

Outline of Principles of Sustainability for new students

January 2009

The unit Principles of Sustainability provides an opportunity for students to develop general insight relating to the fundamentals of sustainability thinking and action, both in preparation for studying other units in the course and as the basis for effective sustainability practice. The approach taken in the unit is founded on the view that responses to the sustainability challenges that we humans perceive, are most effective when our appreciation of these challenges takes into account the ways through which we make sense of the world and understand ourselves in relation to it. In light of this, the unit starts by considering human mind and culture from perspectives consistent with this view, as the foundation for engaging with what might be more readily recognisable as the realm of sustainability principles and concepts (ample attention is given in the unit to this realm also!). It is in this context that Lakoff and Johnson's *Metaphors We Live By*, an exploration of human cognition and the philosophy of mind, has for several years now been one of two principal texts for the unit (the second principal text being Fisher's *Response Ability: Environment, Health and Everyday Transcendence*)

This approach to studying sustainability principles is a path less travelled. It is our experience that some prospective students will find the approach is not relevant to their specific needs, but others who may not at first be sure what to make of it come to regard it as both compelling and rewarding. Students tend to gain most value from the approach when willing to leave their preconceptions (but not their critical faculties) at the door—a key attribute for effective learning, the importance of which is not restricted to this unit alone.

Most students find the unit to be both provocative and intellectually challenging; almost all students find the learning process demanding. Given this, we feel a particular responsibility to provide prospective students with an opportunity to explore what this might mean for them individually. To this end, we ask that everyone who has applied to study first reads three pieces of writing that are both related to and indicative of what will be encountered in the unit. In this way you will be better positioned to decide if the course is one for which you feel an affinity. This introduces an element of reciprocity to the application process—those who proceed will find this to be highly congruent with the understanding of sustainability principles that the unit is intended to cultivate. Our aim is to meet with you as participants in—rather than recipients of—the learning system. We hope that through this experiential approach to learning, you will come to actively embody sustainability principles as well as to conceptually understand *about* them.

Links to the readings are provided below.

Reading 1

The first reading consists of two excerpts from Lakoff and Johnson's *Metaphors We Live By*¹. People coming to the ideas in this book for the first time may struggle to get an initial foothold. Prior to looking at the reading below, a brief orientation with the concept of metaphor may be valuable. There are two clear examples of this in the previous sentences: "struggling to get a foothold" is used to create understanding in relation to the challenge of understanding itself; and the concept of "orientation", relating to the relative positioning of things in space, is used to think about familiarity with an idea. The central idea with conceptual metaphor is the understanding of one domain of experience in terms of another (often more familiar) domain.

To make this a little more concrete, consider some of the metaphors that may be immediately familiar from the realms of economics and...sustainability: people as consumers; consumer sentiment; depressed markets and economic recession; discussion of sustainability problems characterised as "doom and gloom"; ecological footprints; life cycle thinking—"cradle to grave"; recycling; triple bottom line; clean coal; and even the idea that we can "throw away" something we no longer value. You may be starting to get some inkling of just how prevalent this general device is in our thinking systems.

Turning now to Lakoff and Johnson:

Metaphor is for most people a device of the poetic imagination and the rhetorical flourish—a matter or extraordinary rather than ordinary language. Moreover, metaphor is typically viewed as characteristic of language alone, a matter of words rather than thought or action. For this reason, most people think they can get along perfectly well without metaphor. We have found, on the contrary, that metaphor is pervasive in everyday life, not just in language but in thought and action. Our ordinary conceptual system, in terms of which we both think and act, is fundamentally metaphorical in nature.

The concepts that govern our thought are not just matters of the intellect. They also govern our everyday functioning, down to the most mundane details. Our concepts structure what we perceive, how we get around in the world, and how we relate to other people. Our conceptual system thus plays a central role in defining our everyday realities. If we are right in suggesting that our conceptual system is largely metaphorical, then the way we think, what we experience, and what we do every day is very much a matter of metaphor.

