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Anthropological Theory and the Alleviation of Anthropogenic Climate Change: Understanding the Cultural causes of Systemic Change Resistance

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Abstract

In this article I argue that anthropologists are well placed to investigate the role of cultural practices, social contexts and ethical considerations in enabling communities and individuals to respond effectively and humanely to the potentially catastrophic consequences of those global climatic changes most scientists now hold to be inevitable. The aim is to show how culturally mediated moral considerations and habitual behaviour patterns inform community responses regarding the urgent need for climate change mitigation and adaptation. The article proposes a method of systemic cultural critique to raise awareness of destructive behaviour patterns enshrined in the most basic cosmological assumptions of late modern consumer society.

‘One must imagine Sisyphus happy.’

Albert Camus, The Myth of Sisyphus, 1942, closing words.

Anthropology and climate change: What does culture have to do with it?

In this article, I examine what the discipline of anthropology may contribute to the worldwide effort to cope with the certain prospect of substantial and the likely prospect of catastrophic anthropogenic climate change. What anthropologists do is not always clear to the public, and even for us, it has become difficult to remain mindful of the discipline’s overall mission in the wake of ever increasing specialisation. I begin by providing a broad outline of what I believe to be the discipline’s fundamental concerns and insights, and why these insights are important in the current struggle to gain broadly based cultural and political acceptance for incisive climate change mitigation and adaptation policies.

In anthropology the world’s many diverse cultures are understood as distinct, cohesive and sometimes very durable systems of social interaction, communication and knowledge transfer, without losing sight of the fact that these are also mutually permeable, internally textured, and historically evolving, dynamic systems. Cultural anthropologists are the social scientists most specifically trained to evaluate the differentiating impact of culture – that is, of shared ideas, values, symbols, language, conditionings and histories of interaction - on human consciousness and behaviour across the world’s many social systems or ‘societies’. This special training of

anthropologists consists of long-term exposure to, and in-depth study and experience of a second culture other than their own.¹ Systematic and voluntary exposure to a second culture can help us overcome self-righteous ethnocentric attitudes based on our commitment to our own culture. This leads us to recognize the particularity of each one of the many cultural identities and forms of cultural conditioning found among human populations on this planet, including and especially our own conditioning. Like sociology, anthropology is rooted in western intellectual traditions, something many believe to be an epistemological impediment. We hope to free ourselves from this historical baggage by realising the ideal of a genuinely global anthropology, in which every cultural perspective is given equal recognition, both as a subject and an object position (Ribeiro and Escobar 2006; Kim 2005).

In their effort to characterise, and compare the world's diverse cultural systems and understand the effects of different cultural conditioning on behaviour, anthropologists have long discovered the tremendous importance of cosmologies. Cosmologies are not just descriptive models of the world; they are also normative models, that is, models for action. Part of what such models describe is thus the social orders we ourselves create, though individually we may experience it as an objective phenomenon. Cosmologies, whether they are religious or secular, contain our most fundamental and important assumptions about the world and our place as human beings within that world, and about what constitutes a good, meaningful and worthwhile life.² In short, they are not just assumptions but can, and often do constitute genuine and valuable insights. Nevertheless, because their character is not certain it is best to treat cosmological premises as assumptions that need to remain open to critical reflection.

While cosmologies may be concerned with fundamental questions by definition, this does not mean we are fully aware as individuals of the cosmological premises that guide our decisions and behaviour as participants in a particular cultural system. Anthropologists have discovered that we know the basic shared assumptions of our culture intuitively and in a holistic fashion, as a gestalt, but may not be fully conscious or able to articulate what they are (Bourdieu 1971).

¹ A discussion of whether ethnographic study of one's own society ('anthropology at home') yields the same potential benefit of achieving a 'bi- or multi-cultural awareness' (Reuter 2006) is beyond the scope of this article. In my view, however, systemic patterns and differences have been observed within social fields on every conceivable scale; between cultures, settlements, cities, neighbourhoods, work places, organizations and households. Hence there is little sense in (artificially) drawing sharp distinctions between cultural and sub-cultural differences, just as the distinction between dialect and language is in essence fluid and in theoretical usage heuristic rather than absolute.

While there are, of course, cosmological discourses that often strive to rationalise and articulate such intuitive cultural awareness, the difficulty in articulating the immense subtleties of our own cultural conditioning is immense. Cosmologies therefore tend to rely heavily on the symbolic or metaphoric language of art, ritual and religion to make accessible to consciousness what is difficult to put into words. In part, cosmological premises also remain embedded in the non-reflexive embodied experience of habitual everyday action or habitus. We therefore can, and typically do, acquire many of the core elements of a cosmology by mimesis or imitation of the behaviour of others around us, rather than through formal, verbal instruction or analytical reflection. Nevertheless, it is also true that in every society there tend to be individuals or groups, such as religious leaders or social critics, who engage in systematic reflection and seek to grasp this tacit cosmology conceptually and to articulate their conclusions so that they can share them with others. Such explicit cosmologies are always partial discursive maps or representations of culture, and even if they are philosophical rather than mythological, will often be forced to resort to metaphor or other poetic devices in order to point at what may be, forever, beyond words.

