

Leadership for Sustainable Development

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Discussion Paper¹

1. Introduction

There is a considerable literature on leadership, but almost all of it concerns leadership within organisations, whether political parties, businesses, or sports teams. While much of this will be relevant to work for sustainable development, since much of that will be in an organisational context, work in the sustainable development field is unusual in a number of respects. This paper begins by summarising some of the key issues that arise in this context. It goes on to identify some important challenges for leaders who work on these issues before returning at the end to relate these to the wider literature on leadership.

2 Summarising the challenge of sustainable development

Humanity is using around 2.3 hectares of the biosphere per person, compared to about 1.9 hectares estimated available – a 20% overshoot. It looks likely that by 2050 around 2 Earths would be required to support the world's growing population. This is clearly impossible and an urgent change of direction is required.^a

'Developed' countries typically use five or six times as many resources per head as countries like the Gambia or Bangladesh. Lifestyles in the developed world are being paid for both by future generations and by the poor of our own generation. A change of direction will not be easy until basic needs are met for all.^b

By how much do we need to reduce our demands on the biosphere? Probably to the level where we are living off the Earth's income, not its capital. We need to transform our infrastructure – hospitals, agriculture, homes and the like – to allow us to meet needs that are not being met at present, but within the biosphere's constraints.

Sustainable development requires a rapid and radical reduction in our demands on the biosphere, achieved in parallel with an increase in the standard of living for the poor of the world. A sustainable world is said to be possible and it could be highly attractive, even in the 'developed' world.^c

A thrilling, perhaps a daunting, challenge! There are many contextual barriers to taking it on, which will be briefly summarised in the next section. Three *conditions* stand out as being required in taking on these barriers and in so making progress towards meeting human needs in a world that is environmentally sustainable. These are: a) 'awareness' of what is happening and of what is required, b) 'agency' – the ability to find a response that seems meaningful, and c) 'association' with other people in groups and networks. Each is necessary but insufficient in isolation, which means that any change programme needs to work across all three. Doing so successfully requires a key *process*, that of (d) 'action and reflection'.^d What do each of these require of leaders? This will be explored in the remainder of the paper.

¹ This paper was commissioned by LEAD International, to whom I owe thanks.

3. Mapping the contextual barriers to change

If our development is currently both insufficient and unsustainable, in that the vital human needs of many of this generation are not being met and that the capacity of future generations to meet their own needs is being systematically undermined, what stops people from addressing the problem? There are many *contextual barriers* to change. Such barriers can arise both at the *personal* level and at the *collective* level. They can consist either of *subjective* barriers (for instance, ways of seeing the world that prevent us from seeing what might be possible) or *objective* barriers (for instance laws or systems of technology that ‘lock’ unsustainable practice into place). These can be mapped onto a simple 2 x 2 matrix as developed by the American author Ken Wilber.^e

1. Individual subjective barriers	2. Individual objective barriers
3. Collective subjective barriers	4. Collective objective barriers

Figure 1. Ken Wilber’s four quadrant structure^f

Examples of *Individual subjective barriers* include our limiting personal values, worldviews and assumptions. If, for example, we see ourselves as powerless, or as incapable of change, then we will find it hard to take on a huge issue such as sustainable development. If our personal values do not extend to caring about people in other parts of the world, or future generations, then we will be unlikely to take their needs into account.

Examples of *Individual objective barriers* include the limitations of one’s role, skills, knowledge, socio-demographics and relationship set. If we do not have the skills to build a low-carbon building, we need to acquire them. If we are not used to speaking in public, we may find it difficult to gather support from other people.

Examples of *Collective subjective barriers* include group cultures and shared norms. If people in a community are exceptionally status-oriented, for instance, this is likely to be a challenge to work on sustainable development. If a dominant religious belief is widely interpreted in a way that does not take account of environmental sustainability, again this will seriously limit change.

Examples of *Collective objective barriers* include the commonly used ‘PESTLE’ of corporate strategy: political, economic, social, technological, legal and environmental blockages to change.^g If, for instance, a technological system is widespread and expensive to change, and uses large amounts of energy (as does petroleum distribution), that is a major barrier to change. If a legal system prevents more sustainable products from being specified (as some think the World Trade Organisation sometimes does), that is another significant barrier to change.

The need to keep looking at the wider context when a contextual barrier arises, to identify ‘a difference that might make a difference’, is one of the factors that makes change work on climate change intrinsically strategic. People who successfully lead programmes for change on sustainable development need to be able to recognise and address such contextual factors.^h

4. Condition 1: Awareness

4.1 Levels of awareness

In taking such issues on, they must first be recognised. What types of awareness matter, why, and what issues arise in developing them?

