neutral, but it would be more accurate to say that technology sets and determines its own values, and thus defines for us its own idea of The Good. The stance of social construction of technology (SCOT) put forward by Pinch and Bijker (1987) holds that the nature of technology is determined by social processes, and technology is not neutral because it reflects social preferences. Mackenzie and Wajcman criticise both stances for being one-sided and draw attention to a third approach, social shaping of technology (SST), in which there is a circular relationship between social forces and technology, technology affecting the structure of society and the structure of society shaping technology.

If we take SST to be the most sophisticated of the three stances, the non-neutrality of technology is founded in society's preferences, as with SCOT, but the picture is more complex because these are, in their turn, influenced by technology. Bijker and Law (1992: 11) express the circular relationship as follows:

> ... we have argued that a concern with the social shaping of technology is important for a number of separate reasons. As is obvious technology is ubiquitous. It shapes our conduct at work and at home. It affects our health, the ways in which we consume, how we interact, and the methods by which we exercise control over one another. The study of technology, then, has immediate political and social relevance. And to be sure, because technology is treated as one of the major motors of economic growth, it has similar economic and policy relevance. Technology does not spring, *ab initio*, from some disinterested fount of innovation. Rather, it is born of the social, the economic, and the technical relations that are already in place. A product of the existing structure of opportunities and constrains, it extends, shapes, reworks, or reproduces that structure in ways that are more or less unpredictable. And, in so doing, it distributes, or redistributes, opportunities and constraints equally or unequally, fairly or unfairly.

A weakness of these stances is that they provide very little basis for normative guidance at to what is good or bad, and they are usually used only descriptively. This leaves them at the mercy of functionalism or subjectivism when an attempt is made to provide normative guidance. They provide no basis for differentiating between the benign and the malign in information technology. Technological determinism provides no normative guidance at all, except that we should accept and adapt to technology as it marches inexorably onwards; and even so it gives no reason why we should accept and adapt. SCOT reduces normativity to subjective or intersubjective values, but gives no reason why the intersubjective values are to be treated as absolute or authoritative. SST does offer a norm of emancipation, but what this means in practice is seldom discussed; and it does not explain why IT should emancipate.

The answer to these three 'why' questions is religious in nature, because it has to do with ultimacy. Tillich (1957) characterised religion as 'ultimate concern'. Dooyeweerd (1984: 57) elaborated this as follows:

> To the question, what is understood here by religion? I reply: the innate impulse of human selfhood to direct itself toward the 'true' or toward a 'pretended' absolute Origin of all temporal diversity of meaning.

The ultimate concern and the ultimate 'why' all relate back to an absolute Origin of all meaning and diversity. What that Origin is to us ("the god of our knowing", as Alcoholics Anonymous puts it) depends on our religious orientation. In view of this, it is not surprising to find an increasing number of attempts to link technology with religion.

Religion and technology

Ellul (1965) gives one example of such an attempt. Ellul holds that technology has to be regarded from the perspective of the Biblical notion of the fall of humanity. Therefore he argues that in a pre-fall condition, technology was not needed. According to him technology should not interfere with religious freedom. Somewhat in contrast to this, but again employing religious concepts, Noble (1997) holds that religion should not interfere with technology. In page 6 he sums up our religious attitude towards technology as paradoxical:

> The legacy of the religion of technology is still with us, all of us. Like the technologists themselves, we routinely expect far more from our artificial contrivances than mere convenience, comfort, or even survival. We demand deliverance. This is apparent in our virtual obsession with technological development, in our extravagant anticipations of every new technical advance – however much fails to deliver on its promise – and, most important, in our utter inability to think and act rationally about this presumably most rational of human endeavours.

This, he argues, is because technology is "implicated in the Christian project of redemption" so that even our mundane technological activity is devoted to 'other-worldly' ends: "the recovery of mankind's lost divinity".

Noble recognises that 'collective myths', which humanity has always constructed, can be important to "guide and inspire us, and enable us to live in an ultimately uncontrollable

and mysterious universe" because they provide a coherent sense of meaning and control. He continues:

> But if our myths help us, they can also over time harm us, by blinding us to our real and urgent needs… (His book) is offered in the hope that we might learn to disabuse ourselves of the other worldly dreams that lie at the heart of our technological enterprise, in order to redirect our astonishing capabilities toward more worldly and humane ends.

Thus, in contrast to Ellul, Noble sees religion as ultimately evil, and its influence on technology as a distortion of technology's potential. Noble would like us to undertake the technological project without reference to religion and without any religious attitude.

Stahl (1999), however, believes that this is not possible or, if possible, not desirable, especially when we consider information technology. He argues that beneath much of our discussion regarding information technology is a mysticism that remains unacknowledged, and that by not acknowledging it, we are in danger of depriving ourselves of ethical and intellectual resources with which to understand the impact of technology on humanity and confront the changes it brings. IT is not neutral. Much of it is 'masculine', as exemplified for example in computer gaming. Adam (1998) develops a similar point on the masculinity of artificial intelligence. To Stahl, such non-neutrality is religious in nature, not merely sociological. There is an 'implicit religion' in IT.

Similar to Stahl, Szerszynski (2005) argues that it is important to acknowledge a religious element in technology. The 'disenchantment of nature', a notion so widely accepted over the past century, is critically examined and reinterpreted. Contemporary thinking and practice concerning both nature and technology retain an important religious element, which is especially evident in New Age and neo-Christian 'new religious movements', which Szerszynski specifically discussed in Szerszynski (1992). He calls for a 're-sacralisation' of the discourse regarding nature and technology.

As an example of this, Szerszynski (2006) attempts to articulate a 'techno-demonology', and this provides a basis for understanding how technologies confront us as malign or indifferent rather than good. He argues, first, that to do this we must be able to 'name' the ways in which technologies present themselves to us as autonomous powers, and differentiates technical systems, which we have come to treat as ends in themselves and which control human action, from technologies, which overwhelm their intended purposes with unanticipated side effects. Second, he suggests that we should be able to understand how techno-demons arise, and discusses examples drawn from recent history. Finally, he argues that techno-demonology should include the 'redemptive' task of restoring technology to its rightful place.

Chris Russell (2007) does something similar. He applies 'theologically-inspired critique', which involves taking themes from theology or extant religion and applying them in the context of IT/IS. Applying concepts related to the devil – temptation, deception, destruction – to the marketing of mobile technology, he suggests that knowledge workers are 'tempted' by the vendors, are 'deceived' by the promises made for the technology, and have their work-life balance destroyed.

The inescapability of religious roots of technology

All these authors note and discuss the phenomenon of religion related to technology, and make a compelling case for its importance in the emerging discourse of the field. However, they all share a weakness, in that they do not adequately discuss whether religion is a necessary condition for technology rather than a mere historical contingency. The above approaches to the relationship between technology and religion sees both as distinct spheres of human life that are brought together more or less at the same level. Whether the relationship is made or not is optional.

There is another approach, in which religion underlies technology as something that is no longer optional but is inescapable. In this approach, the way technology is developed and used is determined by religious commitments that are usually of a tacit nature and seldom made explicit. This is hinted at in Stahl's (1999) notion of 'implicit religion', but to explore this kind of relationship requires philosophy that allows and encourages us to make a transcendental critique of technology.

Drawing on the philosophy of Dooyeweerd (1984), and the work of many other philosophers of science, this relationship may be depicted by means of the tree shown in Figure 1. As the very antithesis of Positivism, which assumes that facts are neutral, this approach recognises not only non-neutrality, but multiple levels of non-neutrality, the deepest of which, underlying all is 'ultimate commitments' or 'religious roots'. Facts (observations) are not neutral because they arise from classifications and distinctions. These are not neutral, because they arise from theories or hypotheses, as Popper (1972) argued. These are not neutral because they arise from paradigms, as Kuhn (1970) argued. These are not neutral because they arise from research programmes, as Lakatos (1978) argued. Even these are not neutral, because they arise within disciplines. Disciplines are not neutral because they presuppose a systematic philosophy, whether this is explicitly worked out or not. A systematic philosophy is not neutral, because what both 'systematic' and 'philosophy' mean depends on our life-and-world-view (LWV), which is closely related to our common sense or life world – as Husserl (1970) and others argued. These in turn are not neutral, argued Dooyeweerd (1984), because they arise from, presuppose and are based on religious ground-motives.

Figure 1: A multi-level view of the structure of human knowledge

Facts
Classifications
Theories
Paradigms
Research Programmes

Disciplines

Systematic philosophy

Theoretical

Life and world view   Pre-theoretical

Ultimate commitments
(Religious roots, ground-Mortives)
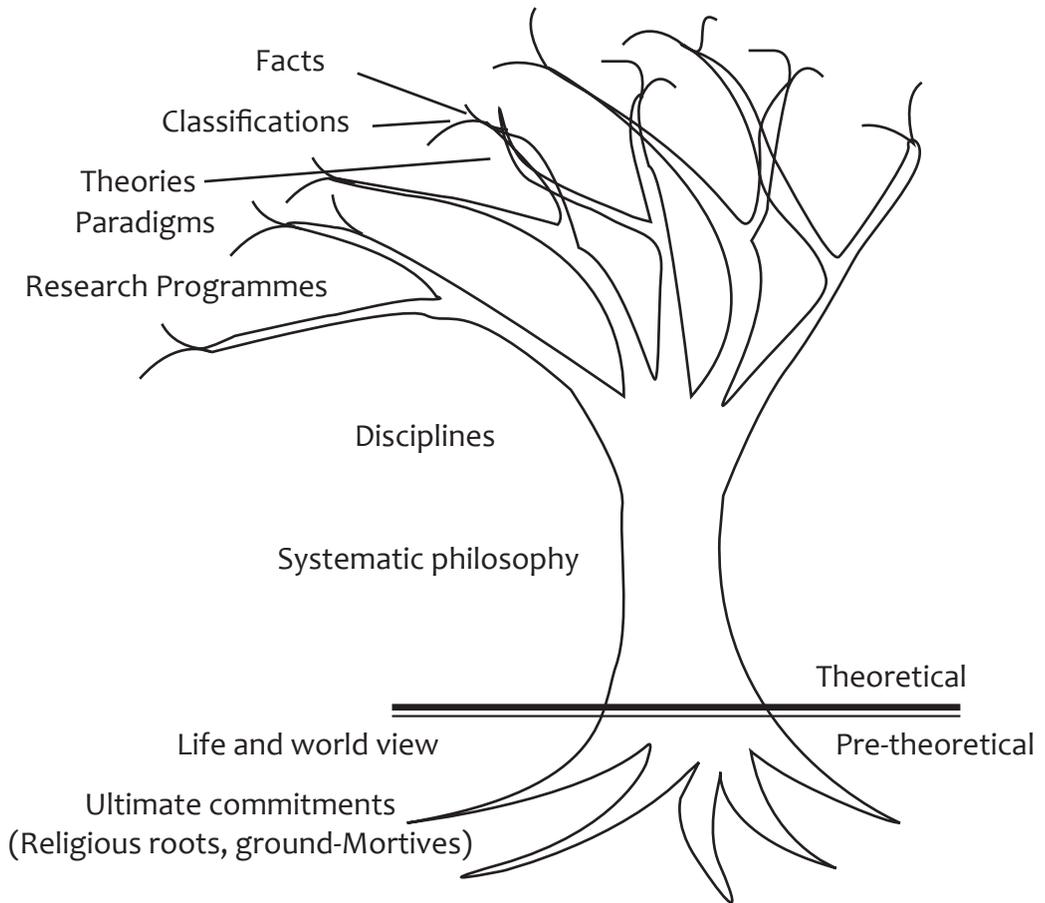
What Dooyeweerd meant by ground-motive was a very basic presupposition concerning the nature of reality: of existence, of meaning, of good and evil, etc. A ground-motive holds sway in society for centuries; see Dooyeweerd (1979) and Basden (2008) for a discussion of four main ground-motives of Western thinking over the past 2 500 years. That which is religious is, by definition, not neutral.

Religion, thus defined, influences all above it – LWVs, philosophical systems, disciplines, research programmes, theories, classifications and facts. The tree model makes clear that there is no simple deductive relationship between religion and the content of the special sciences. Instead, the deeper levels provide the conditions for the possibility of the upper or more visible levels.