Meanwhile, the work of biological anthropologists and human behavioural ecologists and neuroanthropologists has shown that fundamental aspects of our behaviour are also rooted in a complex array of dynamic biological processes. These processes include our slowly evolving genotypic characteristics as a species but also environmentally or historically driven epigenetic and learning processes that are far less conservative (Crawford 2007; Jablonka and Raz 2009). The latest research shows that the body, and especially the brain, is shaped by cultural behaviour and vice versa (Domínguez et. Al 2009), making it difficult to assign a singular causal direction to these phenomena. Nevertheless, insofar as there are actual drivers of human behaviour that are located primarily at the level of genetic coding or epigenetic and other forms of somatic experience, rather than resulting from cultural learning, these drivers are likely to be even less subject to conscious scrutiny and present within our deepest cosmological assumptions in a highly abstract form only. This may add further complexities to the task of understanding human nature, or may simply be expressing the same complexities in a different discourse. In my opinion, the subject matter of scientific attempts to map the human cosmos with biological theory (or even with physics) may prove to be identical with the subject matter of our more long-established religious and artistic cosmological imagination, and both methods have the same problem of running into the limitations of the language-dependent aspect of our consciousness.

² Like cultures, cosmologies are not bounded entities in any simple sense, and hence the behaviour of many individuals, especially in today's world, is influenced by multiple cosmologies. Nor are cosmologies devoid of internal contradictions.

Along a gradient from explicit cosmological discourses, to cosmological symbolism and innate human tendencies, there is a decline in the degree of accessibility to conscious awareness, and a decline also in culturally conditioned variability. Where exactly we ought to draw the line between nurture and nature, culture and biology, does not seem to be the important question any more. Perhaps such dualism has no place at all in the analysis of what appears to be a single gradient of awareness of a single, though highly complex reality. Rather, the important practical questions are, particularly in relation to the climate change challenge we now face: How can we explain regulated behaviour within a human social collective, especially such behaviour as would seem odd or even self-destructive to a detached outside observer not subject to the same tacit cosmological assumptions? Furthermore, how can we change such assumptions and collective behaviour patterns against the powerful current of habituation that arises from 'self-resonance' with our own past states and experiences (Sheldrake 1988), whatever the mechanism may be? I would like to argue that, if climate change and other contemporary challenges require from us fundamental shifts in behaviour; we must either strive to increase our awareness through critical reflection or accept the inevitability of hefty Malthusian 'positive checks' on human population numbers (war, disease, famine, etc) in the near future.

The need for reflection is particularly great at this historical juncture, and there is evidence that such a process has begun. My own research, and the research of many other colleagues in the field of the anthropology of religion, for example, suggests that religion, which is one form of cosmological reflexivity, is again receiving increased attention within the public sphere after a period of modernist secularisation. One reason why religious cosmologies may be resurging is that many of our secular cosmologies -- such the cosmology of consumer culture and the cosmology of technological progress-- are very poorly articulated or poorly developed with regards to ethics and long-term consequences and thus lead to unsustainable practices.

To conclude, one key insight provided by anthropology (particularly the post-structuralist anthropology of Pierre Bourdieu and others) is that the shared cultural or cosmological assumptions that motivate us collectively can be 'incorrect', that is, they do not always contribute to a good life. Such evaluations are problematic. For now, however, the point to remember is that collective behaviour is based only in small part on assumptions that are subject to consistent and in-depth conscious reflection, and largely on other assumptions or drivers that lie more or less outside the realm of our conscious awareness. If we want to raise these hidden life assumptions to awareness, and thus acquire the capacity to change them, we thus need to engage in meta-cultural reflection or 'cultural critique'.

Anthropology, climate change and the method of cultural critique

What is cultural critique, and how does it work? Marcus and Fisher (1986) have famously discussed the process and scope of cultural critique, as have many other theorists in anthropology, and I cannot review this debate here. In addition, the idea of achieving greater awareness through critical reflexivity is also familiar from other disciplines, including psychology and cultural studies. The unique aspect of anthropological critique is that it seeks to raise cultural, that is, collective awareness, and brings a fundamentally comparative or ‘intercultural’ approach to the task.

In order to illustrate what I mean by ‘comparative’ or ‘intercultural’ critique of culture, it may be helpful to draw an analogy with psychological processes at an interpersonal level. Any undesirable, destructive or irrational aspect of our behaviour and of the underlying life assumptions we hold as individuals are frequently and relatively easily laid bare by the tacit or explicit ‘critical’ responses we receive from other individuals, who have the advantage of seeing us from the perspective of an outside observer. It is far more difficult if not impossible to achieve the same degree of critical awareness by engaging in a process of solitary self-reflection. I argue that at a collective or cultural level, the same principle of ‘greater awareness through inter-subjectivity’ applies. Of course the mechanisms of awareness-raising that operate among interacting individuals differ from the mechanisms of intercultural critique, so that an analogous but different inter-cultural method of critique will need to be outlined.

Collectively shared, cosmological assumptions have a paradigmatic or ‘epistemic’ character. They tend to be socially sanctioned, and are rarely challenged by individual participants from within a culture (Kuhn 1962). Those few who are located somewhere at the lower end of the normal distribution of levels of commitment to unconscious life assumptions, and at the high end of the normal distribution of reflexive awareness, the Galileos of this world, can and sometimes do challenge the assumptions shared within their own society, often at some risk to themselves. They tend to be punished, silenced or marginalised for daring to oppose the direction of the social system’s overall flow of habituation. Sometimes the proponents of change may themselves contribute to a lack of popular acceptability of their suggestions because their awareness is sufficient only to identify the presence of a destructive collective behaviour, but insufficient to comprehend the basic life assumptions that drive the behaviour.