- *Awareness of the agenda.* This covers basic awareness of the issues: e.g. of the concept of climate change, that there are issues of poverty in the world, etc. If people are not even aware of such issues it can be hard to raise them with any legitimacy. In the UK, 99% of people have heard of climate change, 85% agree that it is happening and 71% agree that humans are causing it: a level of ‘brand awareness’ that rivals even Coca Cola!ⁱ While the situation in other countries may be different, this does show that there need be no overwhelming difficulties in raising such awareness. While almost no-one has heard of the phrase ‘sustainable development’, people do recognise component parts such as pollution and easily understand, and tend to agree with, the overall argument.^j
- *Awareness of its scale, urgency and relevance.* Although most people agree (for instance) that climate change is happening, many fewer recognise that it is an urgent problem that concerns all people, even ourselves. For instance, most people (as many as 85%) wrongly think that the effects of climate change will not be experienced for generations.^k Being aware of scale and urgency helps to stimulate responses, but raising awareness is hard: a) people worry more about local issues than global or regional ones;^l b) many people seem to be more aware than they acknowledge but avoid thinking about this because it is too painful.^m
- *Awareness of the structure of the issues.* The sustainability crisis is complex with many delays and feedback loops, both within the non-human world and when we bring humans into the analysis. For instance, there are significant delays both in climate impacts and in generating human responses. These need to be understood for responses to be well targeted. Few people have this awareness and developing it can be a challenge. Research shows that even postgraduate students with good scientific degrees mostly do not understand key delays in the climate system.ⁿ One possible explanation for this is that the capacity to think in terms of systems structure is not only an issue of intelligence: it is also linked to personal maturity and so develops over the course of a life.^o
- *Awareness of how our mental models affect the issue.* Mental models (sets of assumptions about the way the world works) are considered one of the most powerful contextual factors that keep systems from change. This is because they both condition what we even see as a problem, and what we consider as a possible response. When we look at them critically, much more creative responses can become possible.^p There seem to be very significant mental models that affect the sustainability crisis. One commonly held, but seriously wrong, assumption of critical importance, for instance, is that humans can make changes to natural processes without causing worse problems.^q One of Barry Commoner’s ‘four laws of ecology’, on the other hand, is that ‘*Nature knows best*’, and research supports this view.^r It seems clear that decisions are better taken by people who know this and exercise appropriate humility when they act.^s There is also evidence that people with this perspective can develop a deep and lasting motivation to act. It is clear that such awareness can be developed. On the other hand, some may regard it as threatening, perhaps because they have come

to value their particular world view more than reality itself.¹ (This aspect of awareness is addressed further in §8 below.)

These four levels of awareness are of increasing importance and seem to be of increasing difficulty to acquire. It would be unrealistic for every person to have them, but work for sustainability needs them all.

4.2 Leading awareness-building

What does the awareness agenda mean for leaders? As we have seen, it can be quite easy to get across the superficial information about sustainable development issues. Going to the deeper levels is harder.

There is of course no need for the leader necessarily to have highly developed awareness in every area herself.² Indeed the analysis summarised above suggests that for most people this would not be at all easy. However it is important that she knows where her own awareness is limited and is prepared to make use of others where necessary, also that she does not block, but rather helps, the development of awareness in others and its dissemination when appropriate.

4.2.1 Working to develop our own awareness

Neither structural understanding, nor appreciation of scale and urgency can be developed unless we are prepared to face some difficult information. Interviews with senior environmental leaders suggest that they are deeply aware of the seriousness of the situation, much more so than people who are not in a leadership role. Most of these people have simply looked at the information for long enough and reflected sufficiently to understand what it means.^u

Some fear that this risks depression. Ecologist and systems thinker Joanna Macy argues exactly the opposite. She thinks that most people put considerable mental effort into suppressing awareness; acknowledging what is happening to the world therefore releases energy. She provides helpful exercises, so-called ‘Despair and Empowerment Exercises’, that can be used to this end and which also seem to be useful in developing creative visions for the future and in various other ways.^v

4.2.2 Helping the development of awareness in others

If the leader has done this, she will be much less likely to block work on awareness in others, because she will know that she is able to face the issues herself. How might she develop it more actively in others?

A key argument of this paper is that she will do so by ensuring that a) there are opportunities for meaningful agency and that appropriate association with others is offered. However it is not enough to do this: the challenge to build awareness must be taken. In doing this, it seems a) to be most effective to offer information in a form that relates to people’s everyday lives and b) to do so in a progressive way.

As an example, the climate change mitigation agenda is very large-scale and abstract for many people. Adaptation (strengthening buildings, doing what we can to stabilise ecosystems) relates directly to people’s lives and so is more likely to be seen as relevant. It would of course be a problem if awareness never progressed beyond that point, for mitigation (reducing emissions) is even more important in the long run, but adaptation offers a relevant way into the issue that also opens up issues of scale and urgency and so can provide a bridge into increasing systemic understanding.^w

² I have chosen to use the feminine gender to avoid the need for continually using ‘his or her’, etc.

As a general rule, it seems best to introduce information from a credible source (perhaps the IPCC) in a form that is easy to comprehend. We can then ask people to make sense for themselves of how it affects their lives. To spell the implications out seems to reinforce resistance.

Underlying structure can be explored through simulations: these can also provide a safe environment within which mental models can be surfaced and explored.^x

5. Condition 2: Agency

5.1 Agency: the ability to do something meaningful

There is very strong evidence that working to build awareness in isolation does not stimulate behavioural change.^y Indeed it usually seems to be counter-productive.^z This is because people seem to be unwilling to become more aware unless they can find a response that might make a difference, unless they can find meaningful 'agency'. If they can find it, people seem more able to bear the burden of awareness.

As with awareness, agency comes at different levels. On an issue such as climate change, for instance, it might mean trying to get others to act (by signing a petition, perhaps), reducing one's own carbon footprint through energy efficiency measures or through changes to purchasing behaviour, taking action at work or in one's community, or actively engaging in or with the political process. Typically there will be opportunities for agency at different levels. On some issues, one may have greater control but payoffs may be less significant. On others the opposite may be true.

5.2 Leading the search for agency

In many respects, finding meaningful 'agency' is the classic leadership responsibility: in the face of all these concerns, what is it skilful for us to do? How can we make a difference? Helping a group or another person to discover agency is subtle work and can be very rewarding. The leader needs to pay close attention to the personalities of the people with whom she is working. What do they regard as meaningful? What might it be realistic to ask them to do? What help might they need?