But our conceptual system is not something we are normally aware of. In most of the little things we do every day, we simply think and act more or less automatically along certain lines. Just what these lines are is by no means obvious. One way to find out is by looking at language. Since communication is based on the same conceptual system that we use in thinking and acting, language is an important source of evidence for what that system is like.

Primarily on the basis of linguistic evidence, we have found that most of our ordinary conceptual system is metaphorical in nature. And we have found a way to begin to identify in detail just what the metaphors are that structure how we perceive, how we think, and what we do.

[The authors go on to explore how conceptual metaphor works in detail. For many readers, the implications for sustainability thinking and action become more

¹ Lakoff, G and Johnson, M 2003, *Metaphors We Live By*, 2nd edn., The University of Chicago Press, Chicago; chapter 1, 'Concepts We Live By', pp. 3-4 and chapter 23, 'Metaphor, Truth and Action', pp. 156-8

apparent, if they have not done so already, in the final third of the book, in the book's later chapters. We pick up the story in chapter 23, titled 'Metaphor, Truth, and Action']

In the preceding chapter we suggested the following:

Metaphors have entailments through which they highlight and make coherent certain aspects of our experience.

A given metaphor may be the only way to highlight and coherently organize exactly those aspects of our experience.

Metaphors may create realities for us, especially social realities. A metaphor may thus be a guide for future action. Such actions will, of course, fit the metaphor. This will, in turn, reinforce the power of the metaphor to make experience coherent. In this sense metaphors can be self-fulfilling prophecies.

For example, faced with the energy crisis, President Carter declared "the moral equivalent of war." The WAR metaphor generated a network of entailments. There was an "enemy," a "threat to national security," which required "setting targets," "reorganizing priorities," "establishing a new chain of command," "plotting new strategy," "gathering intelligence," "marshalling forces," "imposing sanctions," "calling for sacrifices," and on and on. The WAR metaphor highlighted certain realities and hid others. The metaphor was not merely a way of viewing reality; it constituted a license for policy change and political and economic action. The very acceptance of the metaphor provided grounds for certain inferences: there was an external, foreign, hostile enemy (pictured by cartoonists in Arab headdress); energy needed to be given top priorities; the populace would have to make sacrifices; if we didn't meet the threat, we would not survive. It is important to realize that this was not the only metaphor available.

Carter's WAR metaphor took for granted our current concept of what ENERGY is, and focused on how to get enough of it. On the other hand, Amory Lovins [1977, *Soft Energy Paths*, Ballinger, Cambridge] observed that there are two fundamentally different ways, or PATHS, to supply energy needs. He characterized these metaphorically as HARD and SOFT. The HARD ENERGY PATH uses energy supplies that are inflexible, non-renewable, needing military defense and geopolitical control, irreversibly destructive of the environment, and requiring high capital investment, high technology, and highly skilled workers. They include fossil fuels (gas and oil), nuclear power plants, and coal gasification. The SOFT ENERGY PATH uses energy supplies that are flexible, renewable, not needing military defense or geopolitical control, not destructive of the environment, and requiring only low capital investment, low technology, and unskilled labor. They include solar, wind, and hydroelectric power, biomass alcohol, fluidized beds for burning coal or other combustible material, and a great many other possibilities currently available. Lovins' SOFT ENERGY PATH metaphor highlights the technical, economic, and socio-political *structure* of the energy system, which leads him to the conclusion that the "hard" energy paths—coal, oil, and nuclear power—lead to political conflict, economic hardship, and harm to the environment. But Jimmy Carter is more powerful than Amory Lovins. As Charlotte Linde (in conversation) has observed, whether in national politics or in everyday interaction, people in power get to impose their metaphors.

New metaphors, like conventional metaphors, can have the power to define reality. They do this through a coherent network of entailments that highlight some features of reality and hide others. The acceptance of the metaphor, which forces us to focus *only* on those aspects of our experience that it highlights, leads us to view the entailments of the metaphor as being *true*.