Climate scientists often find themselves in that position because they lack training in cultural analysis. Without the capacity for a very deep cultural critique of behaviour, therefore, the popular response such whistleblowers will receive may include ridicule and persecution. It may also include some nods from bigots who have a similar commitment to simplistic causal rationalism with regard to the analysis of human behaviour as do the whistleblowers (‘if you

behave in the manner x , the result will be y '), or who so happen to adhere to the same conscious model of morality (eg. 'as greens we oppose consumerism'). Unfortunately, the noddors are likely to go home and continue the same behaviour regardless of their conscious opposition, quite despite themselves. Indeed, the same inner inertia in actual behaviour often applies to the proponents of change themselves. Even among those few who do practice an alternative, more constructive behaviour systematically, we may find that the majority is motivated by an intuitive understanding of destructive cosmological assumptions within their own culture. This intuition may be sufficiently acute to allow them to change their own behaviour, but not sufficiently conscious (in the conventional sense) to allow them to articulate what the root of the behaviour problem may be. Finally, even those rare individuals who are aware of the root causes of major, historical challenges such as climate change, and are able to clearly articulate them, must contend with the fear, resistance and denial of the societies in which they live and on which they depend for their livelihood (see Milton 2007). In the words of two distinguished climate change researchers:

Changing public opinion and galvanising political and market action is an art rather than a science, but an art made all the more complex by the array of human emotions that discussions like this provoke. If the message is too soft... people don't confront the scale of the challenge... and avoidance is a welcome escape. However, if the message is too hard... people normally switch off, and move into denial, or worse, into resistance (Randers and Gilding 2009:1).

Anthropologists therefore tend to argue that the best critique of culture available to us is an inter-cultural critique, rather than a solitary cultural self-critique. The very existence of other ways of life reveals that our own is just one among many, arbitrary and man-made rather than necessary and natural. From the perspective of another culture, with a set of very different life assumptions, taken-for-granted patterns of thinking and behaving within our own culture can become glaringly obvious. They can then be subjected to questioning and critique. Therein, I would argue, lies the greatest potential for anthropology to make a special contribution. An anthropologically informed, critical intercultural awareness is ideally suited to create an opening for the kind of fundamental cultural change that is now required of us.

I would be sceptical of the chances of success for such an intercultural project of critique if the same old difficulty of articulating and disseminating path-breaking insights were to remain in place. In the current era of globalisation, however, the project of intercultural critique is aided at a popular level by the fact that people everywhere are now subject to essentially 'ethnographic' experiences of exposure to other cultures; through increased mobility, migration and travel, and by what they see on their TV and computer screens. Fewer and fewer individuals are able to ignore the presence of cultural alternatives and the arbitrariness of their own cultural

conditioning, though the resurgence of fundamentalism and ethno-nationalism in many parts of the world shows that many people still strive to resist this trend. In an electronically mediated global society, this would seem impossible in the end. I therefore would suggest that humanity, as a whole, is approaching an anthropological moment when the awareness- raising possibilities of intercultural comparison and meta-cultural reflexivity are becoming more widely available, and the message of anthropology more readily understandable.

When we now look back at the current state of the global campaign to reduce greenhouse gas emissions, the lack of willingness to actually change behaviour -- despite a wealth of scientific evidence and dire predictions from our climate scientists and a veritable storm of moral arguments for behaviour change from political activists and religious groups — may no longer surprise us. A few lobby groups with special, vested interests aside, most people now agree that the earth is warming, and that we need to both mitigate and adapt to climate change urgently. Why then has the political will to bring about the necessary behaviour change been so sadly lacking? Is it a capitalist conspiracy led by the fossil fuel lobby and others who still profit from the abuse of fossil fuels? Such political explanations abound, but I do not think it is helpful to view special-interest groups as existing somewhere outside of our society and culture, in an imaginary realm of inhumanity. ‘They’ are really a part of ‘us’. If fossil fuel lobbies continue to succeed in derailing climate change negotiations, then we must ask how we all make that possible - why it is that we who nod to the climate science keep returning to the petrol pump just as often as they do.

Of course, there are all manner of excuses for this resistance to change, and some of them have merit. Many will say, for example: ‘I cannot do anything as an individual.’ There is a shared complicity in this, nonetheless, which begs explanation. From our earlier discussion, it would seem that this complicity arises from the fact that the prolific use of fossil fuels is a fundamental and utterly ‘normalised’ assumption in our culture. Ours is a crude oil cosmology. The assumptions of this cosmology, and our unconscious commitment to it, have deep cultural roots indeed, and perhaps they may even relate to our basic biological design as primates.

If that is so, anthropology has an enormous contribution to make, by laying these roots bare. Climate scientists may be able to tell us what behaviours we need to change, but they do not normally reflect on how these behaviours are embedded within a particular culture and cosmology. Economists - who occupy much of the remainder of the policy debate on climate change - do consider the wider implications of the required behaviour change in terms of its flow-on consequences for entire systems of production and consumption. However, they do not tend to consider how we might want to revise our fundamental assumptions of what constitutes a good and worthwhile life.³ Indeed, given that the modern economic system of mass production

and associated cultures of consumerism and ideologies of capitalism are responsible for the current crisis, they will not lend themselves to empowering fundamental changes that would negate their own core principles. It would be like a goat pretending to be a gardener. The effect is familiar. Take carbon emission trading schemes as an example of the amazing solutions our economic gurus proposing: How would you respond if I proposed a system for trading ‘speeding certificates’, whereby you would travel at or below the speed limit, get certificates for that, and then sell them to me so I can travel at speeds above the limit?