A window of significant agency is sometimes present, but only for short periods. When designing a building, for instance, it is very hard to make a major difference even during construction (still less once it is built) but it is potentially much easier at the design stage. These fleeting opportunities are often missed by people who do not have sufficient awareness to recognise them without help. To take advantage of them, the leader needs both to have access to good networks and to have done the work of spotting some of the likely opportunities ahead of time. This does require some thought: where *might* there be agency, and how might that become possible? Leadership requires a blend of vision (to see the opportunities) and tactical skill (to realise them).

As noted, a great advantage of working on the climate change adaptation agenda is that meaningful action can be much easier to find than for mitigation. We can indeed make schools, hospitals and houses much safer, if only for the coming generation. This is a key enabler of the development of wider awareness, for one cannot look for long at adaptation without realising that significant mitigation is also needed, and quickly.

6. Condition 3: Association

6.1 Why association is so important

On huge issues such as climate change, or absolute poverty, most things that are ‘meaningful’ are very difficult unless we do them with others. For instance, if a European person wants to reduce carbon dioxide emissions alone, he might only be able to influence perhaps six tonnes per annum in his own household, and reduce by perhaps half of that, whereas the global reduction required is said to be some 3.8 billion tonnes, or perhaps as much as 6 billion.^{aa} If he thinks of himself as a manager in a company, however, he may easily be able to influence several hundred thousand tonnes; in another context perhaps even more. This shows how developing agency requires ‘association’, the skill of working with others.

Research supports this view: in a large study the distinguishing feature of people taking environmental actions was that they were in strong working groups.^{bb} This far outweighed the influence of their level of awareness (when taken in isolation) and a whole battery of socio-demographics (age, gender, education, etc.). Association in groups can support wavering willpower; working with others can bring a variety of perspectives to an issue and so lead to better decisions. For all these reasons, association is at the heart of work for sustainable development.

Almost any piece of work will identify some issues that can easily be addressed but also other important ones that lie outside the boundary of the work as originally defined. Thus, for instance, a project to improve sustainability design in a construction company might identify both internal issues (e.g. training, project review processes, etc) and external ones (e.g. poor quality specification by clients, ineffective Government purchasing processes, etc). This means that the sustaining of agency over time typically requires developing new association with different people over time.

Association works both ways: it can empower, but it can also constrain. It empowers when we are able to mobilise wider support for action, or participate in a good group ourselves; it constrains when the natural conservatism of groups works against change.^{cc}

Not all association needs to be in strong working groups. The ‘*Small World*’ phenomenon (sometimes known as *Six Degrees of Separation* or the *Tipping Point*) has recently been recognised as a significant and perhaps even necessary enabler for transformational change. In a ‘small world’ (which might be of any size, potentially even global in scale) information moves both between and within social groups (for instance organisations or communities) very quickly and it is therefore capable of much more rapid change. In the emergence of a small world, ‘weak’ association (random chance encounters) is just as important (although it does not need to be as frequent) as the ‘strong’ association that applies within an organisation, a community or even an action network. If either is absent, the small world will not emerge. Of the two, however, the stronger ‘association’ within working groups should be the priority for most people for most of the time.^{dd}

6.2 Leading association with others

There are, therefore, several key responsibilities in developing association:

- Forming working groups or other forms of ‘strong’ relationship with an appropriate mix of expertise and awareness to develop significant agency;
- Ensuring that the full range of perspectives and abilities in the group is used as far as possible;

- Working at the boundary of the working group, developing new relationships to increase and extend the group's agency, or forming new groups as appropriate;
- Helping working groups stay connected to awareness and agency rather than drift back to the status quo.
- Finding appropriate 'weak' association by networking widely where appropriate.

For 'strong' association, it is important to develop strong, trusting and supportive, yet appropriately challenging and stimulating, relationships within working groups. It is helpful to recognise that groups develop in predictable ways during their life, with certain behavioural patterns taking precedence at each stage (though these might emerge earlier or later).

One well-known five stage model of group development is as follows:

1. **Inclusion.** Group structure is each person for him / herself; Behavioural pattern is safety vs. anxiety. The leader must resist colluding with over-dependency (being tempted to act as a surrogate parent to the group) while also containing anxiety, particularly when faced with a potentially disturbing task agenda.
2. **Inclusion / influence.** Group structure is pairing. Behavioural pattern is similarity vs. dissimilarity. The leader may have to put up with a good deal of criticism at this stage, particularly if she has been successful in resisting the group's earlier wish for her to take over all responsibility.
3. **Influence.** Group structure is clique formation. Behavioural pattern is support vs. panic. There may be conflict within the group at this point, also conflict between the group and the wider organisation. Leadership begins to be shared. The leader may need to represent the group as it struggles to gain the resources it needs to be effective.
4. **Influence / intimacy.** Group structure is beginning to encompass the entire group. Behavioural pattern is concern vs. isolation. The group is now able to share responsibility. The leader often feels superfluous but her qualities are often very highly appreciated at this stage. By this stage the full challenge of what the group has taken on will be becoming clear to all and the leader may be in a position to share her aspirations in more depth.
5. **Intimacy.** Group structure is goal-directed task group formation. Behavioural pattern is interdependence vs. withdrawal. The leader is a fully-functioning member of the group, but with certain specific responsibilities.^{ee}

How might sustainable development differ? No formal studies have been done, but there are some likely differences. First, the initial anxiety is likely to be greater because there will almost certainly be some unacknowledged resistance among group members. This may increase initial dependency: e.g. unrealistic expectations on the leader. Second, because the relevance of the challenge is not usually widely recognised, the leader is likely to have a hard job in any fight for resources (typically in stage 3). Third, when the full scope of the challenge becomes clear (around stage 4) there may well be some further resistance. More work is needed on this.