This model was originally devised to explain the non-neutrality of reason and scientific thinking, but it can be applied to technology with minor modifications. A discipline involves more than science; it also involves technique and technology. The three deepest levels remain the same. It is only at the level of disciplines that a differentiation into topics occurs, as shown by the branches in Figure 1, and each indicates a distinct special science and a

distinct type of technology. Thus, for example, mechanical and chemical technologies are aligned with the sciences of physics and chemistry, whereas information technology is aligned with information science, semiotics and linguistics.

The religious impact of a ground-motive on a discipline may be seen in the field of sociology. The ground-motive currently holding sway is that of nature-freedom, which presupposes that control and freedom, objectivity and subjectivity, fact and value, are mutually exclusive and even work against each other. As Eriksson (2006) has argued, the well-known Burrell-Morgan model of sociological perspectives may be considered an expression of the nature-freedom ground-motive. It has two axes, both of which express the opposition between nature and freedom in different ways: objective – subjective, and consensus – conflict; see below. At any stage in history, the current ground-motive has many, subtle and unseen influences on theoretical thinking.

Another example may be found in Adam (1998: 179), who shows how a logic-based view in artificial intelligence led to the culpable ignoring of many aspects of human life, and deeming them as irrelevant. What is particularly damning in her view is "an assumption that this does not even have to be made explicit" – that is, the logic-based view is 'obviously true' – and that this assumption "is a way of silencing other perspectives".

Relationships between religion and technology

From the above discussion, we can discern three ways in which religion relates to technology. The three relationships exhibit different characteristics, summarised in Table 1.

One, exemplified by Noble (1997) and Stahl (1999), is that humanity approaches technology with a religious attitude – such as of trust, worship, 'obsession' or idolatry, or their opposites. In this attitude, the community of thought is either for or against technology, and the attitude is unquestioned. A religious attitude determines what we aspire to in life and affects both our use and development of IT. This type of relationship is easily made visible.

The second relationship is exemplified by Szerszynski's (2005) techno-demonology and Chris Russell's (2007) application of concepts such as devil and temptation to technology. It is an application of religious motifs to help us understand technology's place in human life and society. This type of relationship is usually deliberately created by reflective thinkers, theoreticians and philosophers of technology and thus is highly explicit.

The third relationship is one of establishing the possibilities for technology. Religion is defined somewhat differently, taking the form of a deep presupposition regarding the nature of reality, and it deeply influences our life-and-world-views and, by indirect stages shown in Figure 1, all that happens in science and technology. Here the relationship is usually invisible until exposed, which explains why many have assumed that technology is neutral.

The first relationship is a link between technology and religion in life, the second is a link between technology and religion in reflection, and the third is a link between technology and religion in society's deep presuppositions that most seldom investigate or question. The first link is a religious attitude to concrete human activities, the second is a religious attitude to concrete human conceptualisation and theorising, and the third is a religious attitude to possibilities and generalities of technology. The three types of relationships are not independent of each other and might co-exist.

Table 1: Comparison of three religion-technology relationships

Factor	R1: Religious attitude to technology	R2: Using religious concepts	R3: Religious roots
Where is the relationship operative?	In life including social life	In reflection and theorising	In long-term development of ideas
To what is the religious attitude directed	To concrete human and social activities	To concrete theorising and reflecting	To the nature of reality
Visibility of relationship	Visible when you look for it	Created explicitly; always visible	Tacit: deep presuppositions
Is relationship optional?	Can be ignored	Need not be created	Inescapable

Types of religious influence

We will now examine each of the three ways of relating information technology and religion in more depth.

Religious attitudes to information technology

There are several religious attitudes to IT. The first is trust. This occurs at two levels: trust in specific instances of the technology and trust in the technology as such. Trust in specific instances includes reliance on a piece of software to produce desired (or undesired) effects, and trust in the human activity of using it. Walsham (2001), for example, highlights the issue of trust, citing work by others as well as his own cases. He discusses public trust in expert systems, arguing that it cannot be taken for granted. Sometimes people seem to act as if they trusted a system when in reality they do not, but have no means of expressing distrust. Trust is essential for effective use of IS. But trust in IS cannot be divorced from trust in other people, such as experts, customers, suppliers or colleagues.

Trust in the technology as such takes a different form, not so much a reliance as an unquestioned commitment to a strategic direction. It may be seen most clearly at government level, where governments all over the world pour huge resources into e-governance or aspire to do so, with very little serious critique of such programmes (Heeks, 2006). He shows that the e-government hype is not e-government reality. Failure to deliver what is expected or promised is characteristic of an idol, as we will see below. Questioning is despised or treated as heresy. This kind of trust might be well-placed or misplaced. Too often it is the latter, and commitments may result in highly detrimental outcomes, and as the problems begin to emerge, the adoption is actively defended, sometimes involving actions of borderline ethicality. Unquestioned adoption, despising of questioners, refusal to acknowledge emerging problems, active defence and the willingness to sacrifice ethicality are all indicators of a religious root, rather than a mere rational decision.

A second religious attitude is loyalty. While there is a type of 'loyalty' born of inertia and lack of dissatisfaction with the technology one is using, there is also a loyalty that arouses passion because it is religious in nature. A clear example of this is the loyalty that adherents display towards their favourite computer platforms (e.g. Apple Macintosh, Amiga), operating systems (e.g. Linux), and programming languages (e.g. C++, Java, PROLOG, LISP). Out of such loyalty arises what some have, jokingly but not inappropriately, called 'holy wars': a religious term.

A third religious attitude to technology is what has been called idolatry. Idolatry is mentioned by Stahl (1999) and is what troubles Noble (1997). Idolatry may be partly considered an extreme form of trust and loyalty, but it takes on a qualitatively different form, in that trust and loyalty are placed in and given to technology that is given to us, whereas idolatry urges us to fashion something that does not yet stand in front of us. Idolatry is more than a metaphorical ascription, as Goudzwaard shows. He (1984: 21) characterises idolatry as:

> Suppose we consider the worship of a wood, stone or porcelain image, a practice still common in the world today. This worship has several steps. Firstly, people sever something from their immediate environment, refashion it and erect it on its own feet in a special place. Secondly, they ritually consecrate it and kneel before it, seeing it as a thing that has life in itself. Thirdly, they bring sacrifices and look to the idol for advice and direction. In short, they worship it. Worship brings with it a decrease in their own power; now the god reveals how they should live and act. And fourth, they expect the god to repay their reverence, obedience and sacrifices with health, security, prosperity and happiness. They give the idol permission to demand and receive whatever it desires, even if it includes animal or human life, because they see the idol as their saviour, as the one who can make life whole and bring blessing.

He then shows how this fits our attitude to technology. From the above passage and other writings by Goudzwaard and others (e.g. Walsh and Middleton [1984]), we can summarise characteristics of an idol and see clearly how it applies to IT/IS with the following examples of each point:

- An idol is set apart in a privileged place, is given special esteem: Governments and large corporations provide large budgets and concessions for furthering IT, which are denied to other areas of human endeavour. We, the public, aspire to obtain technological goods.

- An idol determines the meaning or value of everything else: Human activity is often deemed meaningless or boring if not technicised. All activities of everyday life – of business, shopping, education, fun and even worship – are deemed superior if they employ IT.

- An idol determines whether a thing exists or is destroyed: We seem happy to accede to environmental destruction that results from our use of technology, including IT. 'Old-fashioned' ways of doing things (such as paper-based commerce) are eradicated.

- An idol directs people's lives, and reduces their freedom: Our life becomes shaped by IT: social life by mobile phones, business life by e-commerce, talks and lectures, in many places, by restriction to using only a computer with a beamer, even when these things are inappropriate.

- An idol has things sacrificed to it, or for it: The freedom, life-choices and even lifestyle of those without (certain forms of) IT is curtailed. This might be unwitting, but when this is pointed out, those who make strategic decisions often deem it a sacrifice worth making.

- An idol is protected at all costs: For example, when a major IT project is obviously going wrong, rather than seriously questioning it, more money is thrown at it. In this way, an idol leads us to raise the stakes in its favour.

- An idol is willingly submitted to: We patiently endure the time it takes to download large e-mails, and feel inferior if we complain.

- An idol is never questioned, and questioners are deemed heretics: It is extremely difficult to obtain a serious critique of whether new IT is appropriate or justified; the debate, if any, is usually restricted to what kind of IT to adopt.

- An idol often delivers the opposite of what it promises: The 'paperless office', 'convenient' e-mail, etc.

Notice how idolatry is primarily a social rather than individual phenomenon, even though it operates at an individual level by means of a myriad of individual decisions.

Thus we have three main religious attitudes to technology: trust, loyalty and idolatry. Lonergan (1992) argues that for any religious position is a dialectically-opposed counter-position. Trust may be counter-posed by distrust. There is a type of distrust that is mere caution; this is not religious in nature, because it can be ameliorated by answering the questions it poses. Religious distrust, by contrast, refuses to be satisfied by any answers to the questions it poses, and simply keeps on finding more reasons to justify itself. Counter-posed to religious loyalty is not disloyalty but loyalty to something else, and it is this that generates the above-mentioned 'holy wars'. There seems to be two possible religious counter-positions to an idol. One is implacable opposition, which might be considered an inverted idolatry, to the negation of the original idol. Implacable opposition to technology as such is rare, and is usually dubbed 'luddism'. The other counter-position is refuse to idolise, to affirm the thing that was the idol but no longer 'set it apart' or sacrifice to it, and to reintegrate into the rest of life.

Use of religious concepts

The second way in which religion relates to information technology is to employ religious concepts to guide our engaging with technology, to help us understand issues in it, or to inspire visions for it.

Religious concepts can guide our engaging with technology if we cite statements from religious or wisdom writings and reinterpret them in the context of IT/IS. For example:

- "A good tree cannot bear bad fruit, nor a bad tree good fruit." If the very nature of some type of IT is rotten, then while it might bring some temporary benefits to some (perhaps those in power), in the end, its total impact will be harmful.

- "And, having food and clothing, let us be content." A warning against too much ambition, especially in technological development.

- "Owe nobody anything; except to love each other." A warning against a debt-fuelled economy and growth of IT organisations by means of borrowing. But the linking it with love suggests the primary meaning of this statement is not to express a general economic law (though it might be that) but to focus on what Hyde (1983) calls economy of gift.

- "Blessed are the meek; they will inherit the earth" At academic conferences, do not attempt to show what a great contribution you have made (because when you

do a competitive attitude sets in and the others will not listen to you), but rather take a humble attitude which does not parade self, and then others might listen and adopt your ideas.

■ "You shall have no other gods before me." Be very careful that IT in no way becomes an idol nor is absolutised.

A number of questions must be addressed. How should we interpret these statements: As irrelevant utterances from a bygone age, as comfort after the event, as guidance in every situation, as general guidance under certain conditions (but what conditions?)? Recent experience in, for example, business and management (Collins and Porras, 1998), suggests that the rationalistic-competitive ethos is ultimately self-defeating and that other aspects such as generosity and vision are important. If prescriptive statements are deemed valid and beneficial, to what extent should we expect that it is the ones who obey them who will benefit, and to what extent will it merely help society accumulate 'ethical capital'? Other questions demanding consideration include: To whom are they relevant: only to believers or to everyone? What exceptions are there (for example, does a situation of competition negate these completely, partially or not at all)? Should we attend to the principle behind the utterance or to its details? Should we attend to the illucutionary intention of the original speaker, or only the locutionary intention (Searle, 1969)? If such questions are not addressed then use of religious texts is ephemeral and unable to offer clear insight.

Religious concepts can help us understand issues in IT/IS if we apply concepts that have matured within theological circles to equivalent issues in IT. We have already cited Szerszynski's (2006) use of the concept of demonology in this regard and Russell's (2007) use of the concepts of devil and temptation. Just as the devil tempts, deceives, destroys, and promotes evil, so does the marketing and consumption of mobile technology by knowledge workers. In 'temptation', the vendor engages in certain types of discourse with both knowledge worker and employer; different discourses are used. In 'deception' "the knowledge-worker finds that just as Satan can masquerade as an angel of light, this artefact is not (just) a tool of consumption, it is a tool of production as they run up against the deadlines for their promised productivity." In 'destruction' the knowledge-worker finds that "in return for the temporary satisfaction of their surplus desire – manipulated by marketing – they have consented to disruption of their work-life boundary; they may even be addicted". This use of concepts is much more complex and sophisticated than is the citing of religious texts, and exhibits a systematicity that facilitates research into such issues. Whereas most extant examples of this have employed religiously negative concepts (devil, etc.) in order to explain malignity there is no reason why positive concepts should not also be employed to understand how to overcome this. Such an approach can open up new, hitherto overlooked, directions for IT research, which in turn influences IT itself.