But, to be fair, how can my alternative proposal, based on an anthropological critique of culture, be justified in light of the fact that the discipline has not been all that prominent in informing and advancing the climate change debate until now (see Baer 2007 for a review of contributions)? What is stopping us? Is it the economists, who refuse to listen? Perhaps, but there is more to it.

For a whole century now, anthropologists have told themselves (and the world): ‘judge not your cultural other, lest thou be judged’, and rightly so. There is a world of difference, however, between blind ethnocentric prejudice and critical discernment. Exercising cross-cultural discernment is perhaps a dangerous course to navigate, with a constant threat of lapsing into one or another form of intellectual neo-colonialism, especially where political inequality mars the intercultural dialogue between the parties involved. Let me therefore reassure my colleagues: the intercultural critique I am thinking of is first and foremost a critique directed at a western culture that is now all but hegemonic. This new ‘world order’ need not be spared from criticism out of some misguided sense of unconditional respect for all cultures. It is also the culture and associated economic system (or ‘material culture’) that is the cause of climate change, the more so for having spread out to transform other cultures and becoming an utterly global phenomenon in the process.

³ Economist Fritz Schumacher’s famous work (1999 [1973]) is one of the few exceptions.

A critique of the hegemonic culture of globalisation: Fossil fuels and the addiction to ‘free’ energy

In the remainder of this article I will make a first attempt at a meta-cultural critique of contemporary global culture, focused specifically at our addiction to fossil fuels and our utterly unsustainable way of relating to nature. I could perhaps have presented a more rigorous and comprehensive epistemological argument in support of my claim about the essential merit of applying anthropological knowledge to the problem of climate change. However, many non-anthropologists would find this kind of discussion rather esoteric and remote from the issues at hand, and I do hope some of them read this journal. Instead, I will now make a practical attempt at applying the method of intercultural critique to our current climate change dilemma, and we will simply see how useful this approach may be.

There are many possible approaches to conducting an anthropological analysis of the climate change crisis other than my own. I could think of several myself, and some of my colleagues may well be critical of the specifically post-structuralist approach I am adopting in this article. I therefore encourage vigorous debate on this and any other, alternative approach that may be available. While a direct and systematic cross-cultural comparison with societies still at the fringes of this global system is beyond the scope of this article, my critique is not just a self-reflexive attempt at pulling-ourselves-out-of-quicksand-by-our-own-hair. It reflects the profound effect on my awareness of the long-term exposure to four different cultures I have experienced in various capacities, as an anthropologist but also as a traveller and a migrant.⁴ Such exposure has left me and, in this era of globalisation, is leaving an increasing number of human beings with a certain degree of detachment from any one particular form of cultural conditioning.

Why do cultures and cosmological assumptions matter if our aim is to analyse whether and how communities are able to respond effectively and humanely to those catastrophic consequences of global climate change most scientists now hold to be inevitable (Parry et al. 2007). Responses to crises are certainly driven by economic variables, such as the supply and consumption of natural resources, and material factors can forcibly raise awareness by confronting people with a tangible, perhaps even a deadly challenge, such as environmental and economic meltdown or war. This is clearly the case now. Nevertheless, there can be no doubt that cultural predispositions make an enormous difference in a crisis situation; for example, between finding peaceful, lasting solutions and short-term knee-jerk responses such as fighting wars to gain control over dwindling resources (Klare 2001). Examples of ‘cultural factors’ that impact on our responses to crises include such cultural practices as natural science, neo-liberal ideology, democracy, totalitarianism, millenarian movements, economic theories, consumerism, institutionalised crime, Taoist philosophy and academic conferences.

⁴ I have experienced long-term exposure to the cultures of Germany, India, Australia and Indonesia, and have visited more than 60 other countries.

As we contemplate this very incomplete list of far flung examples, it is not difficult to see why culture might have something to do with the causes of climate change and with its possible mitigation. While I would not want to dismiss or diminish the value of political economy approaches, I reject any form of ‘materialist’ reductionism. Even conservative ‘natural’ scientists and political economists are now starting to see the need for the humanities to become involved in the debate. Indeed, genuine conservatives are today’s ultimate radicals. A pertinent example is a new paper by Jack Harich on ‘Change resistance as the Crux of the Environmental Sustainability Problem.’ Therein Harich (2010:9) argues that: the ‘systemic root cause of improper coupling’ (i.e. Maintaining a system of human behaviour that is not commensurate with a sustainable environmental system) are ‘agent goals that conflict with the common good’, a more or less unwarranted ‘fear of loss’ if associated practices were discontinued, and successful ‘techniques [for] enhancing resistance’. Consequently, ‘known proper practices’ (i.e. Sustainable practices) are not being adopted. This begs the question as to the source of such desperate fear and the object of potential loss, which I will address below.