7. Working across the three conditions

7.1 The three conditions as mutually interacting

Thinking of these three conditions, it is easy to see how change arises and why it sticks so easily. The conditions interact, each potentially reinforcing changes in the others. If one of the three conditions remains stuck for long, development of the other two will be harmed:

- If there is association and awareness, but agency has not been developed, what is left will be no more than a talking shop;
- If there is association and the opportunity for agency, but the opportunity to develop awareness has not been taken, then actions will tend to miss the point and might even be trivial.
- If there is awareness and agency, but no association with other people, we have the isolated activist, probably ignored and almost certainly increasingly stressed.

None of these seem to be useful positions: any coherent strategy for change needs to address the three conditions in parallel. It may also explain why organisations often seem to make a change but then do not maintain the progress. Sometimes this can be a useful hiatus, allowing actions to catch up with changes in thinking, new skills to be learned, and so on. Often, however, programmes stagnate badly or even revert.

7.2 Leading integration across the three conditions

The argument of this paper is that change work on sustainability will usually fail unless the three conditions are addressed in parallel.

In projects, the leader must assess which of the three conditions is least well developed, and take appropriate action. For instance, there may be agency and association but awareness may need to be developed (this is quite likely in an organisation that is planning a major project, where there will very likely be brief opportunities to act at relatively little cost). Alternatively, there may be awareness and potential agency, but association may need to be developed (a likely situation where a person can see what *ought* to be done but is not connected to others who might help make that possible). Again, there may be awareness and association but agency may need to be developed (in this situation, people often need help to develop a more subtle appreciation of the options for intervening, often by seeing more clearly how their own actions, or inactions, contribute to the situation and by seeing how they might behave differently).

Of course, once a limiting factor is addressed, another will soon emerge. It is therefore also necessary to consider future limiting factors and take preparatory measures.

At the end of a cycle of work, when agency has been found at one level (for instance by taking action within an organisation) but not at the next (the wider context), the leader will need to decide whether this group is capable of more at this stage or whether a pause is needed while earlier insights are turned into action. If the latter, she must decide whether she, or another group, has the resources to address the remaining issues in a new context and, if so, where and how that process might begin.

8. A key process for unblocking change: Action and reflection

8.1 Blocks to change

At some point, whether or not people are aware of them, mental models are likely to become a significant constraint. Organisations and other social groups tend to act in ways that are self-reinforcing.^{ff} Mental models are taken for granted and people who try to challenge them are gently, or sometimes not so gently, brought back into line.

The assumptions of a group are reinforced in the smallest interactions in ways that are often below the surface of consciousness. The feminist movement, for instance, has shown how the subordination of women has been maintained through gendering of language and in countless other subtle and not-so-subtle ways.^{gg}

As noted, practice in most mainstream settings rests on a set of assumptions that are highly questionable in the context of sustainable development. For instance, the value of economic growth is seldom questioned. Values are seen as separate from data. Humanity and (particularly) the economic process are typically seen as disconnected from nature rather than embedded within it. GDP is seen as an acceptable indicator of development. And so on. All of these can be seriously questioned in the context of sustainable development.^{hh}

We need to learn to hold our own assumptions inquiringly and to help others do likewise. This is why the process of ‘action and reflection’ is so important.

8.2 Action and reflection: the gateway to ‘double loop learning’

Change work often starts with a question – for instance, ‘*How can I...?*’ or ‘*How might we...?*’ In the case of sustainable development, this question might be very challenging, such as: ‘*How can we cut per capita demands on the biosphere by over 50% within 50 years while simultaneously increasing the standard of living of the world’s poor?*’

Faced with such a question, we choose to change something, then we act, then there are consequences of our actions (and perhaps other things that happen) and so we discover things. This might lead us into further questions and actions, and so on.

This is known as ‘single loop learning’ and it is often shown as a diagram:

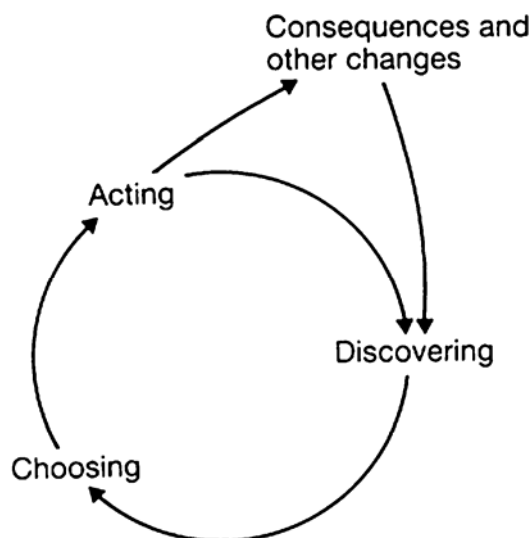


Figure 1: Single loop learningⁱⁱ

This shows how important action is. Unless we act, we cannot learn and so cannot improve. However sometimes change does not seem to progress as we might expect. We try harder but things do not improve, and may even get worse (as perhaps in the field of sustainable development). This is a good signal that underlying mental models may be part of the problem, perhaps leading us to constrain the actions that we consider. In such cases, we first need to reflect deeply to discover what our mental models are, and then consider whether they serve our purpose. We can then consider changing them so that we can conceive of new ways of acting. This is called ‘double loop learning’.ⁱⁱ