Such “truths” may be true, of course, only relative to the reality defined by the metaphor. Suppose Carter announces that his administration has won a major energy battle. Is this claim true or false? Even to address oneself to the question requires accepting at least the central parts of the metaphor. If you do not accept the existence of an external enemy, if you think there is no external threat, if you recognize no field of battle, no targets, no clearly defined competing forces, then the issue of objective truth or falsity cannot arise. But if you see reality as defined by the metaphor, that is, if you do see the energy crisis as a war, then you can answer the question relative to whether the metaphorical entailments fit reality. If Carter, by means of strategically employed political and economic sanctions, forced the OPEC nations to cut the price of oil in half, then you would say that he would indeed have won a major battle. If, on the other hand, his strategies had produced only a temporary price freeze, you couldn't be so sure and might be skeptical.

Though questions of truth do arise for new metaphors, the more important questions are those of appropriate action. In most cases, what is at issue is not the truth or falsity of a metaphor but the perceptions and inferences that follow from it and the actions that are sanctioned by it. In all aspects of life, not just in politics or in love, we define our reality in terms of metaphors and then proceed to act on the basis of the metaphors. We draw inferences, set goals, make commitments, and execute plans, all on the basis of how we in part structure our experience, consciously and unconsciously, by means of metaphor.

Reading 2

The second reading is a speech, titled “CO₂ – Kick the Habit: From treating symptoms to long-term recovery”, presented by Josh Floyd on 4 June 2008 at an event to celebrate World Environment Day. The event was organised by Engineers Without Borders Australia and Parsons Brinckerhoff in Melbourne:

In considering how to approach this brief presentation on climate change response, it struck me that the theme for the evening, “CO₂ Kick the Habit”, really pointed to some rich territory, so I’ve taken this very literally as my inspiration tonight. The reason that this really grabbed my attention relates to the importance of understanding the origins of our global climate change situation as comprehensively as possible if we’re going to develop genuinely effective responses. The title “Kick the Habit” obviously draws on the metaphor of addiction as a way of making sense of the global climate change situation. There are some important dimensions highlighted by the addiction metaphor that are often overlooked in understanding this situation.

The first thing that it draws attention to is the relationship between cause and effect. In this regard, I’d just point out that the title is a little misleading. Carbon dioxide of course isn’t the habit itself, but a physical side effect of our collective habitual actions. So drawing on the health and well-being characteristics of the addiction metaphor, carbon dioxide build-up in the atmosphere can be thought of as the immediate cause of the symptom that is the changing global climate system. But to get better insight into the nature of the disease we really need to look for the deeper, underlying causes.

What then is it that we’re actually addicted to? What is the particular addiction associated with our climate change situation? I suspect that if we went around the room, we’d get a wide range of answers to this question. What these answers would likely have in common though is a focus on some external agent, something outside of us that we identify as the cause of the problem. The danger in this is that we end up treating the habits that lead to excessive carbon dioxide emissions in much the same way that we deal with substance or gambling addictions by limiting access to drugs or casinos—these of course are important aspects of a more comprehensive response, but very limited on their own.

The other side of the coin in terms of leveraging the addiction metaphor to gain deeper insight into our climate change situation is to consider what it might reveal about us as “creatures of habit”. What do we know about addiction that could be helpful in better understanding the underlying causes of our situation? Addiction is typically characterised by behaviour that is harmful to the individual who engages in it and that also has wider social impacts, but which the addict feels *compelled* to engage in anyway—in other words, the behaviour from the addict’s perspective is involuntary or outside his or her immediate control. We also know that this habitual behaviour is seen as a way of alleviating stress associated with experiences of anxiety, depression or emotional pain. In relation to this, I happened to read recently a very timely article on the development of a comprehensive model for understanding and responding to addiction. I’ll read a short excerpt from the article that is particularly relevant to tonight’s conversation:

Now let us look at etiology [etiology means the origin and causes of disease].