Post-ecological natural science is perhaps even ahead of conventional social science in realising that the hoary dualisms of modernity are dead in the water, that as members of the species *homo sapiens sapiens* ‘culture’ is indeed our ‘nature’, and that, by the same token, humanity is fully and irrevocably a part of nature writ large. It is indeed hard not to be concerned, and to hold on to our disembodied, mind-identified, pseudo-transcendental attitude from the perspective of natural science, as we discover ourselves hurtling through space on a small rock covered with a thin lm of life, and see our fellow passengers suffering extinction at a rate almost unprecedented in the history of life on this planet. As economist Jeffrey Sachs (2008:139) puts it, ‘we are devouring our very life-support system, and finding excuses along the way not to care.’ The reason why ‘we’, this particular species of life, is now a threat to the planet is not because of our physiology and innate requirements for natural resources. All species of mammals, for example, have physiological designs and associated ‘resource needs’ that are quite similar to our own. Perhaps the most basic need for all animals, and indeed for all life, is the need to secure a supply of energy sufficiently large to support the organism’s essential somatic functions and its capacity to reproduce. But while other species too can and do experience environmentally-, and eventually self-destructive population growth, the problems posed by *homo s. Sapiens* are as unique in their quality and scale as they are disturbing.

In my analysis, it is not our physiology but the historical transformation of human culture that has increased our overall population as well as our per capita impact on the natural world dramatically, and in ways that are not sustainable. More specifically, the current trouble is due to a form of culture we humans were able to develop quite recently on an evolutionary and even on a historical time scale. The main steps include: 1) the invention of large scale agriculture and

urbanisation some 10.000 years ago; 2) the scientific revolution since the Renaissance, 3) the industrial revolution from the mid-nineteenth century onward, and 4) the rise of a global consumer culture after the end of WW2. This ‘we’, ‘us’ or ‘our’ does not include all previous nor all contemporary cultures, some of which continue to uphold more sustainable ways of life. Nevertheless, all contemporary cultures do find themselves exposed to the direct or indirect effects of a now nearly hegemonic world culture, often referred to ‘late’ or ‘liquid modernity’ (Baumann 2000), and an associated economic system of consumer capitalism. In this sense only, I am talking about global ‘we’. In other ways, the responsibility rests more squarely with ‘us’ in the so-called western, developed world.

I would like to encourage anthropologists – especially colleagues in developing (or ‘exploited’) nations contemporary global culture, wherewith to remove the veils of unconsciousness created by fear or denial or ignorance or simply by extreme familiarity or a false sense that there is a lack of alter- natives or as a matter of malicious manipulation. What we need is a critical anthropology; more critical than anything we have dared to contemplate before, and if my earlier argument is correct, such a critique is most likely to succeed if it is intercultural. The model of ‘cultural analysis’ I employ is similar to post-structural psychoanalytic models for the treatment of psychological dysfunctions (neurosis or psychosis) in individuals, and is similarly derived from a layered model of human consciousness.⁵ As already discussed, the aim of this kind of cultural critique is to produce a shift from a dysfunctional and unconscious toward a more conscious and constructive behaviour on a societal scale. This is assuming that dysfunctional behaviour is not based on free and conscious choice, but is a result of ignorance.

I would define cultural dysfunction as a basic, cosmological and hence pervasive tendency to engage in behaviours ‘collectively’ (all in parallel on their own, or all differently but in concert) that together are injurious to human life, well-being and dignity, and to the integrity of the environment. I agree with Jared Diamond (2005) that the total collapse of societies has been more often due to a failure to maintain a sustainable mode of collective behaviour toward the environment than due to internal tensions brought about by ‘social behaviour’ in the narrower sense. Such sustainability failures are also the most important dimension of cultural dysfunction for the purpose of this discussion. However, this does not mean we should accept ethnocentric explanations based on reductionist ecological theories. Ecological and economic behaviour can and does vary greatly across different societies operating within similar environments.

⁵ As I earlier observed about culture and language, thinking in terms of layers or only boundaries is merely a heuristic device and may have no ultimate reality. In reality, consciousness moves along a smooth gradient of awareness in ways we are only beginning to understand. Still, as a heuristic it is very useful to think of different degrees of consciousness.

These differences arise from variable cultural priorities and associated habitual behaviours, and also from variable cultural techniques and technologies of production, distribution and consumption. Ecology can be a constraint but it does not actually tell us what to do, nor is our behaviour confined within some simplistic rational-choice process of profit-maximising. The fate of different social systems in terms of environmental sustainability thus depends on what one could broadly describe as ‘economic’ or ‘ecological culture’ and ‘material culture’, rather than unfolding in an imaginary culture-free world of individual rationality or ecological determinism.

Intercultural analysis is capable of revealing the unconscious drivers of dysfunctional (harmful) collective patterns of habitual behaviour within a given culture, behaviours that also include the use or misuse of specific technologies and resources. One way of conceptualising and critiquing cultural dysfunctions relating to the use of resources is to think of them as ‘addictive behaviours’. I would define cultural addictions as normalised or institutionalised collective behaviours that cause serious harm, but which we find ourselves unable to discontinue, even though we may wish to do so, because they arise from unconscious (and hence unknown) assumptions and drives. Collective addictive behaviour is thus normalised, ignored or even valued positively within a society, despite its negative effects. One reason is that negative effects may take a long time to unfold before they are strong enough to produce incentives for reflexivity (i.e. A crisis). In addition, negative behaviour patterns are often interdependent with other patterns of behaviours that together constitute an integrated way of life. It is thus important to detect the compensatory functions of overtly ‘dysfunctional’ behaviours within a systemic context because they point to the underlying drivers of the behaviour. Even though a harmful behaviour may not be justifiable by virtue of its compensatory function in any absolute sense, because it is harmful in its overall net effect, it can have small positive side effects that are disproportionately valued in the society concerned. Sudden discontinuation of an addictive behaviour can also genuinely jeopardize the system as a whole in cases where the compensation effects and other forms of systemic integration are significant considerations. In most cases, such considerations raise fears that the system is under threat, and trigger a resistance response. Over time, such spontaneous resistance responses develop into more highly developed and effective ‘resistance techniques’.