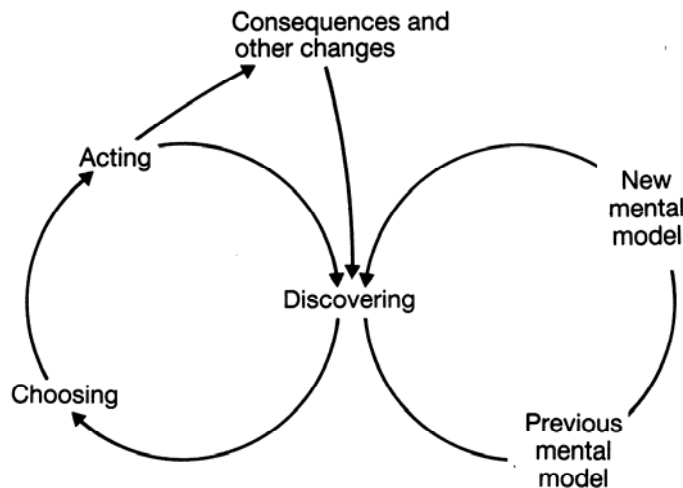


Figure 2: Double loop learning

This is why reflection is so important in significant change. In double loop learning, what we are interested in is both inside ourselves (how we think) and also external (what happens when we act). Uncovering our deeper assumptions or mental models is usually considered to be a hard, but a very important, thing to do. It is hard because most of us take them for granted – it is hard to ‘see’ them. It is important because our whole approach to a problem is ‘framed’ by the way we see it. If we can see an issue differently, then we can be much more creative about it.

This means that there is a key *process*, ‘Action and Reflection’, in work for sustainable development to set alongside the three key *conditions*, ‘Awareness’, ‘Agency’ and ‘Association’.

8.3 Leading the process of action and reflection

To lead this important process it is imperative that the leader is prepared to see herself as a learner and to demonstrate this to others. She will respect her own competence (as that of others in her team) but also recognise that she too has important ‘learning edges’ that she will explore without appearing defensive. She will see her own need to learn as very great. This is not just a slogan: to be in the position of leading at all, she will be capable of operating with some effectiveness in the social systems that she wishes to transform: she will, therefore, herself almost certainly also share some of their underlying assumptions, many of which will need to be let go of. Seen this way, frustration at lack of progress can be welcomed, for it probably points to interesting mental models.

She will see transforming herself and transforming social systems as two sides of the same coin. If she can demonstrate this, then she can help create an environment in which at least some others feel able to follow the same path. She can also welcome others to the great work of transformation: since nobody knows exactly what we need to do to create a sustainable world, this means that everyone is welcome to help figure out how we might: this can be no clique of initiates!

The skill of dialogue is often seen as helpful. Physicist David Bohm, who developed the concept, saw most discussion as ‘thought’, which he saw as fixed and uncreative. He preferred the idea of ‘thinking together’, where new ideas can emerge in a flow of meaning-making between people, much as a jazz ensemble sometimes gets into ‘the groove’.^{kk}

Four key practices have been identified. The first is *listening*, obviously primarily to the other person but also to one’s own thoughts and feelings. The second is *respecting*, both other people (for they have needs and a perspective that is particularly valuable when it is different) and oneself. The third is *voicing*. This means being prepared to say, and help others say, whatever seems important, even if one is not sure where it will go. The need to voice is often signalled by bodily changes such as a raised heart rate. By doing this herself, and by encouraging others to do so, the leader can bring what is radical and new to the discussion. The fourth is *suspending*. This means being prepared to hold beliefs and underlying assumptions lightly and look at them inquiringly. It does not necessarily mean abandoning them. When these four skills are practiced together, always in the context of acting and trying to understand what has happened, a capacity for action and reflection will grow.^{ll}

9. Mainstream thinking on leadership

How does the foregoing relate to mainstream leadership theory? Here is a quick summary of four people who write on leadership in business circles. It can be seen that little of what they say is inconsistent, and that they elaborate on many of the more general characteristics of leadership in an extremely helpful way.

9.1 Warren Bennis

The American Warren Bennis is one of the world’s most respected writers on leadership. He equates ‘management’ with administration, with maintenance of the status quo, with control, with doing things right, with looking at the bottom line. He sees a leader, in contrast, as innovating, as challenging the status quo, as inspiring trust, as doing the right things, as keeping an eye on the horizon. Where a manager is a copy, the leader is an original. What are some of the qualities of a good leader?^{mmm}

- **Guiding Vision** – a leader must have a clear idea of what she wants to do, personally and professionally, plus the strength to persevere.
- **Passion** – a leader must love what she does, and love doing it. At least as important, she must be able to make this passion as vivid to others as to herself.
- **Integrity** – a leader cannot cut her conscience to fit the fashion. Integrity rests on self-knowledge, a steadfast devotion to honesty and to principle, and maturity.
- **Trust** is earned by integrity; without it, a leader cannot function. And, as the Tao Te Ching puts it, the leader must show trust if she is to be trusted.
- **Curiosity** – a leader wonders about everything, wants to learn as much as she can.

- **Daring** – a leader is willing to take risks, to experiment, to try new things. She will not be too worried if things do not work out, rather embracing errors and failures for the learning they offer.

The first of these needs to be interpreted for sustainable development work. We will often need to act without complete clarity of vision. This can best be addressed by being ‘clear as to purpose, loose as to strategy’.^{mm} While vitally important, integrity also needs to be interpreted appropriately for sustainability work: very few people are able to live completely sustainably at present while also actively working to promote change in society.