Religious concepts can also be used inspirationally to get people to listen to a new vision. Barlow's (1996) *Declaration of the Independence of Cyberspace* is a polemic against the conventional realities that are based on matter, and its attendant legal and moral systems, and proposing that cyberspace is a reality of pure mind, for which completely different legal and moral systems should be worked out. His polemic reads similar to the tract of a revivalist preacher of the nineteenth century, and as such it is inspiring and forceful. Recognising the

inspirational effects of passionate religious concepts can help researchers in the sociology of technology to understand why new life-and-world-views emerge.

To sum up, we can take statements from religious texts and reinterpret them in the context of IS, often metaphorically, we can use theological concept-structures and make deductions from them to shed new light on issues, or we can use religious feeling or practice to understand the promotion of vision. All three occur in relation to IT/IS.

Religious presuppositions that underlie technology

The third way in which religion relates to technology is that the very possibility of technology depends on religious ground-motives as depicted in Figure 1. Ground-motives were intensively discussed by Dooyeweerd (1984) but thinkers such as Habermas (2002) and Heidegger (1971) also acknowledged them, though under different names. The word 'ground-motive' is an attempt to translate the Dutch word *grondmotieven*, which Dooyeweerd argues (1979: 9):

> ... have been the deepest driving force behind the entire cultural and spiritual development of the West. One can point to such a ground-motive in every religion. It is a spiritual force that acts as the absolutely central mainspring of human society ... It thus not only places an indelible stamp on the culture, science, and social structure of a given period but also determines profoundly one's whole worldview.

Dooyeweerd delineated four main ground-motives behind Western life and thinking over the past 2 500 years:

■ the Greek ground-motive of form-matter (FMGM);

■ the Judeo-Christian ground-motive of creation, fall and redemption (CFR);

■ the mediaeval ground-motive of nature-grace (NGGM), which arose from a synthesis of them and itself gave rise to; and

■ the humanist ground-motive of nature-freedom (NFGM), within which arose the Science Ideal and the Personality Ideal as dialectically opposing poles.

Looking at an issue through the lens of FMGM would separate issues of form from those of matter, and usually focus on one at the expense of the other. Likewise, the lens of NGGM would separate secular issues from sacred, and that of NFGM would separate control and determination from freedom. The lens of CFR would separate out the diversity of meaning of many aspects of the issue, but retain some coherence between them.

Dooyeweerd (1979: 112) did allow for other ground-motives, himself mentioning that of the Zoroastrian religion and Choi (2000) discussing those of Korean thought, but he discussed these four in some depth. Heidegger (1971: 29), in relation to the synthesis that led to NGGM, spoke of "matter and form borrowed from an alien philosophy". Habermas (2002: 157) seems to have understood something similar when he speaks of synthesis between 'Athens' and 'Jerusalem'.

Dooyeweerd made ground-motives an object of philosophical reflection. He showed how the ground-motives could account for the way Western science and technology develops, by

establishing or altering the conditions that make it possible for them to flourish. These are different under each ground-motive. Under the FMGM, matter was denigrated by thinkers, so science and technology remained restricted primarily to abstract concepts found in fields such as mathematics). Under NGGM, only the 'sacred' was deemed worthy of reflection and study, and so there was little incentive to study 'mundane' phenomena such as are found in physics and biology or develop technology or art centred on them except under necessity. Then with the Reformation, European thought was for a time partly influenced by a weak version of CFR. Under this, the natural world and matter, together with the human world and abstract things, were alike seen to be of value and worthy of study, because they had all been created by God and thus were invested with meaning. This provided fertile ground in which both science and technology could begin to grow, develop and become established.

In parallel with this historical development, the NFGM was born, mainly within the Renaissance. Under NFGM science and technology would be conceived differently. Dualistic ground-motives (FMGM, NGGM, NFGM) treat one pole as 'higher' and the other as 'lower'. Dooyeweerd (1979; 1984) argued that dualistic ground-motives are not merely deeply-held points of view, but have been actually harmful in their effects on Western thought, in that they hide rather than reveal the structure of reality because they close down fruitful thinking around the pole that is not currently favoured − either control/determinism on one hand or freedom on the other under the NFGM. Theoretical thought switches dialectically between the poles of the ground-motive − as may be seen in the switch from positivist to interpretivist stances in IS under the NFGM. While good debate might occur among adherents of one pole, their debate with adherents of the opposite pole is usually characterised by either polemic or conflict. Each party talks past the other, which makes Habermas' (2002) ideal of communicative rationality impossible under the influence of any dualistic ground-motive. Though most people actually recognise both poles in everyday life, academic discourse is largely constrained to be carried out in the terms laid down by the ground-motive.

We can see elements of FMGM in Barlow's (1996) polemic against 'matter', and elements of NGGM in Noble's (1997) dislike of religion. Most IS discourse is influenced by the NFGM. The main ideas that are influential within the field tend to be those that echo the NFGM, such as the Burrell-Morgan model (see below), and it can prove difficult to publish material that attempts to integrate both poles.

Under NFGM both science and technology lost much of their ability to enrich the whole of human life, focusing on either control or autonomy of certain aspects of life. No longer permeated with the notion of Divine Meaning, which is diverse yet coherent, both science and technology began to absolutise one or other aspects of reality, for example the material aspect, then the biotic, and more recently the social and economic. Thus technology, including IT, finds it difficult to address multiple aspects of the life and work of its users. Instead, aspects of IT are absolutised, for example the creative aspect by programmers, the economic aspect by business, or the informational aspect by the IS community. Though there is widespread recognition that an interdisciplinary approach is desirable, it seems very difficult to obtain the wider forms of it in IS research because of the religious presuppositions that underlie it (Strijbos and Basden, 2006).

On the other hand, Dooyeweerd (1979) argued, the CFR ground-motive tends to open up lines of development because it has a strong basis for avoiding absolutisation and is not

dualistic. Clouser (2005) explains and argues Dooyeweerd's position particularly clearly. There have been several attempts to adopt the CFR ground-motive instead of the NFGM within IT/IS. De Raadt (1991) has attempted to add Dooyeweerd's suite of aspects (based on CFR) to Beer's (1984) Viable Systems Model (based on NFGM). Basden (2008) has attempted to 'transplant' a range of thinking in five areas of research and practice in IS/IT from NFGM to CFR, by reinterpreting the ideas involved in terms of the plurality that CFR tends to engender. Schuurman (1980; 2003) has attempted to define a "liberating vision for technology" based on the notion that technology has 'Destiny' – which is understood as a fundamentally religious term – and that to fulfil this Destiny, it should be guided not only by the norms of the technical aspect but by the norms of all other aspects (such as justice or beauty). What problems might be inherent in CFR may be too early to say. It is not our purpose here to argue for one ground-motive over others, but rather to briefly report some discussions of the effect of deep religious presuppositions on IS/IT research.

Methods for considering religious roots in IT/IS

If there are such ways in which religion relates to information technology, then it is important to find methods by which to consider them in IS/IT research. Such methods are still being sought, discovered and researched, so what follows must be treated as an initial and tentative proposal. We illustrate use of the three types of technology-religion relationships identified above by reference to two worked examples, one examining the IS community's use of the Burrell-Morgan model, the other examining of an information system that is in use.

The Burrell-Morgan model

The classic model of sociological paradigms by Burrell and Morgan (1979) was widely adopted for many years to help make sense of the field of information systems research. The model suggests that research with a sociological dimension may be distinguished by the interaction of two dimensions, namely order versus conflict, and objectivism versus subjectivism from which four possible combinations are delineated: functionalism, social relativism, radical structuralism and neohumanism. Hirschheim, Klein and Lyytinen (1995) have applied the model directly to understanding IS development. After examining the ontological, epistemological and value assumptions of the four paradigms, they discuss the impact each paradigm would have on ISD as such (including role of the IS designer, nature of IS application, objectives for IS design and use, legitimation of the objectives, and deficiencies of each paradigm), on ISD functions (including preferred metaphor for defining information and for framing ISD, problem finding and formulation, analysis, logical design, 'physical' design and technical implementation, organisational implementation and maintenance), and on aspects of the developed system (including technology architecture, kind of information flows, control of users, control of systems development, access to information, error handling, training and *raison d'être*).

First, we can ask about religious attitudes towards the model. It is clear, from the plethora of factors, which are affected that the adoption of these paradigms in ISD is not merely a theoretical position but a stance at a deeper level. Is there a religious attitude here, of trust, loyalty or idolatry? That the model has, until recently, been adopted as a basis on which

arguments may be settled displays trust. The trust seems to be religious in nature to the extent that the model was, for many years, adopted almost unquestioned. As far as loyalty is concerned, there is little evidence of religious loyalty to the Burrell-Morgan model. What loyalty there is, arises simply from habits of use; there is no clear and universally-known alternative (even though many sociologists and IS thinkers might have proposed better models since then). As far as idolatry is concerned, as characterised above, there seems to be little evidence of the model itself being an idol.

However, we might detect religious loyalty in the reasons why the model is popular. The model does perhaps deserve its popularity because it is simple and elegant. But this penchant for that which is clear and elegant is itself pre-theoretical, justified by appeal to Occam's razor. This principle itself has enjoyed enormous loyalty over the years, unquestioned and being considered self-evident. It is here that some religious loyalty might be detected. Also, we might detect some idolatry in attitudes to the actual paradigms. For example, functionalist stances in IS tend to make an idol (as characterised above) of fulfilling the functional requirements, and absolutise the aspects of formative power or management, reducing all others to these.

The second religion-technology relationship involves using religious concepts. There is little evidence of this in regard to the Burrell-Morgan model.

Thirdly, we may examine the presuppositions underlying the Burrell and Morgan model. The two interacting dimensions, on which they differentiated the paradigms, order versus conflict and objectivism versus subjectivism, are presupposed to be 'self-evidently' at opposite ends of a spectrum. But is it self-evident? In everyday life one finds a mix of order and conflict, which is not merely halfway between them but a harmony of the two. Also, why should these two dimensions be privileged over others we might think of (such as beauty versus ugliness, justice versus injustice)? Eriksson (2006) and Basden (2008) argue that both dimensions are in fact variants of the NFGM, with order and objectivism aligned with the nature pole and conflict and subjectivism aligned with the freedom pole. If today's thinking is grounded on NFGM, then this explains why these two dimensions are taken to be more fundamental than others. The Burrell-Morgan model itself is thus a double-expression of the NFGM. Eriksson gives a number of reasons why the use of Burrell-Morgan can be problematic; especially that thought based on other ground-motives cannot be placed within the scheme, and is thereby marginalised.

In this way we have been able to reveal a number of issues surrounding the IS community's use of the Burrell-Morgan model, and this has been made possible by a reasonably systematic application of the understanding, developed in this article, of ways in which religion relates to technology. We have revealed two problems. One is that the model is trusted rather too unquestioningly. The other is that it is doubly infected with the nature-freedom ground-motive, which distorts our appreciation of reality. This suggests that the Burrell-Morgan model will, one day, be found to be deeply flawed, and to hide rather than reveal many important factors.

The HOPE information system

The HOPE information system was designed, developed, and is used by, Christians Against Poverty (CAP). CAP assists clients with debt problems, by helping them plan their spending,

and providing actual account facilities to assist this. The HOPE information system is used to manage this process, recording clients, their accounts and their spending. A study was made by the RRIS group of the HOPE system in October 2007, details of which will be made available elsewhere. Here we merely draw on the study to illustrate the various relationships between religion and technology.

First: religious attitudes to HOPE. HOPE is deeply trusted by all who use it. As one user remarked, "I love HOPE!" which indicates that the trust is not merely functional but has a religious flavour. There is reason for this trust, in that it is flexible, friendly and reliable. The reason for this is because of the religious attitude that CAP has towards its work; it aims "to give the very best to those who have the very least", which, in turn, is based on the Biblical notions that God loves the poor and calls his people to "spend themselves" on behalf of the poor, and that human beings are made in the image of God and hence have inherent dignity, whoever they are or whatever their situation.