If we reflect on our contemporary societal addictions, the noxious habit most obviously related to anthropogenic climate change is our widespread reliance on fossil fuel combustion in cars, machines and electricity generators, and our dependence on fossil fuel-based fertilizer production and agriculture (see also Newell 2000:9; Baer 2008). Ironically, the addictive nature of the chemical substance ‘petroleum’ – in a more literal sense - is evident in the practice of petrol-sniffing widespread among extremely poor, marginal and often indigenous communities, mirroring the less visible dysfunction and addictive behaviour patterns of the global mainstream.

But what are the hidden drivers of petrol addiction in mainstream society, where poverty is not an issue? The attraction seems to lie in the possibility of artificially enhancing the amount of energy or life force we can command for the purpose of mobility, mechanised mass manufacturing, food production, etc. An abundant supply of cheap energy increases our ability to manipulate, control and consume the objective world and thus artificially enhances our sense of being alive. This additional life force is not authentic, however, and comes at the cost of alienation. It is borrowed from petroleum and coal, which are fossilised hydrocarbons produced by prehistoric plants that have been outside the active carbon cycle of our planet for millions of years. Our appropriation of a separate energy source other than food and wood (renewable energies which are derived from the photosynthesis processes of living plants) has made it possible for us to entertain cosmologies that, likewise, portray man as a subject separate from and largely independent of the life processes of planet Earth. This conclusion - concerning the cosmology that helps to maintain fossil fuel addiction - is supported by my research on global trends in cosmological thinking (Reuter 2008). The research suggests that modernity was characterised by precisely this kind of transcendentalist cosmology, whereas the latest trends indicate a swing toward earth-based spiritualities with monistic cosmologies that locate both man and the sacred within nature.

The idea of analysing fossil fuel use as an addiction is not entirely new. It was first put forward (to my knowledge) by progressives like Pulitzer Prize winner Gary Snyder in the response to the 1970s fuel crisis. Snyder spoke of the distortion in our livelihoods caused by a one-off 'fossil fuel subsidy' and commented on the addictive nature of the consumerism underwritten by that subsidy through the medium of modern mass production (Snyder 1980). Apart from its impact on per-capita consumption, others have commented on how the fossilised 'life force' harnessed from hydrocarbons has also been a key driver of human population growth (Sachs 2008), which – along with per-capita consumption - is a key variable in the overall greenhouse gas emissions rate. If we were to analyse this energy and consumption addiction by looking back at our society through the external lens of some of the cultures I have studied, it would appear that we have developed a dysfunctional cosmology. The problem arises from the delusional idea that the human 'part' stands apart; that it has a transcendental character and is thus separate from the natural 'whole'. The part then comes to regard the whole as an external object to be appropriated, controlled and consumed, while gradually forgetting that it owes its very existence to the whole. This deluded outlook lies at the heart of the addictive pattern of consumerism, especially our star-crossed love affair with the motor car, our need for speed, motion and mobility, obsessions that all count among the hallmarks of late modernity. This attitude toward life is deeply entrenched in a dualistic philosophy of modernism that has created for us a cosmology wherein the holistic embodied Self has been lost to a process of ever increasing identification with transcendental mental forms and separation from nature. This mind-identified pseudo-self

pursues material gain in order to find itself again within material existence, and is led by this Sisyphus quest into a perpetual treadmill of desire for more, and more and still more. The removal of self from the world leaves a hole in the cosmos, small but large enough to pour the whole world into – all to no avail. Such insatiability or ‘desensitisation’ is also evident in drug addicted individuals, who will require ever greater quantities of a particular substance to escape the realisation that there is in fact a qualitative lack in their lives that no amount of the substance can ever remedy. Addictive object relations thus arise from an underlying insanity or dysfunction in the domain of subject relations.⁶

From a cultural history perspective, one could also say that secularisation, the loss of recognition for the sacredness of the whole in favour of an appropriating attitude towards it, has led to an objectification of the natural world, including our own bodies or ‘inner nature’. Ironically, the disembodied, separated, mind-identified transcendental modern subject is plagued by an insatiable hunger for material objects classed as consumables (including human bodies), failing to realise that it is in fact cannibalising itself in a vain attempt to recover its lost sense of unity with nature.

Many prominent spokespeople of tribal or more traditional societies have commented on the madness and alienation of modern man.⁷ In some of the particular cultures and cosmologies I have studied, the annihilation of the mind-identified self - which is the primary source of fear in modern man (Reuter 2009) - is an important project and seen as utterly desirable. Indeed, the annihilation of the false, illusionary, mind-identified self is regarded as the main prerequisite for genuine Self-realisation, and is said to lead to an experience of unity with the sacred, the whole, the existential ground of Being.⁸ Identification with the larger whole is seen as the foundation of all moral conduct in these and many other non-modern societies, and while not everyone is expected to feel completely at one with the cosmos, there are also more modest and achievable intermediate steps, such as feeling a sense of care and responsibility toward one’s community or one’s natural environment.