As above, Bennis stresses the central role of learning for leaders: “Bottom lines have nothing to do with problem-finding. And we need people who know how to find problems, because the ones we face today aren’t always closely defined, and they aren’t linear’. This statement clearly applies to the sustainability challenge.

9.2 John Adair

UK-based John Adair, the world’s first professor in Leadership Studies, sees managers as concerned with continuity and with telling us what we should do, but he sees leaders as more concerned with change and with helping us see why we should embrace it. ‘*Change throws up a need for leaders; leaders bring about change.*’ This is clearly appropriate to the sustainability challenge. However, in one respect at least, his advice seems less relevant. He regards as hypothetical the question as to what happens if the need to change is widely resisted, saying that were this to happen the leader would be ignored and then metaphorically crucified. For sustainability, as we have seen, developing awareness of the need to change in the face of resistance is one of the central challenges of leadership.

Leaders are recognised rather than appointed. A leader will earn this recognition by her personal qualities (judgement, courage, enthusiasm, integrity, warmth and tough-minded fairness), by her relevant knowledge and by her ability to act in response to the needs of the three domains for action: task, team and individual. She will transform the *task* away from simple fulfilment, a tick in the box, to bring out a sense of purpose so as to engage the human spirit. A leader will work to maintain and develop the spirit and morale of teams: ‘*The primal function of a leader is to keep hope alive. Once people fall into the clutches of Giant Despair, then morale has a habit of collapsing*’. The leader will be able to develop and sustain creativity by awakening in individual people a proper love of self, of family, of colleagues, of organisation, of nation and even of ‘*this precious blue planet*’. It is clear that these qualities are all highly relevant to sustainability.

Adair strongly emphasises the spiritual dimension of a leader, seeing her as embodying the three great values of truth, goodness and beauty and, at their intersection, perhaps even bringing love into the world. A leader can sense the ‘inspired moment’: a time when the right words and actions can trigger off a chain reaction that can lead to sustained innovation.^{oo}

9.3 Bill Torbert

The American Bill Torbert has written extensively on transformational leadership and on how it can be developed.

Building on a huge amount of empirical data from others,^{pp} he identifies three main stages of leadership. The first, known as the ‘Pre-Conventional’ is outgrown by most people during childhood and adolescence, though it can again become dominant

in stressful situations. The second, or 'Conventional', includes three sub-stages, *The Diplomat*, *the Expert* and *The Achiever*. The overwhelming majority of people in organisations are at one of these stages. A small proportion, well under 15%, goes on to develop 'post-conventional' awareness, at which he has identified four main sub-stages. *The Individualist* and *The Strategist* can be found in relatively small numbers in most organisations, but the very rare *Magician* and *Ironist* are mainly found outside them (though their influence can be very great).

Post-conventional leaders are important a) because they have a moral span that extends far beyond the immediate group and time and so can consider distant stakeholders and far away consequences; b) because a sense of higher purpose develops, c) because the process of 'double loop learning' becomes possible without external help since they have become more practiced at seeing their own mental models and evaluating them against purpose and d) because they can easily adopt different frames of reference in different settings, so facilitating cross-group communication. Torbert claims, with some evidence, that change programmes almost always fail unless two people in the leadership team (ideally including the leader herself) are at the 'Strategist' stage at which these qualities become mature.

The problem is that most organisations only recognise individual development as far as the (conventional) 'Achiever' level at which a person can take responsibility for a project or a team but will not question it too deeply. Through Bill Torbert's work it is easy to see how most organisations stifle mature adult development, also why Harvard Business School's Chris Argyris, one of the main exponents of double-loop learning, complains that it appears so rarely in most organisations.

What helps development? Torbert argues that action and reflection is central. He talks of 'four territories of experience' that we should aim to be aware of: *purpose* (what we are trying to bring about), *strategy* (the set of mental models that we are using to do this), *tasks* (the specific behaviours that we are adopting) and *outcomes* (what actually happens in the world). By developing the higher levels of awareness (strategies and purpose) we can critically evaluate more of what we do, so develop.

This is encouraging for leaders for sustainable development. The challenge offers a worthy purpose, so potentially facilitating double-loop learning. This is exactly what is needed for personal development and more widely.⁹⁹

9.4 Joyce Fletcher

One critique of the previous three writers is that each, in his own way, offers a version of the 'heroic paradigm' of leadership. Professor Joyce Fletcher identifies 'post heroic leadership' as embedding three different challenges to mainstream thinking. First, she points out that the individual successes of famous leaders are 'enabled by a vast network of collaboration and support: while the 'white waves' of individual leaders may be visible, she argues that it is the 'deep blue sea' of the wider social system that is more important. Second, she sees leadership as a collaborative social process rather than command-and-control. Ideas such as 'servant leadership'¹⁰⁰ embody this challenge to hierarchy. Third, post-heroic leaders are not expected to have all the answers but rather to create conditions under which collective learning and improvement can occur.

However Fletcher also points out how strongly more heroic models of leadership are linked to mainstream models of masculinity and how hard it is not only (usually for men and male-dominated organisations) to let go of them but also (and particularly for women) to be valued for displaying them. She particularly warns

against ideas such as ‘emotional intelligence’ being co-opted as yet another mark of a heroic leader without a deeper examination of what leadership means.^{ss}

While Professor Fletcher’s arguments do not in any way contradict the analysis of this paper, she is clearly strongly emphasising the ‘association’ and learning elements of leadership, and would see ‘agency’ in particular as more likely to arise from these than from heroic assaults on the strategic high ground.