CAP realised this meant that clients could not be treated as all the same, nor even as one of a few types; HOPE must allow enormous flexibility in how clients' cases are handled. This led CAP to design their own system rather than adapting an existing one.

The designer was someone who works for CAP as a debt counsellor, but who was also experienced in information system design. His religious view as a Christian was very much in line with CAP's views. Moreover, along with CAP, he saw that not only are clients to be treated with utmost respect, but so must the users of HOPE. For this reason, he devoted considerable effort to ensuring flexibility and sound logic in the human-computer interface.

HOPE's users, and indeed all of CAP, are loyal to HOPE. They are proud of it; it won a software award. This means there is ample good will towards it. However, there is no idolatry of HOPE, because Christian commitment forbids idolatry. As a result, CAP encourages its employees to criticise HOPE, and send in suggestions for its improvement. This keeps HOPE at the forefront of CAP's work.

Second, the application of religious concepts is minimal, found mainly in the name, HOPE.

Third, we may detect religious presuppositions underlying HOPE, or rather the assumptions made in the process of designing and evaluating HOPE. If we employ Dooyeweerd's (1979, 1984) categorisations of presuppositions we could proceed as follows. The FMGM divorces such things a logic and aesthetics from such things as passion or feeling. All three are important in HOPE and support each other. Design or evaluation influenced by FMGM would be in danger of downplaying the importance of one or the other. In like manner, NGGM divorces sacred from secular. In HOPE both are important, so it contains information on the faith aspect of the client's situation as well as the economic and social aspects. Design or evaluation influenced by the NGGM would either downplay the importance of one of these types of data and probably omit it from the database, or allow both to coexist. The types of data would not be integrated however, because the NGGM offers no basis for integration. This is the case with HOPE. Viewed from the point of view of the NFGM, the HOPE system makes little sense because it combines aspects of both control and freedom. Viewed from the point of view of the CFR, however, HOPE makes considerable sense in that many aspects of CAP's relation with the client are represented and, with the exception of the relative isolation of faith data, it seems well integrated. We can see the influence of two types of religious presupposition in HOPE, the major one being CFR and the minor one being NGGM.

The influence of CFR on HOPE may also be seen in facilities designed to uphold the dignity of clients ("made in the image of God") and to expect 'redemption' from the debt situation.

Conclusion

These examples should not be taken as precise descriptions of either the Burrell-Morgan model or the HOPE IS, but as suggesting how various kinds of relationships between technology and religion can be explored and examined. This chapter has sought to open up for discussion the notion of religious roots of information technology. It has identified at least three ways in which religion relates to the supposedly neutral topic of information technology:

■ Religious attitudes to IT;

■ Application of religious concepts to understand IT; and

■ Deep religious presuppositions underlying IT.

What has been argued is that information technology is never neutral. The first two types of relationship with religion are much more prevalent than most people think, but researchers are beginning to discover this. The third type of relationship means that technology is inherently and inescapably religious, even though the way it is, is frequently unseen rather than explicit.

As early as 1990 Kumar and Bjørn-Andersen (1990: 536) were discussing the influence of cultural value-systems on IS design, but they concluded:

> However, the values might not be that apparent to the untrained eye, and sometimes methodologies and their resulting systems may be implanted without regard to the basic underlying assumptions. The result of such an implant is likely to be substantial conflict and/or loss of potential.

This article might open up some pathways to research needed to overcome this. It does not so much give answers as raise a number of questions; it does not even stipulate which questions need to be addressed; rather, it suggests the overall shape of a new research programme by which the relevant questions might be formulated, before seeking to address them. For this, there needs to be careful consideration of what types of religious root there might be and we need to develop good methods of exposing them and their types, and knowing how to respond when we do so. We also need to consider how we might benefit from long experience of religious communities. Much work is needed to develop this approach, and then test and refine it and it is hoped that this article can offer some useful pointers on how to begin.

Acknowledgements

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Intercultural Development: An Outdated Concept?

Jan van der Stoep

Introduction

The main objective of this book is to elaborate a vision on the intercultural development of technology. The authors in this book explicitly want to move beyond views in which technology is understood as a culturally neutral instrument. In those views development is merely understood as a transfer of technology from modern industrial societies to countries that lack advanced technological means. In this book however we want to include the dimension of culture into our conceptualisation of development. In this way we hope to support a better and more respectful encounter between the various cultures and world religions.

But is such an idea of an encounter of cultures and the related concept of intercultural development still valid? In our globalising world, shaped by rapid means of transport and by electronic networks that connect people all over the world, cultural identities seem to become fluid, fragmentary, heterogeneous and partial. African, Asian and Western people are not bound to a fixed cultural setting, but pick and choose from various cultural traditions in order to shape their own individualised identity. Besides that the idea of intercultural development at least suggests the possibility of a peaceful coexistence of various cultures that are open to each other. It is not without reason that after 9/11 (11 September 2001) the idea of intercultural development lost its appeal to many of us.

In this chapter I will discuss the question whether the concept of intercultural development is indeed outdated in our current global age. This I will do by comparing two contrasting approaches of culture. While multiculturalist thinkers support an intercultural development in which the intrinsic value of cultural traditions is respected, cosmopolitan thinkers reject such an idea not only because it is an outdated concept, but also because it restricts people in their individual freedom. In the next section I will introduce the cosmopolitan critique on cultural pluralism. Thereafter I point out that such a critique does not do justice to the position of multiculturalist thinkers. After defending this claim I will show the weaknesses of the cosmopolitan position as such. In the first place I argue that cosmopolitanism cannot convincingly account for the use of the term 'culture' in ordinary language. And secondly I attempt to show that cosmopolitanism lacks a historical perspective, because it only takes into account synchronic and not diachronic variations. In the final section I come back to

the idea of intercultural development. What can we learn from the cosmopolitan critique on multiculturalism? And how can we preserve the unique heritage of the various cultures without nostalgically upholding a fixed historical situation?

The cosmopolitan critique on multiculturalism

A basic presupposition behind the idea of intercultural development is that cultures are encompassing and self-sustaining wholes that have their own specific characteristics. This is also the claim of most multiculturalist thinkers. You cannot reasonably defend an idea of intercultural development without an intuition that each culture is a unique and integral whole. Will Kymlicka (1995: 18) is one of those multiculturalist thinkers. A culture, according to him, is

> … an intergenerational community, more or less institutionally complete, occupying a given territory or homeland, sharing a distinct language and history.

He explicitly supports Avishai Margalit and Joseph Raz in their description of six characteristics of groups that in combination are a prerequisite to claim a right of self-determination. The group, according to Margalit and Raz (1990), must have a common culture that pervade most areas of human life (1), their culture must affect to a significant degree the way of being of most members of the group (2), membership of the group must be in part a matter of mutual recognition (3), this membership also has to be important for the self-identification of the members of the group (4), the membership of the group must be a matter of belonging, not achievement (5) and the groups concerned are not small face-to-face communities, but often have developed conventional means of identification (6). Groups that share those characteristics are integral and encompassing wholes that shape to a large degree the 'boundaries of the imaginable' and also provide an anchor for their self-identification. And that means, according to Margalit and Raz (1990: 447-9) as well as to Kymlicka (1995: 89-90), that those kind of groups are of vital importance for the well-being of their members. When their culture is in decay, also their sense of dignity and self-respect is endangered.

Cosmopolitan thinkers, on the contrary, distrust every reification of culture, and often like to get rid of the notion of culture completely. That does not mean, however, that they contest that people are culture-producing beings. They merely object that there exists something similar to culture as an encompassing whole to which people belong. According to Kwame Antony Appiah (2005: 124) for example culture is not so much an entity, which can be subject to development or decay, as well as a kind of vocabulary in which people may express their individuality. And as such people always have culture in the same way as their bodies have a certain form or breathe in oxygen. Usually cosmopolitan thinkers base themselves on recent developments in cultural anthropology, in which cultures are understood as dynamic networks of interconnectedness. They also argue that during the last decades the world has been fundamentally changed by a process of globalisation in which the distinction between various cultural traditions is blurred. If there already existed something resembling separate cultures, that picture nowadays becomes an anachronism. One thinks not so much in terms of a 'variety of cultures', next to each other, as well as in terms of 'cultural variety', that

is the proliferation of cultural repertoires from which people may draw to build their own individual identity.[1]

As Appiah, also Jeremy Waldron (1995: 102) views cultures as heterogeneous fragmented and fluid networks of meaning. One of his main targets is the appeal to belonging. Nowadays, according to Waldron, people experience friendship and community not so much in villages, neighbourhoods and national forms of solidarity as well as in the international community of scholars, the human rights movement, the community of artists, the feminist movement, etc.

Firstly, Waldron (2000: 232) holds that the notion of culture as a pure and homogenous entity, which is characterised by its distinctiveness from other cultures is merely an anomaly, an exception explained by historical contingency and extraordinary isolation. Particular cultures and national communities are not as autonomous as multiculturalists seem to claim, but depend on social, political, international and civilisational structures that sustain them, as for example Article 27 of the International Covenant on Civil and Political Rights which aims to protect ethnic, religious and linguistic minorities (Waldron, 1995: 97, 103). This is in agreement with Appiah (2005: 112), who stresses that what is called 'a nation,' 'a people' or 'a culture' is collective identities that are constructed in the antagonism between groups. It is scripts or narratives that may function as instruments of stigmatisation and subordination, but that may also be used to mobilise and empower people. The Hindu, for example,

> ... became Hindu only when the British created the class in the early nineteenth century, to take in those who were not members of the famous monotheisms and the identity gained salience only in opposition to South Asian Muslims (Appiah, 2005: 64).

In the second place Waldron holds that multiculturalists too much restrict and encapsulate individual agency. His argument in this regard is quite complex, because he also acknowledges that people are formed by attachments and involvements, culture and community.

> If there is liberal autonomy... it is choice running rampant, and pluralism internalised from the relations 'between' individuals to the chaotic coexistence of projects, pursuits, ideas, images, and snatches of culture 'within' an individual (Waldron, 1995: 94).

As an internally divided whole the self time and again must compromise between a variety of (often conflicting) commitments and allegiances (Waldron, 1995: 110-2). Appiah, however, is more straightforward when it comes to individual agency. He defends the position that cultural diversity is an important good, but only in the service of individual autonomy, because the more options people may choose from, the more resources they have to build their individual life plan. 'Cultures' and 'nations' matter, but only because autonomous agents care about them. This also involves that the interest of people in culture is not fundamentally different from for example their interest in football or opera. All those project-dependent values are arbitrary in the root sense of that term, namely that they 'depend upon will or pleasure' (Appiah, 2005: 244-5).

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1. I borrowed these terms from Zygmunt Bauman (2002).

The cosmopolitan misrecognition of multiculturalist thinking

As I have demonstrated thus far, cosmopolitan thinkers argue that the multi-culturalist concept of culture is not valid because it neglects the heterogeneity and transformability of culture as well as the freedom of choice of individual agents. Therefore the strive for an intercultural development is in their view not only unrealistic, it is also not desirable because it restricts rather than supports the empowerment of people. However, let us take a closer look at the position of multiculturalism and the cosmopolitan critique. Is this critique really convincing?

Cosmopolitan thinkers claim that multiculturalism does not really take into account the fact that in our global era people often share overlapping and interconnecting loyalties which cannot easily be framed in simple dichotomies such as 'inside' and 'outside', 'us' and 'them' (Beck, 2002: 71-4). Even more problematic in their view is that multiculturalism tends to ignore the political arena in which cultures are produced and reproduced. 'Culture' is not so much a category of analysis, as well as a category of practice, an instrument to mobilise people and distinguish oneself from others, especially powerful in the hands of the cultural elite (Brubaker, 1996: 15-6).

Although I agree with the cosmopolitan concern for agency and historical situatedness, I think that Waldron and Appiah are fighting a straw man when they picture the multiculturalist approach as static and without room for individual agency. Let me first start with the cosmopolitan objection that the idea of an encompassing culture ignores that culture is changing all the time and that people develop their cultural identities in interaction with and opposition to the identities of others. With regard to the work of Kymlicka such an objection is out of place. Kymlicka is fully aware that his concept of what he calls a societal culture presupposes the framework of a modern society. The reformulation of their identity in terms of a minority culture is the only possibility for indigenous groups to survive and develop in the modern world (Kymlicka, 1995: 76 ff). It is, with other words, a defensive response of cultural minorities to the nation building of majority cultures. It is meant to empower and mobilise people, not to isolate them from other groups (Kymlicka, 2001: 2).