Treating symptoms is often necessary in a triage situation but insufficient in terms of long-term recovery and optimal health. The five causes that must be addressed in an Integral [or comprehensive] Recovery model are:

- Chemical imbalance in the brain
- Unresolved trauma from the past
- Negative narrative stories about one’s self and the world
- Inability to cope with the present

- Lack of purpose, meaning, or connection in one's life

One or any combination of these causal factors can lead to an addictive relationship with the particular substance. Once the client has crossed that line from use to dependency, the client and the treatment team must deal with the fact that the midbrain or the reptilian stem has been hijacked and is dominated by a powerful need to use and take the addictive substance, which in the addict's [direct] experience, is equated with survival itself. In other words, the felt reality of the addict using drugs is such that taking the substance is no longer a lifestyle choice but a survival necessity. This is often a hard concept for the non-addict to understand, which has led to a great deal of prejudice and unskilful means in dealing with the problem of addiction.²

There are a couple of very important points that I'd like to draw from this, before moving on to look at what we might need to add to this specifically in relation to climate change.

First, the view expressed here recognises that a focus on behaviour alone is not sufficient. In order to understand harmful behaviour, we need to understand something of the interior experience associated with that behaviour. For example, what might be the connection between lifestyles and associated behaviour that are driving increasing CO₂ emissions, and our own "inability to cope with the present" or lack of purpose, meaning or connection in our lives?

Second, the view expressed in the excerpt highlights the importance of trying to understand the motivation for harmful behaviour from the perspective of the person engaging in that behaviour. This is particularly important in relation to climate change, as for most people going about their daily lives, it is not immediately apparent that their actions have any ill effect. In most cases, there are simply no means available to see the harm that results. This is where the value of initiatives such as the Victorian Government's black balloons campaign comes in—but we need to pay much more attention to creating such public metaphors and the more formal indicators that go along with these that can allow us to see the impacts of our apparently benign actions more clearly.

Given the scale of transformation that human activity systems will need to undergo in adequately responding to the climate change challenge, it's inevitable that our taken-for-granted expectations about what is normal, and even about what is ultimately good, must be seriously challenged. To do this skilfully though, we need to go about this process of transformation in ways that honour people's existing ways of life as inherently meaningful to them, rather than dismissing these ways of life as aberrant when viewed from a more comprehensive ecological perspective.

So, individual behaviour and meaning-making need to be considered together if we are to better understand our climate change situation. But this is one part of the story only, because this individual aspect of the situation always occurs in collective contexts. The meaning that each of us creates as we go about our daily lives, and the actions that we take as we try to make sense of things, are intimately linked with our cultural settings— that is, with our shared norms, beliefs and the very language that we use to negotiate this cultural space with others. And they are also linked with our vast networks of physical and institutional infrastructure. All of this has great power to influence and even determine what we find meaningful in the first place, and the actions associated with this "meaningfulness" that we engage in together.

The collective web of norms and institutions that we live amongst and recreate day-to-day as we go about our lives provides a myriad of incentives for maintaining our long-established

² Dupuy, John and Morelli, Marco 2007, 'Toward an Integral Recovery Model for Drug and Alcohol Addiction', *Journal of Integral Theory and Practice*, vol. 2, no. 3, pp. 26-42.

habits of behaviour and disincentives for changing this behaviour. And with regard to our increasing concern in relation to climate change, many of these incentives can be considered *perverse*. In other words, these incentives that are “built in” to our social infrastructure actually encourage behaviour that increases our carbon dioxide emissions. I’ll conclude by having a look at some of these in a little more detail.

In 2007, Chris Riedy at the Institute for Sustainable Futures at University of Technology Sydney updated an earlier study into Energy and Transport Subsidies in Australia, and I’ll draw on this for examples of how our formal social institutions are structured in ways that drive our climate change-causing habits. According to Chris’s research, in 2005 and 2006, subsidies in support of fossil fuel use in Australia amounted to between 9 and 9.8 billion dollars. Of this, subsidies that increased GHG emissions amounted to between 8 and 8.8 billion dollars, with between 6.4 and 7.2 billion dollars of this classified as *perverse subsidies*.