10. Conclusion: leadership for sustainable development

A leader for sustainable development will share many of the qualities that distinguish great leaders in other fields. For instance, she will demonstrate integrity (interpreting it appropriately for work in the field of sustainable development) and courage and will both earn and demonstrate trust. She will be able to awaken realistic hope while also denying none of the facts about the state of the world.

Beside these general qualities, leadership for sustainable development needs to address three conditions in parallel – awareness, agency and association with others – if significant change is to be possible. Any prolonged imbalance between these three will threaten progress and may halt it altogether.

The awareness agenda in particular can be disturbing. The leader needs to have built enough awareness herself to be sure that she will not avoid the issues and that she will be able to support others in developing their own awareness.

Building agency requires the leader to be very alert for opportunities that others would very likely miss, blending vision with here-and-now tactical awareness. It also requires her to come to appreciate what a person might be capable of undertaking and what she might do to motivate him to do it.

Association with others in groups is essential both to this and to wider transformation. Besides the usual phases of group development, the leader will play particular attention to developing trust and dialogue. In this way she can ensure that the different perspectives within the group can contribute and can also significantly contribute to the learning process.

A leader will be deeply aware of the process of change: of which of the three conditions (or other factor) might block it at any time and of what might be necessary to unblock it. She will not, for instance, develop awareness without also thinking of how meaningful agency will be found, will not think of agency without thinking of the association with others that might be needed, will not think of association without thinking of how the awareness in the relationship can be deepened.

Leaders will be at least as deeply committed to their own learning as to the learning of others. Mainstream writers agree that this is vital; in the field of sustainable development, learning leadership is quite central. Luckily, while the learning challenge is great, sustainable development offers a worthwhile purpose that each leader can interpret in her own way and which has the potential to promote personal development beyond the levels found in most organisations.

Post-conventional qualities, at least to the ‘Strategist’ level, are needed in leadership teams. If the leader is not at this stage herself, she will need to develop trusting relationships with others who are, whether in her group or outside it.

In this field above all other, the risks are much less if we commit ourselves than if we do not, but currently most people prefer not to do so. In this respect, the leader’s main responsibility is perhaps to exemplify hope and so stimulate engagement, daring and creativity. As the saying goes, ‘By their fruits shall you know them’. The best sign of an outstanding leader is perhaps the emergence of others who also lead.

Notes and References

- ^a The figure is almost certainly a significant underestimate of human impact: for instance, the only pollution included in the figures is anthropogenic greenhouse gas emissions. For detailed analysis see Loh, J. (2002). *The Living Planet Report 2002*. Gland, Switzerland, WWF International & UNEP-WCMC.
- ^b See pp. 72ff, Robèrt, K.-H. (2002). *The Natural Step Story: Seeding a Quiet Revolution*. Gabriola Island, BC, Canada, New Society Publishers.
- ^c See Scenario 9, p. 244, Meadows, D. H., J. Randers, et al. (2004). *Limits to Growth: The Thirty-Year Update*. White River Junction, VT, Chelsea Green.
- ^d Ballard, D. I. (2005). "Using Learning Processes to Promote Change for Sustainable Development." *Action Research* 3(2): 135-156.
- ^e These constraints are summarised in more detail in Ballard, D.I., *Ibid*.
- ^f Wilber, K. (2000). *Integral Psychology*. Boston, Shambhala.
- ^g See, for instance, http://www.number-10.gov.uk/su/survivalguide/skills/s_pestle.htm
- ^h The ability to recognise and address contextual barriers was identified as being among the defining characteristics of climate change 'champions' or leaders in research carried out for Hampshire County Council in the UK in 2005 and led by Susan Ballard of Alexander, Ballard & Associates.
- ⁱ DEFRA (2001). *Survey of Public Attitudes to Quality of Life and to the Environment*. London, Department of the Environment, Food and Rural Affairs.
- ^j Macnaghten, P., R. Grove-White, et al. (1995). *Public Perceptions and Sustainability in Lancashire*. Lancaster, Lancashire County Council, 1995, £10.00.
- ^k The figure is from a 2003 survey by the Energy Saving Trust, UK, and is quoted on p. 54 of Hillman, M. and T. Fawcett (2004). *How we can Save the Planet*. London, Penguin.
- ^l DEFRA (2001). *Survey of Public Attitudes to Quality of Life and to the Environment*. London, Department of the Environment, Food and Rural Affairs.
- ^m Macnaghten, P., R. Grove-White, et al. (1995). *Public Perceptions and Sustainability in Lancashire*. Lancaster, Lancashire County Council, 1995, £10.00.
- ⁿ Sterman, J. D. and L. Booth Sweeney (2002). "Cloudy Skies: Assessing Public Understanding of Global Warming." *Systems Dynamics Review* 18(2).
- ^o See Wilber, K. (2000). *Integral Psychology*. Boston, Shambhala.
- ^p Meadows, D. (1997). "Places to Intervene in a System." *Whole Earth Review*(Winter, 1997).
- ^q See, for instance, www.lanl.gov/orgs/pa/science21/CarbonSeques.html
- ^r Holling, C. S. (1994). "Simplifying the Complex: The Paradigms of Ecological Function and Structure." *Futures* 26(6): 598-609.
- ^s The need for this perspective in public policymakers is made strongly in the following article by one of the leading thinkers of the 20th century: Bateson, G. (2000). *Conscious Purpose versus Nature. Steps to an Ecology of Mind*. G. Bateson. London, Chicago University Press: 432-445.

^t Theory and exercises are given in Macy, J. and M. Y. Brown (1998). Coming Back to Life: Practices to Reconnect our Lives, Our World. Gabriola Island, BC, Canada, New Society Publishers.