In the view of Kymlicka (1995: 83), cultures are important because they provide a context of choice that is a shared vocabulary for people to articulate their decisions and make intelligent judgements. It is important to notice that this argument for cultural recognition depends on the instrumental value of culture for individual well-being and not on the value that cultures may have apart from the appreciation and interests of individual members. In this way Kymlicka fully remains within the contours of liberal thinking. He cannot be blamed for seeking cultural preservation for its own sake.[2] The freedom which liberals demand for individuals is, according to Kymlicka (1995: 90-1),

> ... not primarily the freedom to go beyond one's language and history, but rather the freedom to move around within one's societal culture, to distance oneself from particular cultural roles, to choose which features of the culture are most worth developing, and which are without value.

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2.   This is what Waldron actually did. See Waldron (1995: 110-2).

This, however, is a nuance that is overlooked in most cosmopolitan critiques on multi-culturalism.

Kymlicka thus holds that cultures may transform and that individual choice is more important than the survival of collective identities. He cannot be blamed for having a static and deterministic view on culture. In that respect he differs from Charles Taylor, another multiculturalist thinker. Taylor draws his inspiration not from liberalist but from communitarist thinking. First of all, Taylor (1994: 40-1) holds that cultural traditions have a value of their own which must be protected in order to survive. He argues that one must practice the principle of hermeneutical generosity when it comes to cultural differences that is that one must start from the presumption that cultures are of equal worth (Taylor, 1994: 66). This goes further than the instrumental approach of Kymlicka in which cultures are merely a context of choice.

But cosmopolitan thinkers have to admit that also in Taylor (1991) culture is always in flux and that communication and interaction between cultures cannot go without change. In the dialogue between cultures, according to Taylor people develop a broader horizon, within which the oppositions and contrasts between cultures are articulated in a new way and in which not only the image of the other but also one's sense of selfhood may be radically changed. Secondly, Taylor (1991: 39) holds that individual agency cannot exist without a moral horizon within which self-interpretation and personal autonomy takes shape.

> Even the sense that the significance of my life comes from its being chosen... depends on the understanding that 'independent of my will' there is something noble, courageous, and hence significant in giving shape to my own life.

Taylor cannot be blamed for ignoring human agency. On the contrary, by the recognition of culture Taylor wants to rescue human agency from simplistic models of radical choice. Without a horizon of evaluation, Taylor argues, people are only able to distinguish between various preferences and not between what is higher or lower, right or wrong. That turns them into wantons who cannot distinguish between their primary impulses and the person they really want to be, that is the story they want to tell about their own life history (Taylor, 1985).

An advantage of the approach of Taylor in regard to the approaches of the cosmopolitan thinkers, and even in regard to Kymlicka, is that he is very much aware of the vulnerability of human beings and the harm that can be inflicted upon them by cultural imperialism and misrecognition of others. Kymlicka (1995: 89) holds that cultures are important for individuals because membership of those cultures has a high social profile and functions as a secure focus of identification because it is based on belonging and not accomplishment. If a culture is in decay and not generally respected, also the dignity and self-respect of its members will be threatened. But Taylor (1994: 25) goes a step further. He examines culture as something that is internalised in the life histories of people. From such an internal perspective it becomes understandable why people develop all kinds of abnormal behaviour when they suffer cultural imperialism. There is something at stake when people loose their identity: their core self. And this brings serious damage, distortion and psychic harm in the life of people that they carry with them their whole lifetime. Ignoring their culture, one

may say, is ignoring their *raison d'être,* contesting their reason of existence.[3] From such a perspective there is only a gradual difference between ignoring someone's cultural identity and declaring someone dead.

The reality of culture

To summarise, I conclude that the cosmopolitan critique on multiculturalism is less convincing than on the face of it one is ready to believe. It is fighting a straw man and not multiculturalism as such. Let us turn our critical attention now to the cosmopolitan position itself. In this and the following section I will put forward two main points of critique. First I will argue that cosmopolitanism ignores the way in which in ordinary life people speak about culture. And secondly I will hold that cosmopolitan thinking can only account for synchronic and not for diachronic variations in culture.

My first objection against the cosmopolitan approach is thus that it does not do justice to the common use of 'culture' in ordinary language. Of course, one must admit that common sense not automatically gives us a correct description of humans as culture producing beings (Appiah, 2005: 139). Common sense and ordinary language may be mistaken. But that does not mean that one should not take them seriously as important sources of knowledge regarding our human condition. On the contrary, they may incorporate collective experiences that endured time.

First of all, the term 'culture' is used quite often in ordinary language and therefore already is of practical significance. People do things with words, and that means that concepts and representations indeed matter. Illusionary or not, they shape social reality. The whole idea that globalisation simply makes the concept of culture as an integral and encompassing whole, obsolete, is rather controversial, also in the social sciences. Craig Calhoun (2007: 14-7) convincingly argues for example that theories regarding globalisation rest on a strong European bias. Take post-apartheid South Africa. Never has there been so much urgency for the people of this country to stress the collective national culture and heritage as just at this historical moment. One simply needs a collective imaginary to bind the various population groups together. It is especially because of that, that the 2010 FIFA World Cup is such an important milestone in the history of the country. Usually cosmopolitan thinkers argue that culture as an encompassing whole limits people in their freedom of movement. And, indeed, culture may function in such a way: as a hindrance block and not as means of emancipation. But there is also another side to the coin: by defining a group by certain characteristics and giving it a certain identity, one also gives such a group a voice, brings it into existence. Giving the members of the group a sense of belonging may help to protect them, inspire them and reach a higher level of self-determination (Calhoun, 2007: 9, 20).

Secondly, it is not true that in ordinary language culture is reified as a timeless essence. The common discourse on culture is more fluid and complex than the cosmopolitan thinkers with their essentialist/anti-essentialist dichotomy are ready to admit. A more fruitful way to understand culture is given by Modood (2007: 97) when he argues that people use this term to refer to the coherence of a group. What holds the group together is neither a fiction

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3.   I make use here of the terminology of Pierre Bourdieu, whose concept of 'habitus' is akin to Charles Taylor's concept of embodiment.

nor an essence, but something that is more akin to a family resemblance: people sharing several characteristics in a rather unstructured and loose way. Besides that, change not only implies flux and fluidity, but also continuity. There has to be something that is changing, and there are also usually different levels of change, some deeper and with more coherence and continuity than others. And it is exactly this coherence and continuity which gives sense to the idea of culture as an encompassing whole. The trouble with the cosmopolitan rejection of culture and continuity is that it does not account for the inertia of human culture; changes do not occur overnight.

Thus far my first objection against cosmopolitan thinkers is that they present a picture of the world as a global space that does not automatically mirror the use of culture in ordinary language. But let me be careful at this point and not make a 'straw man' argument myself. Cosmopolitan thinkers do not promote a disengaged self. Also according to Waldron the self is always situated in a socio-cultural setting. The same is true for Appiah, who explicitly rejects a 'ruthless cosmopolitanism', without local commitments. One must live ones life as a citizen of the world, but at the same time one is fully situated. It is, according to Appiah, our vocation as citizens to leave the local place where one lives better than one found it. Although citizenship is not a matter of belonging to a community, it is at least a matter of taking responsibility with that community for its destiny (Appiah, 2005: 213). It is telling, however, that Waldron (1995: 12) refers to typical intellectual groups, similar to the international community of scholars, the artistic community, the human rights movement, and the feminist movement as examples of "the real communities to which many of us owe our allegiance and in which we pursue our values and live large parts of our life". But who in this regard are the 'many of us'? Is this not merely a small elite of frequent flyers, who have their own cosmopolitan culture? The same question, of course, may be asked to Appiah, who time and again takes his own life as an example, being the son of an Ashanti man who married an English woman and was a member of the London Inn of Courts.

For sure the cosmopolitan loyalties and commitments are local in character. But the real issue is whether they are representative for the population at large. It is the cultural elite as well as the new class of knowledge workers who take advantage of cultural change and, purposefully or not, fuels the constructivist proliferation of cultural repertoires and lifestyles (Bourdieu, 1979: 176 ff). At the other end of the spectrum, however, more marginalised groups and groups that are afraid that they are loosing ground, such as the old bourgeoisie, develop a traditionalism of despair: they stick to their culture and try to preserve it in a static manner, although they know that it is already dead (Bourdieu and Sayad, 1964: 19-22). Historical transformation and the hybridisation of culture not only disorients, but also disempowers them (Calhoun 2007: 23).

The upsurge of new right-wing movements in Western Europe is not so much a resurgence of fascism as well as a symptom that people in our contemporary global age fear to loose the control over their lives and therefore search for a conveniently arranged and stable socio-cultural environment. The ideology of those right-wing movements, Pierre Ignazi (2003: 201) holds, is the exact mirror image of a cosmopolitan view in which self-affirmation, cultural heteronomy and individual lifestyles are championed. The same can be said of the upsurge of religious terrorist groups and of other more peaceful minority groups in our global age. One cannot simply neutralise the feelings of discomfort by ignoring them or by putting them aside as reactionary forces. The interest in cultural rights and indigenous

knowledge, especially in the South, must not be considered an expression of nostalgia, but as ways in which minority groups reshape the world around them and develop their own frameworks of orientation in order to get a grip on the world and develop a sense dignity and self-determination.

Culture as a shared history

Let us now turn to my second objection to cosmopolitanism that has to do with the way in which socio-cultural situatedness is understood from a cosmopolitan perspective. It is true that in the social sciences, and especially in cultural anthropology, cultural pluralism has lost its appeal. That does not mean, however, that the idea of culture as an integral and encompassing whole is out-dated or useless. Such an idea of culture, on the contrary, discloses a reality about our human existence which is often ignored in recent social and ethnographic research, namely that human agency is always embodied, not only in the sense that it is positioned in a pre-given symbolic field and in this way is socially and culturally constructed, but also in the sense that it is a *corps vécu,* a way in which people experience the world from within and give meaning to the world (Ihde, 2002: 69-70). You inherit a culture that is shaped in a specific historical situation. That is your point of departure, where you are coming from. It not only sets limits to what you may reach, but it also is a necessary condition for entering the social field and give shape to reality.

When one reasons, however, solely from a constructivist perspective, as most cosmopolitan thinkers do, the human person only appears either as the contingent cause of cultural change or as the effect of historical causality. One takes a third-person perspective and analyses how the identity of people is shaped by a specific historical situation. What is lacking in cosmopolitan thinking, in other words, is a human subject that orients itself in the world as a reflective person who interprets her own life history and the meaning of life in dialogue with other people. It cannot adequately detect why it is so important for people to live a cultural tradition from within, a tradition to which they belong to and adhere to.

From a hermeneutical perspective one not only is better equipped to understand human agency, but also to capture what it means to stand in a tradition and share a common history. Such a sense of cultural situatedness is more historical and dynamic than that of a cosmopolitan thinker such as Appiah (2005: 111) who only describes cultural repertoires as limits or parameters to live a successful life and therefore as simultaneous choices next to each other. Cultural vocabularies for Appiah are not more than the materials that history has given to us in order to build our own life, here and now. They do not stand in an historical or diachronic sequence in which both continuity and change takes place.

That does not mean, however, that a hermeneutical point of view in which culture is considered a shared history, suffices to understand the complexity of ordinary life. I argued already that Kymlicka and Taylor in one way or another have to take account for the way in which people construct their own life. They cannot ignore that culture also functions as a category of practice, that is as a political concept that includes and excludes people and thereby often create boundaries of a dubious kind. To combine both approaches of historical situatedness, Pierre Bourdieu's notion of habitus may be helpful. Bourdieu (2000: 210) describes habitus as a framework of understanding, behaving and judging, which

people inherit from their parental milieu and use as a means to order their present life and shape their future. It connects past, present and future: it

> ... is that presence of the past in the present which makes possible the presence in the present of the forth-coming.

Habitus, one may say, involves a sense of belonging. It cannot be changed by a simple effort of will. When we fight our inherited inclinations, convictions and expectations we have to fight against our whole body, our deepest existential way of being (Bourdieu, 2000: 179-80).