⁶ Alice Miller (1979) refers to this endemic dysfunction as narcissistic disturbance, and contrasts it with a healthy state based on self-acceptance. She comments at great length on the profound insatiability, and ultimately the fragility, associated with this common condition.

Some of my western colleagues will see other peculiarities in modern global consumer culture through the lenses of the other cultures they have studied. Together with local colleagues and other representatives of these communities themselves, we can perhaps serve as the eyes of the world, in all its cultural diversity, turning a critical gaze back upon modernity. A recent example of such critical consciousness arising from the margins is the vehement attack launched at the Western world, in view of its voracious appetite for fossil fuels, by the government of the Maldives after the failure of the climate change summit in Copenhagen (Todorova 2010).

I would like to add that some human dysfunctions are so profound that they cut across many cultures, and the most basic of all is the attachment we have to cultural conditioning per se, which contributes to our proclivity for identification with mental forms. Fortunately, intercultural comparison can lead us to realise that all such conditioning is relative, and sometimes arbitrary, though it is undoubtedly also very useful so long as we understand that. Just as individuals learn and grow in awareness through inter-subjective experiences with other individuals who are different, so cultures must now engage in dialogue to pool their different resources quickly, in a spirit of mutual respect, towards averting the global environmental disaster we are facing. Cultural globalisation based on mutual respect and dialogue is, I believe, a powerful cure for addictive behaviour. It presents us all, not with imaginary alternatives to our own cultural addictions but with real alternatives that have been lived, tried and tested (see also Maybury-Lewis 1992).

⁷ An example is 'Uncle' Bob Randall, a Yankunytjatjara elder and a traditional owner of Uluru (Ayer's Rock) in Australia (see Randall 2003 [autobiography]). For an interview refer to www.globalonenessproject.org/interviewee/bob-randall.

⁸ I am referring here to the well-known concepts of *nirvana* in Buddhism and *nirvikalpa samadhi* in Hinduism, and to the less well-known concepts *manunggal* ('achieving unity') and *awang uwung* ('the emptiness that is full', i.e. non-duality) in Javanese and Balinese mysticism.

Will this kind of inter-cultural exchange ever happen? Well, to some degree it is already happening, because cultural globalisation is essentially a form of knowledge exchange. And then again, no, it will not happen in the way we may think it should, unless we actively pursue this goal. Apart from raising global awareness and reflexivity, exposure to the mirror of other cultures through globalisation can also lead to regressive responses such as the renewal of exclusive ethnic, nationalist or religious identities we are now witnessing in many countries. This kind of fear-driven defensive response may be an obvious option but it is not 'natural'. Rather, it is orchestrated and serves as a political tool for some of the dysfunctional and unscrupulous individuals we allow to pose as our leaders. There is a kind of globalisation response we could well do without. On the other hand, there are also movements and institutions whose members fight consciously and constructively to defend the right to cultural diversity, and who thus contribute towards maintaining the potential for equality, global dialogue and a genuine global consciousness.

In essence, what I propose is that, on the long road to a global state of freedom from unconscious and dysfunctional conditioning, one of the best ways to advance is to raise consciousness through a juxtaposition of different forms of cultural conditioning. Such a global anthropological dialogue will reveal the arbitrariness of all conditioning, and the fallacy of the quest to glean a separate sense of self from one's own collective or personal story, in a cosmos that has no walls.

Further suggestions for an anthropology of climate change

There are of course numerous other possibilities for the anthropology of climate change not yet considered within the model proposed above. Nevertheless, when we explore some of these other climate change issues that are suitable as topics for anthropological analysis, we soon find that they all somehow come back to the fundamental problem of unconscious conditioning, and highlight the need for awareness raising through intercultural reflexivity.

One of these topics is the issue of climate justice. There has been considerable debate about the ethics of climate change in negotiations in Kyoto, Bali, and now Copenhagen, particularly in relation to the rights of developing countries, who do not have the same historical responsibility as developed nations in terms of their proportional contribution to rising levels of atmospheric greenhouse gases and global warming. Another aspect of this ethical debate is the issue of responsibility toward future generations. The reason why I may appear not to have said much about ethics is that, as I understand it, ethical consciousness has two basic forms. One form arises naturally from awareness. The other is a mental construct to enhance one's own self-image based on the need to think of oneself as right and others as wrong and morally inferior. The first can only emerge through insight, through the kind of awareness work I have outlined above, while the second is ultimately ineffective because it is deeply embedded within and part of the

dysfunction of identity politics and unconscious cultural conditioning. Ethical behaviours towards the natural environment and towards other human beings, as seen from this perspective, arises only as a consequence of more appropriate subject relations, namely, from an object perspective on the Self as part of an all-encompassing whole.

Another important issue that anthropologists will have much to say about is the influence of utopian and dystopian thought on our response to the climate change challenge. The analysis of futuristic imagination is an important task because such imaginings are forward projections of culture-specific, present-day cosmologies, and are used to either legitimise or discredit these cosmologies. For example, dystopian imaginings of a future world dominated by machines, such as the Terminator series of movies, can be understood as a critique of our blind faith in salvation through technological progress. Other literary critiques use a technique of 'imagined intercultural juxtaposition', whereby the present is contrasted with the alternative 'culture' of a more ideal or 'utopian' future society.