^u Recent research into climate change champions that was led by Susan Ballard of Alexander, Ballard & Associates supports this view. The interviews quoted in the text were carried out by the author of this report and are summarised briefly in UK Round Table for Sustainable Development (1998). Monitoring and Reporting on Sustainable Development. London, UK Sustainable Development Commission.

^v See Op. Cit. above.

^w This perspective was given by Oxford University's Professor Steve Rayner in an interview with the author originally published on the web magazine www.changingclimate.org. Copies available on request to the author at dballard.msc13@london.edu.

^x The Fishbanks Game, available from the Laboratory for Interactive Learning, University of New Hampshire, USA, is an excellent example. A brief description is given in Ballard, D. I. (2000). "The Cultural Aspects of Change for Sustainable Development." Eco-Management and Auditing (June 2000)(Special Edition on Change for Sustainable Development).

^y Macnaghten, P., R. Grove-White, et al. (1995). Public Perceptions and Sustainability in Lancashire. Lancaster, Lancashire County Council, 1995, £10.00.

^z Macy, J. and M. Y. Brown (1998). Coming Back to Life: Practices to Reconnect our Lives, Our World. Gabriola Island, BC, Canada, New Society Publishers.

^{aa} The figures depend on whether stabilisation of atmospheric CO₂ at 450 or at 550 parts per million volume is seen as necessary. The latter is often seen as the highest number that is conceivably safe; it would require reductions in global emissions of at least 60% or 3.8 billion tonnes. The higher reductions figure is required for stabilisation at 450 ppmv. The arguments for regarding 550 ppmv as an absolute maximum are given in RCEP (2000). Energy - The Changing Climate. London, Royal Commission on Environmental Pollution.

^{bb} Olli, E., G. Grendstad, et al. (2001). "Correlates of Environmental Behaviors: Bringing Back Social Context." Environment and Behaviour 33(3): 181-208.

^{cc} How the social construction processes of groups work against fundamental change is explained in Thompson, M., R. Ellis, et al. (1990). Cultural Theory. Oxford, Westview Press.

^{dd} Somewhat contrasting views on this issue are given by Watts, D. (1999). Small Worlds: The Dynamics of Networks between Order and Randomness. Princeton, PA, Princeton University Press. Gladwell, M. (2002). The Tipping Point: How Little Things Can Make a Big Difference. New York, NY, Time Warner Books. Masini, A. and M. T. Pich (2004). "The Diffusion of Competing Technological Innovations in a Network: Exploration versus Exploitation Revisited." Submitted to: Management Science.

^{ee} Srivastva, S., S. L. Obert, et al. (1977). Organizational Analysis through Group Processes: A Theoretical Perspective for Organizational Development. Organizational Development in the UK and USA. C. L. Cooper. London, MacMillan: 83-111.

^{ff} Thompson, M., R. Ellis, et al. (1990). Cultural Theory. Oxford, Westview Press.

^{gg} Lukes, S. (1974). Power: A Radical View. London, MacMillan.

^{hh} Economic growth is highly correlated with use of energy (corrected for the efficiency of its transformation into physical work), which is linked to climate change. Data are selected by an analyst and his or her choice is conditioned by what (s)he values. When Adam Smith published 'The Wealth of Nations', the foundation text of modern economics, in 1776 the physical limits to economic activity seemed so distant as to be to all intents and purposes irrelevant. GDP is a measure of activity rather

than of welfare. Thus the oil spill from the Exxon Valdez increased GDP because oil clean ups were required and a new tanker needed to be built: there is no debit side in GDP to account for disbenefits such as pollution.

ⁱⁱ Diagrams from Stacey, R. D. (1993). Strategic Management and Organisational Dynamics. London, Pitman.

^{jj} The foundation text for this is Bateson, Op. Cit. above. In managerial thinking, the primary source is Argyris, C. and D. A. Schon (1996). Organizational Learning II: Theory, Method and Practice. Reading, Mass, Addison-Wesley.

^{kk} David Bohm was a Professor at Imperial College. His thinking on this is summarised in Bohm, D. (1999). On Dialogue. London, Routledge.

^{ll} Isaacs, W. R. (1999). Dialogue and the Art of Thinking Together. New York, Currency/Doubleday.

^{mmm} Bennis, W. (1998). On Becoming a Leader. London, Arrow Books.

ⁿⁿ This statement about what is important to leadership for sustainable development was made by Karl-Henrik Robèrt, founder of The Natural Step, in a presentation in Bristol, UK, c. 1996.

^{oo} Adair, J. (2003). The Inspirational Leader: How to Motivate, Encourage and Achieve Success. London and Sterling, VA, Kogan Page.

^{pp} The primary source is Jane Loevinger's work on mature adult development. Work on the higher stages of development, building on Loevinger's work, and consistent with other researchers such as Robert Kegan, as summarised in Wilber (Op. Cit.) was carried out at Harvard University in the late 1990s: Cook-Greuter, S. (1999). Postautonomous Ego Development: A Study of Its Nature and Measurement. Doctoral Thesis presented to Graduate School of Education. Cambridge, MASS, Harvard University.

^{qq} Torbert, W. R., S. Cook-Greuter, et al. (2004). Action Inquiry: the Secret of Timely and Transforming Leadership. San Francisco, CA, Berrett-Koehler.

^{rr} Greenleaf, R. K. (1991). Servant Leadership: A Journey into the Nature of Legitimate Power and Greatness. New York, Paulist Press.

^{ss} Fletcher, J. (2002). "The Greatly Exaggerated Demise of Heroic Leadership: Gender, Power and the Myth of the Female Advantage." CGO Insights Briefing Notes 13.