By “perverse subsidy”, the study refers to situations even more perverse than the type of perversion that I described before. In the study, a perverse subsidy is one that actually results in economic consequences counter to the original intent, as well as providing a “hidden” incentive for activity contributing to increased GHG emissions. The study goes into detail with respect to the full range of subsidies, but there’s one that I’d like to single out for special attention as a classic example of a perverse incentive for GHG increasing habits, and this relates to the method for determining FBT on company cars, which by the way is the largest of the subsidies for fossil fuel use at up to 1.2 billion dollars. I’d expect that many of you here will be familiar with this already, and it’s now coming more under scrutiny within the federal government, although the opportunity to address it in the recent budget was passed up. For those of you less familiar with how this works as a perverse incentive, I’ll read a summary from the report:

“The largest of the subsidies is associated with the use of the statutory formula method for determining FBT on company cars. Currently, employees who are provided with a vehicle by their employer as part of their salary package do not need to keep a record of their business and personal use of the vehicle. Instead, they can use a special formula to calculate their tax liability. This formula assumes that the further a person drives in a year, the higher their business use of the vehicle and the lower their personal use. Their tax liability is based on their personal use, so there is a strong incentive to drive further each year to reduce the tax paid. This is a substantial subsidy that encourages higher consumption of petrol and creates a higher level of greenhouse gas emissions.”³

So this is just one of the huge array of more formal structures that shape our behavioural habits linked to carbon dioxide emissions. Even more extensive are the informal structures, such as our beliefs about safety, our expectations of what constitutes adequate quality of life, and especially our obsessions with convenience, which is almost always narrowly defined to exclude the long term inconvenience of breakdown in our physical infrastructure and global ecological systems.

I hope this might act as useful introduction to the sorts of areas we might look at if we really are to kick the habit and promote long term generative health and well-being for ourselves as individuals and for the collective social and natural systems with which we are inextricably interdependent.

³ Riedy, C 2007, ‘Energy and transport subsidies in Australia—2007 update: Final report for Greenpeace Australia Pacific’, Institute for Sustainable Futures, Sydney, p. 9.

Reading 3

The third and final reading is an extended version of an opinion piece by Frank Fisher that appeared recently in *The Age* newspaper (Fisher, F 2008, 'We languish in our habits and must see life afresh', *The Age*, 6 November, 'Business Day', p. 10):

A few weeks ago former deputy premier and environment minister John Thwaites spoke at Federation Square about social justice and climate change. He was dressed in a neatly ironed shirt and suit. Tim Costello informed us that John's new boss, the Monash Vice Chancellor, would be late because he was traffic-jammed on the freeway. Meanwhile the VC's boss, the Chancellor, beamed from the pages of Monash's 50th anniversary publication proudly informing that he was Australia's first booking on Branson's Virgin Galactic space venture.

Good teaching rests in doing as one teaches. So, the contradictions in heating the planet by

- ironing clothes
- driving, at peak period, into the city in parallel to a frequent, 30 minute bike-rail connection between Monash and Federation Square and,
- travelling into space as a leisure activity, when the global heating consequence is "off-the-planet"

are not good teaching examples.

All are "necessary" because we are trapped by the ways of thinking that enable our lives. To change the way a mature adult sees and does in the world requires unpicking and restitching a myriad (pre)conceived notions, behaviour patterns and social supports. Most are unrecognised and habitual.

All are embedded or vested in the very reasonable interests of "proven" successful lives. Indeed these lives are reflections of that very success!

Then, along comes a new set of social priorities which changes the criteria of success. In fact, at Monash it appeared in that vintage year for environment, 1972, when its M.Environmental Sc. degree got off the ground. 36 years later the behaviour of most "Monashians" remains remarkably untouched. Powerful stuff, those entrapping structures!?

Should we wish to climb out of the terrestrial diseases that failure to change our patterns of thinking and their associated behaviours have created, four successive changes confront us: recognition and whistleblowing, political action, intellectual transformation and finally changes in the way we understand ourselves, our beings. We are well into the recognition phase, but so was Rachel Carson (*Silent Spring*) half a century ago. Political change has begun, but without intellectual change it simply leads to displacing our problems from one place to another, one time to another and so on. We can do better!