But the habitus, and that is the other side of the coin, may also be a source of creativity and change. People have to take a position within a social world or habitat, by constructing their own identity. They not only incorporate a certain history, but are also confronted with a specific socio-cultural configuration to which they have to relate themselves in one way or another. Because of the past, inherited in their body, actors usually know by custom and intuition how to behave in the social world, and what to expect from the future. This is especially the case as both habitus and field are formed in the same historical situation. There are, however, also situations in which habitus and habitat do not coincide because of migration to a foreign country or because the living environment itself radically changes, due to external political forces or migration of others (Bourdieu, 2000: 156-63). Our current global age is full of them. That also declares the actual interest in hybrid, heterogeneous and fragmented identities.

Our global society is a society of permanent innovation which means that people have to reinvent their identity time and again, and that in a world in which also a huge variety of cultural repertoires is available. But I am sure that when one looks on a level deeper one not only sees fragmentation and change, but also continuity of modern imperialism in which individual autonomy is the driving force. The cosmopolitan self, constructing its own cultural identity, is merely another figure in the long history of Western thought and as such not as generally present around the globe as social constructivists assume. It is really astonishing to see how many constructivist thinkers are eager to deconstruct culture as an integral and encompassing whole, but at the same time do not deconstruct and objectify their own position as post-industrial or post-Cold War thinkers who proclaim the end of ideology and promote an idea of culture as constructed meaning (Scott, 2003). It is not coincidental that Appiah time and again puts himself into the tradition of John Stuart Mill, one of the founding fathers of modernity. Cosmopolitanism is part of a cultural tradition itself, and the simple fact that a Ghanaian such as Appiah puts himself into that tradition only marks the success of this way of thinking. Culture does not presuppose the construction of identities, but just the opposite way around: the construction of identities presupposes culture.

Conclusion

In this chapter I have discussed the cosmopolitan critique on multiculturalism, followed by my critique on cosmopolitanism in general. Although I agree with certain points of critique of cosmopolitanism my own position is closer to that of multiculturalism, especially as exposed by Taylor. What does this imply for the idea of intercultural development, thus for the situation, locally and globally, in which different cultural worlds interact and have to search a common path in the future?

I first of all discovered that the idea of culture, as an integral and encompassing whole does not exclude the openness and transformability of culture. I also established that the strong emphasis on the construction of identities betrays a modern and intellectualist bias that is not common sense at all or in the interest of all people. Not less important is the conclusion that people are situated in two-way; they are situated in the sense that they live in a specific historical context that shapes their identity and provide them with a repertoire of cultural options. That is the truth-value of cosmopolitan reason: Culture is not only something that you inherit and to which you belong, but also something that is constructed in a specific historical setting. Especially in our current global age this is a fruitful way to approach the encounter between cultures. At the same time, however, human agents are also embodied selves that are shaped by a shared history that gives them the opportunity to orient themselves in the world. You cannot choose between a variety of options without having a sense of yourself as part of a larger cultural project that gives meaning to what you are doing. Cultures are integral wholes, historical patterns that connect past, present and future. They represent a continuity that preserves its uniqueness by adapting to new situations time and again.

What does this all mean for the idea of intercultural development? First of all the understanding of culture as a shared history means that intercultural development is important, because it respects cultural diversity as much as possible and helps people to empower themselves and gain a sense of dignity and self-determination. Secondly the cosmopolitan critique on multiculturalism makes us aware of the complex global situation in which we are involved. In order to preserve their unique heritage cultural traditions have to reinvent themselves time and again. That, one way or another, cannot go without a certain adaptation to the current socio-constructivist outlook of the world.

We do not have to worry that indigenous cultures will change, the only worry we must have is that people are sufficiently equipped to incorporate new ideas and technologies within the contours of their own cultural framework. Only in this way indigenous groups may become agents of change that have a dignity of their own and are not merely playthings of history. And the opposite is also true. In the interaction with other cultures, modern Western culture may become aware again of its own unique heritage and probably also of its specific vocation for the world.

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The Inclusion of 'Culture and Religion' in Development: Beyond the Technical-Instrumental and Participative-Communicative Approach

Sytse Strijbos

Introduction

In recent years a discussion on the role of 'culture and religion' in development cooperation became prominent, in academic circles as well as among Northern development agencies.[1] A columnist of *The Times*, Matthew Parris, who confessed to be an atheist, wrote in December 2008 a provocative article on the role of religion in development followed by a response of 408 comments. He summarises his message under the heading, "As an atheist, I truly believe Africa needs God", and concludes with the challenging statement "Removing Christian evangelism from the African equation may leave the continent at the mercy of a malign fusion of Nike, the witch doctor, the mobile phone and the machete."[2] Investigating the role of religion in Africa, Ellis and Ter Haar (2004) argue convincingly that the idea that development is a technical affair has shown to be incorrect. The political scientist Haynes (2007) observes that after World War II most Western governments and development agencies saw religion as part of the problem, as a stumbling block that must be eliminated for the development of people and cultures. The dominating notion of development was thus closely tied to a process of secularisation and modernisation. It was thought that modernisation and technological advancement brings inevitable secularisation and that religion would thin out or gradually die out altogether. This secularisation theory is now being scrapped and radically rethought by one of its main proponents, Peter Berger.[3] Partly also as a result of the failure of many 'secular', so-called purely technical development

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1. See the establishment of a Knowledge Centre on Religion and Development in the Netherlands, http://www.religion-and-development.nl.

2. See http://www.timesonline.co.uk/tol/comment/columnists/matthew_parris/article5400568.ece.

3. See transcript of his address at the Pew Forum Faith Angle Conference, *Religion in a Globalizing World*. December 4, 2006, Key West, Florida, http://pewforum.org/events/index.php?EventID=136.

trajectories that tried to exclude, consciously or unconsciously, the spiritual dimension of life, a shift has now been made aiming to include culture and religion, i.e. to bring together the spheres of religion and human development.

Although the importance of religion and the potential of faith-based organisations have been acknowledged in recent years and became even one of the most hotly debated issues in development circles, at the conceptual level mainstream development thinking has still remained secular. Due to a narrow, functionalist understanding of religion, defining religion by what it does by formal religious organisations (e.g. churches) in society, it is unrecognised that religion in a broader sense, namely as a world-and-life view, is merely a part of human life and also affects our theoretical concepts and approaches of development. The indicated shortcomings of secular development programmes have thus not to be understood as a consequence of the absence of any spiritual-intellectual view of the world. Not the absence but the presence and uncritical acceptance of specific religious roots confront us with the failures of Western technical development programmes. While the significance of religion and faith-based organisations in the context of development became a matter of discussion in recent years, attention for the neglected role of the cultural factor and spirituality has already been raised in the development literature in the 1980s (see Verhelst, 1986). This essay takes the concepts of 'culture' and 'religion' together by speaking about 'culture and religion', presuming that all cultures are guided by a dominant religion or worldview and vice versa religion is not culture-free.[4] The problem is thus how should we include 'culture and religion' in development thinking?

In this contribution, it is my aim, to clarify that much of our development language is what one might call implicitly religious, that is to say based on an understanding of the world telling us who we are and prescribing what we should do. First, I will discuss respectively what I have called the technical-instrumental approach and the participative-communicative approach as the two dominating strands in development thinking. In both approaches 'conceptual- theoretical thinking' and 'religion' are regarded as emphatically separate concerns. Next, I will point out an alternative, what I called the intercultural-disclosive approach, an approach that seeks to include the dimension of 'culture and religion' also at the conceptual level in development thinking.[5] Concluding my contribution, I will make some final notes on the implications of the latter approach for development practice at the grass-roots level.

Technical-instrumental approach

The technical-instrumental approach and related planning techniques and practices have been central to development since its inception when Harry S. Truman, in his inauguration

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4. The relationship between 'culture' and 'religion' is complex and will be a topic for further investigation. Ratzinger (2004: 64) offers some important considerations on this broad theme. However, I disagree with this author that modern technical civilisation is an exception and is religion-free. Characteristic for the modern world is in my opinion that religion in the shape of a scientific-technical worldview has went unnoticed and is therefore able to dominate more than any other worldview in history all societies and cultures. I have argued for this position in e.g. Strijbos (1988).

5. These three approaches in development correspond with various streams in systems management as discussed in Strijbos (2006).

speech on 20 January 1949, for the first time in history declared the countries of the Southern hemisphere as 'underdeveloped'. A concise and critical exposition of this approach has been given by Escobar (1992: 132), who noticed that

> ... planning conceptions and routines introduced in the Third World (...) are not neutral frameworks through which reality innocently shows itself. They bear the marks of the history and culture that produced them.

The conception of planning is inextricably linked to the rise of Western modernity and embodies the optimistic belief that social change can be engineered and directed, produced at human will. This does not imply that there have not been differences, even strong disagreements, among advocates of the planning approach. Illustrative is the recent controversy between two leading development economists, Jeffrey D. Sachs from Columbia University and William Easterly from New York University. Focussing on the underpinnings of their thinking and conceptual framework I will point out in the following section that this debate is merely a quarrel among twin brothers.

Sachs

Let me first turn to the writings of Sachs who as a special advisor of Kofi Annan, the previous United Nations Secretary-General, acted as one of the architects of the Millennium Development Goals (MDGs) that were adopted in the year 2000. These comprise a set of eight interrelated goals, which ranks as number one to eradicate extreme poverty and hunger in the world by the year 2015. Sachs became widely renown by his book *The End of Poverty: Economic Possibilities for Our Time* (2005) in which he explains why, over the past two hundred years, wealth has diverged across the planet and why the poorest nations have so far been unable to improve their lot. And in a recent sequel study, *Common Wealth: Economics for a Crowded Planet* (2008), he worked out his view on the end of poverty within the broader context of securing the sustainability of the environment and the stabilisation of the world's population in the coming decades.

Both publications are very insightful for gaining a better understanding of the intellectual-spiritual background of the MDGs. Inspired by the Enlightenment vision and dreams of Jefferson and other founders of the American republic, and of Smith, Kant and Condorcet, Sachs (2005, ch. 18) boldly defines our generation's agenda in broad terms, putting much emphasis on the importance of science and technology in closing the gap between the haves and the have-nots in our globalising world. Arguing that we possess today the technology and the science-based knowledge to organise production that could enable us to overcome the obstacles to ending poverty, he notes that we have not succeeded to put that potential in use. For example, many of the killer diseases in developing countries can be treated effectively with drugs developed in the rich countries, but the patents make them scarce and too expensive for the poor. Although we have failed so far, it has never been more possible to achieve freedom from want than nowadays. Referring to the progress of science and technology, particularly in the medical sector, Sachs (2005, ch. 4) argues that development economy has important lessons to learn from that field, more in particular from the field of clinical medicine. In some ways development economics are still similar to eighteenth century medicine. We need in his view a new method for development economics, one that he calls 'clinical economics', underscoring the similarities with modern clinical medicine.

Analogous to the scientific approach of a medical doctor in treating a particular patient, combining general principles with the details of a specific setting, development economists have to learn to think like clinicians.

First, they have to learn that human societies are complex systems, just like the human body, and thus in need to find a proper balance between various sub-systems. The failure of one sub-system can destroy the entire economy of a society. Second, development practitioners have to learn the clinical art of a thorough differential diagnosis, followed by an appropriate treatment regimen. Sachs (2005: 84) suggests a detailed checklist that should be part of the clinical procedure for mapping poverty and identifying key-risk factors of an impoverished country. Third, clinical economics must learn to think in 'family' terms, noting the interdependencies between individual countries. Fourth, specific development objectives have to be set and good practice requires monitoring and evaluation. If there is no evidence for improvement there must be readiness to shift ground. Fifth, the development community is a need for ethical and professional standards. As a profession it has to set strong norms, ethics and a code of conduct to ensure the highest quality of development practice in the interest of the poor.

Sachs criticises strongly – and rightly so – the structural adjustment agenda implemented by the IMF and World Bank in developing countries in the past decades. The failed structural adjustment policies convey a simplistic message to the poor countries: poverty is your own fault, become like us in good governance, adopting modern technology, etc. and you too will enjoy the fruits of the free market led by the private sector.[6] A clinical economics approach and related MDGs point the way to a better strategy, according to Sachs. The MDGs state concrete goals for which rich countries as well as the poor are responsible for their achievement. They are not only benchmarks for aid but enable to assess the role and advice of the international agencies as well.