Futuristic thought is not restricted to the realm of mere individual imagination, influential though that may be in its own right. Such ideas also help to motivate the rise of new social and religious movements, some of which I have studied. How will the millenarian expectations created by such social movements effect societies over the coming years and decades? Will we succumb to dystopian expectations, such as the apocalyptic vision of the pre-millennial dispensationalist evangelicals, who regard efforts to avert catastrophic climate change as a misguided attempt to stop a prophesised and necessary crisis that will prepare the ground for the second coming of Jesus Christ; and who have thus supported reactionary responses such as the US-led war for oil in Iraq? Or will we be inspired by other imaginings of the future that are more constructive, in that they explore potentially viable alternative ways of life, both in theory and in practice? Will we be able to imagine a future that it is at once desirable and achievable?

Be that as it may, the imagining or active pursuit of alternative ways of life always involves a process of intercultural comparison and critical evaluation. Anthropology and the critical humanities in general can assist by analysing popular culture, religious, political and social reform movements, including the sustainability movement itself. If we chose to do so, however, we should remember that these experiments are not just interesting specimen for our butterfly collections, they address what is a genuine cultural crisis of unprecedented proportions; a crisis to which we too seek the answer urgently, as what time we still have for conscious action quickly slips through our fingers.

I discussed earlier how people derive an identity from specific personal or collective experiences and stories - with all their unique historical traumas and moments of glory. This process of self-inscription is well known to anthropologists due to the immense impact textual approaches have

had on our discipline.⁹ And here is another vantage point from where we can begin to analyse modern consumer culture. Another of our modern cultural addictions is our voracious appetite for consuming other people's stories through television and other media. What is this entertainment and reality-TV addiction all about? It is most likely a substitute for dialogue, and seeks to fulfill the need to escape the insane isolation of one's own personal story in a world where community life as we once understood it is no longer available to many of us.

Again, some of these stories may contain elements of real and tried life experiences, while others are imaginary or hyper-real. In either type of story, as in real life dialogue, there are opportunities for inter-textual comparison and critical reflexivity as well as for ethnocentric judgement or escapist exoticism. Judgement abuses comparison to feed the dysfunctional self which always needs to feel superior in order to alleviate fear, and escapism does little better because it simply replaces one identification with another until the other becomes limiting and painful as well. This ultimate uselessness of the drug of entertainment helps to explain why there is such an insatiable desire for more and more distraction, just as there is a desire for more and more material possessions. Critical reflection, however, would lead to the realisation that stories have no natural boundaries, and that one may consciously embrace the whole story that is life, rather than clinging to a particular historicized identity.

Another highly effective contribution anthropologists can make to assist in the fight against climate-change-producing human behaviour is to tell the real-life story of the first victims of climate change. Storytelling is important for human beings because it highlights the relativity of our own story and our interconnectedness with other people in our neighbourhood, our nation, and our region of the world. Indeed, many stories of climate change victims are transnational stories, which make us ever more aware of the global character of this and other sustainability issues.

⁹ Textual approaches are now spreading into other fields. A relevant example and product of this influence is the 'narrative psychology' movement (Sarbin 1986).

To raise awareness about the effects of climate change and the need for adaptation, some of the important stories that need to be told urgently include: 1) How particular rural communities in sub-Saharan Africa, Australia and in other arid parts of the world are experiencing and preparing to face the multidimensional challenge of adaptation to an even hotter and drier climate; 2) How Pacific nations are experiencing and responding to the challenges of displacement in the wake of rising sea levels (see Rudiak-Gould 2008); 3) How developing nations are experiencing climate-change related pressures as well as opportunities such as the new carbon off-set schemes (REDD) which could alter their policies concerning forestry and agriculture; 4) How people in developing nations are dealing with the potential displacement of many millions of people who live in low-lying coastal cities like Jakarta or prime agricultural production areas such as the Mekong Delta. Telling these stories, in as literarily adept and interesting a manner as possible, is one way in which anthropologists can really bring the reality of climate change to the awareness of the public. These stories should not just be fear invoking, however, as Kay Milton (2007) has pointed out. Climate change stories should also show how people in a wide range of situations and local cultures manage to adapt and survive by adopting new ways of living they already had available in their tool kit, or finding entirely new ways they had never before thought possible.

Anthropologists can also engage more directly and make such stories happen, as Graeme McRae's (2008) work in Bali shows, namely by facilitating inter-cultural knowledge transfer or by telling the story of such transfers for the benefit of encouraging others (see also MacRae and O'Kane, this issue). By knowledge transfer I do not mean development. Development is essentially a fairy tale we in the western world tell ourselves in order to whitewash what is all too often an export of our dysfunction and an extension of our greed to other countries, lest they remind us that it is possible to live by different principles. What I mean by knowledge transfer is a multi-directional exchange where everyone is a learner and a teacher. For example, travelling through the increasingly arid Murray Darling Basin in Australia, I am always reminded of the way traditional agriculture is practiced in arid central India and Eastern Turkey. Australian farmers have little cultural inclination and know-how for producing traditional dry-land crops that thrive in such conditions. Instead we keep using enormous amounts of irrigation water to grow cotton and rice as summer crops, using expensive technology to create the fleeting illusion that this is a wet environment, before the whole mirage collapses into a heap of salt-logged, sun-cracked soil, as has already happened with rice in the Riverina region. Such behaviour is astonishingly suicidal on a collective scale, and this is sadly reflected in the astronomical male suicide rates of rural Australia today.

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