28 years ago that Masters degree introduced its students to the third process: intellectual transformation. Rather than struggling to live in a world full of contradictions and "perverse incentives" (PIs), so ably sketched by Tracee Hutchison (5/07) and Catherine Deveny (9/07) that pit individuals against "the system", a new course set out to identify PIs and propose ways to unwind and replace them with ways of doing things consistent with sustainability. Thwaites himself identifies one in his article on 3/07: overcoming the prohibition against drying washing in the sun on apartment balconies! That requires a "double take" that prompts us to think, not about the drying, but about the basis of the prohibition and how to change it. As a society, it's time for the biggest double take yet. Here are some parts of it:

Ecoliteracy. It is not obligatory anywhere in our education system. The skills we currently train for, enable us to fit aspirations of permanent growth. Our social infrastructures suppress virtually anything that would inhibit it. So, it's still legal to sell and market cigarettes and it's reasonable for a café owner to distrust a customer who requests coffee in her own mug and for the customer to sue the café should her (dirty) mug make her sick. A new form of mutual trust, here in the

cleanliness of our mug as well as in the café's coffee, is needed. In this case the upcoming review of Victoria's Food Act (1984) presents an opportunity for us to make it sensitive to such new priorities. Likewise, the third edition of CSIRO's *Total Wellbeing Diet* book will finally really be "total" when it includes the environmental contexts of eating.

Permanent material growth as an aspiration. This now no longer makes sense! Other routes to satisfaction, wealth and to dissolving inequity must be found, democratically. Raw population growth as encouraged by former Federal Treasurer, Costello, is one of the profoundest of PIs in a country where each citizen generates such an unsustainable *ecological footprint*.

Convenience understood as the minimisation of human effort. This must be replaced by maximising wellbeing defined as person/planetary health. The push button world where even the number of buttons is minimised - one switch for all lights; automated flushing of urinals; airconditioning whole buildings rather than occupied rooms - must go. Similarly, magic bullets in nutrition and disease management are inadequate by themselves. The "diabesity" epidemic is a failure of everyday intellectual and social forms.

Measures and Standards inconsistent with sustainability. Presenting e.g., greenhouse gas production by immediate source, as the Australian Greenhouse Office does, misleads. It says "cars produce 8% of greenhouse gas emissions ... electricity is the worst [greenhouse] offender." ["Fuel for Thought", *Age "Drive"*, 5.4.08, p.1]. This is a profound understatement, unfair to the electricity industry. Cars are *made*, maintained etc. and were these energy uses along with the energy costs of their infrastructures attributed to cars instead of power stations we would have a much more useful tool to assess our commuting demands. Our Cancer Council still raises money with car-raffles because we do not yet have unambiguous indicators that say that cars, like cigarettes, generate carcinogens and that planetary heating is a community-wide concern even if not directly carcinogenic. While one might, and should, argue about the basis for calculating our ecological footprint, we *should* calculate it and it should become as commonsensical to citizens as the dollar - whose value is *also* based on interpretations and bargaining!

Formal and informal institutional perversities must be exposed and changed. C.f. "cheaper by the dozen" and recognition of earnings as against savings. In the latter case, on an intravenous drip at some \$3000 per week, the government would support me. Managing alone with special foods, chronic diarrhoea and 40 pills/day, i pay and no-one recognises what i save the Commonwealth. Energy corporations' incomes derive from selling kWhours rather than energy services which would enable them to be paid for energy in a context of conservation advice! At a detailed level, Fringe Benefits Tax rewards excessive car-use, frequent flier points reward flying, 4WDs attract reduced tax, long-distance trucking is favoured over rail freight, personal travel cost reimbursements are made to private car users but not to cyclists nor to users of public transport periodical tickets etc. etc. And then there are endless physical perversities. C.f. old Royal Melbourne Hospital's main stairs which are at its heart and well worn - their flooring always in need of replacement. In new St. Vincent's' the stairs are at the back - unseen and unused. Then there are the gyms with car parks and escalators out front ... but no bike-racks!

Perverse incentives generate *cognitive dissonances* (confusions) that result in us sticking to current practices rather than making changes. The entrapping "devils we know" seem preferable to the confusing sustainable options.

To live sustainably we must identify and transform existing social and intellectual practices, making them consistent with sustainability. New intellectual and social lenses are needed to correct the astigmatism in our current ways of seeing!