Elsewhere I have pointed out my appreciation concerning Sachs's innovating idea of clinical economics and his understanding of the need for a true development profession (Strijbos 2008). My critique is however that his proposal is not radical enough for modernising development practice and has missed an important lesson of clinical medicine. As I argued, Sachs adheres to the expert-driven, classical professional model. During the 1970s a recalibration has taken place of the medical relationship in which the position and rights of the patient has been strengthened by the adoption of various laws and regulations. For the clinical expert this implies that he must combine his science-based perspective on the situation with the insights and preferences of the party seeking assistance, while providing the needed information regarding possible choices that could be made and the involved risks. In a similar way also in the approach of clinical economics the perspectives of the expert and the community have to be brought together. A specific feature of development practice is that the two parties that meet each other have usually different cultural backgrounds. In this encounter the expert must acquaint himself thoroughly with the cultural and religious values of the community and should be aware at the same time of

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6.   The paradigm of modernisation theory is the underlying view of the structural adjustment agenda. The thrust of modernisation theory is that the first world has only limited responsibility for the underdevelopment of the third world as the third world is largely responsible for its own poverty. See Isbister (2006).

the underlying values that are entailed in his scientific approach of the problem situation. My point now is that Sachs lacks a good understanding of the intercultural encounter that is typical for development practice. In fact, clinical economics and the MDGs following from that still convey, at least partly, the message of the structural adjustment agenda that he is opposing: become like us, accept the goal-setting mindset of clinical economics and the values that are implicit in it. Just on this matter of goal-setting and associated planning ideas, William Easterly opened an important debate with Sachs. Let us turn our attention now to Sachs's opponent.

Easterly

The year after Sachs has stirred up the debate in the international world on development, and aroused new optimism that effective policies could be set to end extreme poverty in the world, another leading development economist, William Easterly, who worked for sixteen years as a World Bank staffer, entered the international stage conveying exactly the opposite message. In his book *The White Man's Burden: Why the West's Efforts to Aid the Rest have Done so Much Ill and So Little Good* (2006a) and in a variety of subsequent articles and an edited volume *Reinventing Foreign Aid* (2008), Easterly offers a strong critique on the planning ideas of Sachs for foreign aid and their incarnation in the United Nations Millennium Development Goals.[7] And in his argument he does not shy away to be 'frankly polemical', criticising what he calls 'developmentalism' or 'the ideology of development' (Easterly, 2008: 5; 2007). While communism, fascism, and socialism have miserably failed and come to an end in the last century, a new collectivist utopian fantasy has risen to take their place. Although less powerful and less coercive, the half-century old ideology of developmentalism, promising a solution to all the world's ills, is almost as deadly as the tired ideologies of the past. It shares common characteristics with the old ideologies suggesting the one correct answer of the collectivist approach, made up by the intelligentsia and experts at the IMF-World Bank and United Nations, ignoring the freedom of individuals, communities and societies to choose their destinies (Easterly, 2006b).

Easterly (2006a: ch. 1) frames a bit simplistic his debate with Sachs as one of 'Planners versus Searchers'. What are some of the characteristics of planners and searchers? In foreign aid, planners similar to Sachs set out a predetermined big goal, such as ending world poverty, to be solved. They advocate a comprehensive big plan to reach the big goal, believing that they have the knowledge and the means to end world poverty as just a technical engineering problem, and throw a lot of resources and a huge administrative apparatus at achieving the big goal. While planners believe that outsiders have the expertise to find solutions, searchers are more humble in relation to how little they know about other people's problems. Searchers believe that only insiders are in the position to find home grown solutions that fit to the local situation. And the other way around outsiders have more likely a planner's mentality, while insiders are forced by their fellow insiders to be searchers. Planners have a top-down approach not connected to the reality at the bottom; searchers find out what the reality is at the bottom. Feedback and accountability are two key features distinguishing the planner and the searcher. Outsiders do not have much accountability and

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7. See the United Nations website <http://www.un.org/millenniumgoals/>.

so they are planners; in contrast, insiders have more feedback from the people, have usually more accountability and adopt more likely the searchers mindset. Irritating, though usually unconsciously, Western planners are very patronising in their approach. They launch big plans to improve the world, while searchers gradually figure out

> … how the poor can give 'more' feedback to 'more' accountable agents on what 'they' know and what 'they' most want and need.

Giving a wink to Sachs's comparison with clinical medicine, Easterly (2006a: 30) notes that there is much room for improvement just by having the West to follow the rule "First do no harm", which is also the first principle of medical practice.

It is a misunderstanding, according to Easterly (2006a: 18), that the divide between planners and searchers in Western assistance equals to Left versus Right in the political arena. In the rich countries the fondness of big plans is widespread and receives support at both sides of the political spectrum.

> The Left likes the idea of big state-led effort to fight global poverty. The Right likes the idea of benevolent imperialism to spread Western capitalism and subdue opposition to the West. So (…) we get a bizarre conjuncture of foreign aid on the left and military interventions on the right (although each might disavow the other).

Likewise, the opponents of the big plans also come from dissidents on both sides. They share the searchers viewpoint that neither big plans in foreign aid (from the left) nor in foreign military intervention (from the right) really help poor people and will improve their lives. The debate between planners and searchers in foreign aid has thus much deeper roots than the traditional political bipolarity in our societies. It is in Sachs's (2006a: 14) view the youngest offspring from a long-standing philosophical divide in Western intellectual history concerning social change, which is described by the philosopher Karl Popper in his book, *The Poverty of Historicism* (1957: 61) as 'utopian social engineering' versus 'piecemeal democratic reform':

> The piecemeal engineer knows, like Socrates, how little he knows. He knows that we can learn only from our mistakes. Accordingly, he will make his way, step by step, carefully comparing the results expected with the results achieved, and always on the look-out for the unavoidable unwanted consequences of every reform; and he will avoid undertaking reforms of a complexity and scope which makes it impossible for him to disentangle causes and effects, and to know what he is really doing(…) Holistic or utopian social engineering, as opposed to piecemeal social engineering (…) aims at remodelling the 'whole of society' in accordance with a definite plan or blueprint.

What does the two contrasting positions of Easterly and Sachs mean for the dimension of 'culture and religion' in development thinking and practice? It is notable that neither Sachs nor Easterly makes any reference to the current debate on religion and development. Both seem to take for granted the religious roots of their thinking in Western Enlightenment tradition. Sachs (2005: 352) even rejects any critique to that legacy and expresses a firm Enlightenment commitment. Although I have some sympathy with Easterly's plea for a searchers mentality, based on Popper's 'critical rationalism', and agree with Sachs that development practice can learn a lot from medical practice, I differ with both on the

uncritical acceptance of Western Enlightenment ideas and the pretended autonomy of human reason. They are apparently not aware that their differing views on planning reflect basically the same self-understanding of the human person, who is striving to improve human welfare by controlling the world with his goal-oriented mindset.

Participative-communicative approach

A critique that has been raised with regard to the technical-instrumental approach is that it is expert-driven and as a consequence is inherently paternalistic. Faced with the failures of development the ideal of participation emerged from the conviction that development projects, of which the majority is usually initiated and designed by outsiders, stand a better chance of succeeding if the people in local communities have a clear say in making and implementing decisions that affect their own living conditions and welfare. Community participation became a catchphrase in the international development literature in the 1980s (see Midgley, Hall, Hardiman and Narine, 1986, and Rahnema 1992). The fundamental issue underlying this approach is the shaping of a more balanced and inclusive relationship between the professional and the ordinary people. What should be the role of both parties in that relationship? Struggling to acquire a more precise understanding of what is meant by the concept 'community participation' and how it can be applied in practice, Botes and Van Rensburg (2000) investigated its dynamics, particularly in the South African context. In their analysis the authors arrived at a normative framework consisting of 'twelve commandments' that could guarantee the promotion of development in a participatory manner.

Most of these 'twelve commandments' aim to demarcate the role of the expert and support the role of the community in the participatory process. Botes and Van Rensburg (2000: 53) stress that development experts have to demonstrate an awareness of their status as outsiders (first of the twelve commandments) however this does not imply that in their view these experts are on value-free terrain. They even stipulate (sixth commandment) that whoever wants to get involved in participatory development should "believe in the spirit of *ubuntu*", a fundamental (South) African concept encompassing a range of key values such as solidarity, conformity, compassion, respect, human dignity and collective unity. I doubt whether it is demanded that professional experts should 'believe' in the spirit of *ubuntu*, and thus should accept all its normative implications. The good thing here is that the professional is sensitised for cultural issues. Putting it to the extreme, however, it seems that professionals are still regarded as neutral technical experts, as just development facilitators, who have to tune their assistance to the culture of the people without questioning.

Criticising the technical-instrumental approach as paternalistic and therefore ineffective, it seems that in the participatory view the pendulum swings to the other side, believing that development should be compatible with the culture of a community (see Dere, 1997: 80). I fear that such a view on community participation overlooks that a process of intercultural encounter is necessarily entailed in the cooperative efforts of the experts and the ordinary people. And such an encounter requires respect for the other party, but at the same time accommodates with a critical dialogue between the parties that are involved regarding their idea of development and the underlying cultural and religious values. The question is thus: How is such a critical communication possible between different cultural traditions? This key question for development is also central in the current debate on secularisation and the resurgence of religion in our globalising world. Of particular interest for my argument here

is Habermas' thought on religion and the dialogue between Habermas and Ratzinger, the current Pope Benedict XVI, on the role of reason and religion in today's world.

Habermas and Ratzinger

Distinguishing between 'life-world' and 'system' Habermas has provided in his book, *The Theory of Communicative Action* (1984) an extensive diagnosis of the perils of contemporary society. While the system is the domain where humans operate on the basis of technical goal-rationality, communicative rationality is typical for the human life-world. Ideally the latter type of rationality, enabling a discourse free of domination, has priority over and serves to guide the system. However, in his view, capitalist modernisation upsets the delicate balance between these two domains. Gradually directives that flow from the system erode the integrity of the life-world. Concerns that derive from goal-rationality such as profitability, efficiency, success, and economic growth, displace interests related to the life-world, such as community values and ethical and normative matters. Although Habermas criticises at length the domination of a narrow, technical goal-rationality, the problem with communicative rationality is in my view that it still sticks to the pretended autonomy of human reason and the split between reason and religion of the Enlightenment, just allowing a functional role for religion in society.

Although Habermas' writings in recent years do not withdraw from his earlier functionalist view of the religion's role in society, he acknowledges that religion does offer something more that rational thinking, philosophy in modernity, cannot say. In a volume of essays on *Religion and Rationality* (2002), he points out in several places that it is the theodicy that religion offers as a source of explanation and hope that philosophy cannot offer. Confronted with the suffering in life, often horribly, people turn desperate to religion and find hope and comfort in its teachings that God finds a way for all the suffering of individuals and communities. Human reason, thus Habermas, is not able to replace religion in this respect. Furthermore he concedes that the Judeo-Christian tradition has played an important role in Western thought. Secularised modernity of the Western world owes the ideals of individualism, freedom, and justice to Christianity. And vice versa Christianity owes to modernity to take cultural diversity into serious account.

This theme of Christianity and modernity, of reason and religion in a secular world, has also been elaborated by Ratzinger in his dialogue with Habermas. Lending great urgency to the question how various cultures that encounter one another can find ethical basis to guide their relationship along the right path, Ratzinger (2006a: 56) notes:

> In the process of encounter and mutual penetration of cultures, ethical certainties that had hitherto provided solid foundations have largely disintegrated. The question of what the good is (…) goes largely unanswered. It seems to me obvious that science as such cannot give birth to such an ethos (…) On the other hand, it is equally indisputable that the fundamental transformation of the understanding of the world and of man that has come about thanks to the growth in scientific knowledge has played a major role in the collapse of the old moral certainties.

Not only the rich West but also the other great cultural spheres in the world are marked by profound tensions. That the encounter of the West with other cultures often led to disastrous results is a matter on which Ratzinger also touches in his magnificent theological

study on *Jesus of Nazareth* (2007). Interpreting the first temptation story of Jesus by the devil in the desert (Matt. 4:3), he argues that development programmes of the past decades in which God is regarded as a secondary matter, programmes that has forgotten that "Man does not live by bread alone", has turned out into a ruin and a destruction even of material goods themselves. Ratzinger (2007: 32-33) concludes:

> The aid offered by the West to developing countries has been purely technically and materially based, and not only has left God out of the picture, but has driven men away from God (…) It has thrust aside indigenous religious, ethical, and social structures and filled the vacuum with its technocratic mindset. The idea was that we could turn stones into bread; instead, our 'aid' has only given stones in place of bread. The issue is the primacy of God (…) that he is the reality without which nothing else can be good.

With respect to the relationship between reason and religion Ratzinger notes at the end of his dialogue that he is in broad agreement with Habermas's remarks regarding a post-secular society and the need for wise self-limitation on both sides, avoiding of what he calls "pathologies of reason and religion". Summarising one could say that Ratzinger, presuming the necessary relatedness between reason and religion, is searching for a new balance or harmony (see also Ratzinger, 2006b: 48). First, religion must continually allow itself to be purified and structured by the divine light of reason, and vice versa reason must learn to keep within its proper limits, willing to learn from religion. Religion and reason need each other, and they must acknowledge this mutual need. Second, this basic principle has important implications for the current intercultural context of the world. Both Christian faith and Western secular reason, in their mutual relatedness, have to learn to listen to the other cultures that they encounter, concludes Ratzinger (2006a: 79) in his dialogue with Habermas.

> It is important to include the other cultures in the attempt at a polyphonic relatedness in which they themselves are receptive to essential comple-mentarity of reason and faith, so that a universal process of purifications (in the plural!) can proceed.

Intercultural-disclosive approach

One must admit that Ratzinger offers a broad and deep understanding of the intellectual-spiritual roots of the Western world and – what is in particular of interest for the theme of this essay – the implications for the encounter today between the West and various cultural spheres in the world. A crucial point of his view is the presupposed balanced interrelatedness between reason and religion. On the one hand this view that represents the Catholic tradition implies a certain relativising of the Enlightenment idea about the autonomy of human reason. At the same time, however, it presumes an independent status of human rationality. Although thus, in Ratzinger's view, the domains of religion and reason need each other, the religious understanding of the world does not affect reason as such. The problem is here whether our rational understanding as just human understanding of the world is not necessarily conditioned by our religious view and faith understanding of the world (see Geertsema, 1996). According to this position our religious understanding of the world is the broader horizon within which our theoretical understanding is embedded

and articulated. Human thinking and the experience of ourselves and of the world starts from a pre-theoretical, religious understanding of faith and always has to return to it as the ultimate horizon of human knowledge and understanding of reality. And the question is now what are the implications of the latter view for our main problem in this essay, "how to include the dimension of 'culture and religion' conceptually in development thinking and practice?"

For answering these questions it is useful to refer here to some insights that the economist Goudzwaard has offered in several of his writings on the development of Western society, using fundamental notions from Dooyeweerd, a leading philosopher in the Dutch Protestant tradition of the previous century.

Goudzwaard and Dooyeweerd

A main point of his critique concerns what Goudzwaard, Van der Vennen and Van Heemst (2007: 35) called the goal obsessions of modernity that we have inherited from the Renaissance and the Enlightenment, a pattern of thought that we have also found as common ground in the debate between Easterly and Sachs. When Easterly is criticising Sachs on what he sees as the ideology of development or developmentalism, he is not opposing the goal-oriented framework of thinking as such. Searching for an alternative of goal-oriented thinking Goudzwaard introduces in his *Capitalism and Progress* (1979) the concept of 'disclosure' that he borrows from Dooyeweerd's philosophy, albeit he has rephrased this notion in a different and imaginative way.[8] Fundamental for the notion of disclosure is the awareness that we do not live in a makeable world. This is an awareness that has been present through all the ages although, like in our times, it has sometimes been slumbering. Living in such a world that is not of our own making, three dimensions can be distinguished in the way humans act and shape their life, society and culture. One could refer to these as the dimensions of 'direction', 'structure' and 'context' of disclosure (see Mouw and Griffioen, 1993). However there are important differences between Goudzwaard and Dooyeweerd. While Dooyeweerd is connecting the notion of disclosure to the process of structural differentiation of society, the differentiation into spheres according to their own unique nature, the term is intended by Goudzwaard (1979: 186) to express a direction of human life in which we turn away from autonomous setting of human goals to the searching of norms that are fundamental for human life and regain their original validity for our decisions and acts.

Being aware of the mentioned differences between Goudzwaard's and Dooye-weerd's conceptualisation of 'disclosure' it is important to notice a fundamental commonality: both aim to articulate with the help of this concept their religious understanding of the historical process of societal and cultural development. In that process humans are active agents in shaping human life and culture. Understanding the world as God's creation in which humans are called to act in freedom and responsibility, one could say that humans in the historical process of disclosure are "creative within creation". In contrast with the Enlightenment ideals according to which humans set goals in a world regarded as material that can be shaped

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8. An extensive and penetrating critique on the notion of disclosure as introduced by Dooyeweerd is given by Wolterstorff (1983: ch. 3, esp. 53-68) who is in favour of Goudzwaard's rephrasing.

according to human will, disclosure starts from understanding the world as a creation with its own intrinsic order and properties to which humans are tied in their acting although they can ignore and even suppress these. Speaking about humans as "creative within creation" this concerns the material as well the human and social world. Everybody knows that the craftsman who intends to make e.g. a chair from wood must know intimately the properties of the specific wood he is shaping with his tools. In a similar way one could argue that intervening in the human and social domain requires a good understanding of what holds for these domains of created reality.

Summarising: In the historical process of disclosure humans act in accordance with a certain spiritual 'direction' or a certain view on the world, are dependent from creational 'structures' and possibilities, and respond to these structures in a specific historical-cultural 'context'. And as said, while Dooyeweerd focuses on the structural dimension of disclosure and Goudzwaard on its directional side, both fail to take into account the contextual dimension. A serious shortcoming of Dooyeweerd's analysis is that he regards the structural differentiation of society and culture as it has taken place in the Western world as universal, which means that he has fallen into the trap of modernisation theory. A weak point in Goudzwaard is that his conception also does not help us to shape the intercultural aspects of our globalising world, taking into account the encounter between different cultures as the context of today's world. Fundamental for the intercultural-disclosive approach is the view that cultures that meet each other are not considered as closed up in itself, but show a fundamental openness to each other. And the question now arises: Why is that so? Why are cultures on the one hand unique, just particular cultures, and why have they at the same time the capacity to be open to others and to enter into a process of encounter, learning from each other and even merging with each other?

Concerning these fundamental questions Ratzinger (2004: 64) argues that in all the variety in history of social structures and customs there is a single being, man, who is one and the same. In addition this one being is touched in the depth of his existence by the truth spoken by God in creation.

> The fundamental openness of all men to others, and the agreement in essentials to be found even between those cultures farthest removed from each other, can only be explained by the hidden way our souls have been touched by truth (Ratzinger, 2004: 65).

Borrowing a term from the cultural anthropologist Onvlee (1973) one could speak here about 'culture as answer', that is to say the phenomenon of culture is understood in all its variety as a response of humans who work and live before the face of the living God – *coram Deo* – at a certain place and time in history. This understanding of 'culture as answer' enables us to bring together the three sides of disclosure, and also reconciles the universal and the particular in the plurality of cultures. It liberates us from the principle of cultural relativism while each 'answer' points beyond itself, to a 'common ground' or 'universal condition' for human existence. At the same time this understanding helps us to appreciate that each 'culture as answer' shows its own unique features. In the context of our contemporary globalising world where various cultures and world religions interact and have to find a common basis, the understanding of 'culture as answer' is supportive for a real intercultural encounter. Such an encounter is not primarily a problematic side of today's world; more important is that diversity offers new perspectives for disclosure. A real encounter between

diverse worlds can elicit new answers and open up new or forgotten dimensions of human life that are enriching for our societies and cultures, both in the North and the South.

Final notes

In this essay three approaches in development thinking have been distinguished, each shaping the encounter between different cultures in the context of development interventions in a different way. Shortly summarised the first, technical approach imposes on the community the imperative of mono-cultural adaptation to modernity, that is to say "become like us". The second approach tries to overcome paternalism and provides space for dialogue and participation. The imperative is now "remain who you are", however for our assistance you have to accept our rules underlying the participative approach. And the third, intercultural approach seeks a process of reciprocal change. The imperative is not "become like us", or "remain who you are" but "let us change together", searching for a 'third way' by entering into a reciprocal process of cultural co-evolution. The implications of the latter approach for development practice are far-reaching and require further research. Although it is not possible to present solid research results here, I will discuss some preliminary experiences gained in a development programme in which I am participating on behalf of the International Institute for Development and Ethics (IIDE).

On request of some Dutch donors the IIDE has facilitated in the establishment of a relatively small fund for 'small entrepreneurial development', the Moahisane Development Fund that is focussing on providing economic assistance to QwaQwa, a region in the south of the Free State in South Africa, located near the border of Lesotho.[9] [10] This fund has been started according to the first and the second approach, however at the same time it has been envisioned to gradually move the management of the fund towards the third, intercultural approach. For that purpose a Committee for Ethical Development has been installed, which is meant to accommodate the intercultural dialogue between the scientific experts and the people of QwaQwa. At one of the meetings of the Committee the three approaches of development that have been distinguished here were presented. For the purpose of discussion the participants were invited to give examples of each of these approaches from their own experience with regard to interventions aiming for "small entrepreneurial development." One of the interesting points that came up was that the people of QwaQwa found it hard to grasp what is meant by the concept of 'profit', while the manager of the fund, a business expert, had experienced similar difficulties in his contacts with a small entrepreneur who receives support. He found that it was very hard for him to make clear various costs that are involved in the business, such as labour costs and material costs.

It seems to me that these problems in communication refer to various social-cultural frameworks that are involved. As discussed in the introduction of this paper the household is central for people who live in traditional, rural communities. While traditional society

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9. QwaQwa is declared by Thabo Mbeki as a presidential poverty node, i.e. one of the poorest rural areas in South Africa. The average household income is a mere ZAR 1 000. The level of poverty has reached 88% while unemployment is at 57%. (*City Press*, 10 August 2003: 9).

10. For more details on the Moahisane Development Fund reference is made to the website of the IIDE, <http://www.iide-online.org>.

is undifferentiated which means that the household entails a variety of practices, such as the preparation of food, the transfer of knowledge to the growing generation, the making of clothes and the giving of care, modernisation has led to the rise of different spheres of professional responsibility, such as that of the entrepreneur, the teacher and the medical practitioner. The term 'profit' is thus not neutral but related to the principles underlying the practice of the entrepreneur in a differentiated society that is unknown to people who think in terms of traditional society in which the household and family are central. The key problem for the intercultural approach of development that is illustrated by this example can now be formulated as follows: "How can we find connections between the two worlds, between traditional African culture and the modern technological world?" And concerning entrepreneurship the challenge is to reconcile African traditions and the culture underlying the modern enterprise. In the light of the failures of the past decades in development aid such a creative intercultural search for a 'third way' seems to be the only viable alternative for the future (see Van Gerwen, 1999: 217).

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This book further explores ideas elaborated on in an earlier book called *In Search of an Integrative Vision for Technology* (2006), edited by Strijbos and Basden and published by Springer Verlag.

In co-operation with SAVUSA and Christian Aid, the IIDE was also responsible for the publication of *From our Side: Emerging Perspectives on Development and Ethics* (2008), edited by De Gruchy, Koopman and Strijbos and published by Rozenberg in the Netherlands and UNISA Press in South Africa.

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FROM TECHNOLOGY TRANSFER TO INTERCULTURAL DEVELOPMENT

The idea for this book has been born in a dialogue between the authors of *In Search of an Integrative Vision for Technology* (2006) and a group of scholars and practitioners from South Africa whose research and development activities focuses on problems of traditional African society and culture. Although there existed awareness in the writing of the earlier book that the search for normativity for our technological society should encompass the different cultural spheres of the world, no attention has been paid to the problem of interculturality. Focussing on the development of technology in the 'developed societies' the emphasis was laid on finding a basis for 'interdisciplinarity', bridging the gaps between the sciences and humanities as well as between theory and practice. According to the vision that has been elaborated on in the above book, not the autonomous dynamics of technology as a free-flying projectile should determine the future of our global world, but guidance has to be provided by a normative perspective on technology for the 'common good' of all people and cultures. Following further this line of research the current book aims to address explicitly the 'intercultural' dimension of technology in our globalising world.

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