# Being 'green:' an environmental and social approach

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## 1 Introduction

To understand what it means to be 'green' in Western society, we need to go back to the creation story of the Abrahamic faiths in which Adam is given 'dominion' over the earth (Gn 1:28). Francis Bacon (1561–1626) argued that this authorised man (women did not come into his calculations) to control the universe through science; in 1967, well before the modern green movement had emerged, Lynn White (1967) challenged this view that God had given human beings the right to exercise 'dominion' over the earth in whatever way they saw fit. However, it would be fair to say that few scientists in the intervening centuries had paid much attention to Bacon's view; it was only in the twentieth century that his place in science began to be celebrated and his view of man's relationship with the universe began to be pushed by scientists, not least those seeking a technological solution to global warming.

#### 2 Environment

So the first thing we can say about being 'green' is that we reject the Baconian view of the role of man and of science in society — but this only gives us a negative definition of 'being green;' to begin to get a positive view, we must look elsewhere. The first glimmerings of what it means to be 'green' can be found in the work of Alexander von Humboldt (1769–1859), Ernst Haeckel (1834–1919) and Eduard Suess (1831–1914) who, respectively, coined the terms 'Kosmos,' 'ecology' and 'biosphere.' A significant addition to the vocabulary was the coining of the term 'environment' by Jakob von Uexküll (1864–1944) but the most significant advances occurred in the 1920s and 30s when, among many others, Georges Lemaître (1894–1966) produced his mathematical model of the universe, dubbed the 'big bang theory,' Charles Elton (1900–1991) coined the term 'food chain' and Arthur Tansley (1871–1955) introduced the concept of the 'ecosystem.'

Lemaître's model completely changed our view of the universe from the Aristotelian view of a stable, unchanging universe to our current view of an expanding, constantly changing universe. This had implications for theories of evolution. There had been at least four before that of Charles Darwin (1859), which still remains the most popular and led to the coining by Herbert Spencer (1864), not by Darwin himself, of the phrase 'survival of the fittest.' However, all the 19th century theories assumed the Aristotelian view of a stable universe whereas Margulis and Sagan (1995) examined the changes that have happened in the lifetime of the earth and

concluded that, since at least 98% of known species are extinct, the defining characteristic of those that have survived is cooperation. For example, human survival relies on millions of 'friendly bacteria' from the mitochondrial DNA which is passed on directly through the ovum to those that invade the gut soon after our birth and enable us to break down the vitamins that are essential for our survival.

This is not to say that competition has no place but that its place must be redefined; in her study of free and open source software development, Gabriella Coleman (2013) showed that successful programmers competed with each other to produce the best code but then had to cooperate in order to gain acceptance of that code by other programmers. Once their code had been accepted and someone competed with them to improve on their code, they did not reject the competition but cooperated to ensure that the very best code was accepted by everyone and went on to compete further by improving what had already been accepted. In practice, in most areas of life, those who succeed in achieving something of high quality do so as a result of the cooperation, sometimes unacknowledged, of others.

But to return to a biological understanding of what it means to be 'green,' Rachel Carson's *Silent spring* (1965) first alerted us to the consequences of failing to understand what we had learned about the planet and its ecosystems and, more startlingly, James Lovelock (1979) argued in his 'Gaia hypothesis' that the inorganic and the organic elements of the universe interact. Some evolutionists reacted violently to this idea but, as Margulis and Sagan (1995) were later to demonstrate, it was bacteria who changed our atmosphere by expelling oxygen, long before there was any accidental error in the genetic makeup of some bacteria which enabled them to make use of the oxygen. Had there been no oxygen, the later accidental error would not have produced viable organisms. Today we can see in a more dramatic fashion how what human beings do is changing our climate which in turn is affecting things inorganic and organic, including human beings.

Other dimensions were brought into our understanding of science when Fritjof Capra (1982) argued that most western science has a 'masculine' emphasis on dominance at the expense of a 'feminine' focus on relationship and Prigogine and Stengers (1984), among many others, argued that the traditional notion that a scientist can somehow act on the universe from the 'outside' is misplaced. A scientist is always part of the system on which s/he is acting and can only take a subjective view of his/her work.

By 1987 the work of Lovelock and others had been influential enough to prompt the signing of the Montreal Protocol to protect the ozone layer and since 1992 a series of UN sponsored protocols have sought to address the impacts of climate change.

From an environmental point of view, then, 'being green' involves the modern scientific view that we are part of the universe and that, while we may try our best to do what is best for ourselves, we can only do that by recognising that our view of the universe is always subjective and by trying to cooperate with the rest of the universe, not by seeking to 'dominate' or control it from some sort of false position 'outside' it. Those who think that they can somehow manage climate change and loss of biodiversity from 'outside' are both misguided and unscientific.

## 3 Green environmentalism

Green environmentalism is expressed in many varieties from the 'stewardship' approach of a number of churches which is only a little removed from Bacon's 'dominion' to the radical 'return to nature' approaches which eschew the use of any scientific knowledge which conflicts with a limited view of the environment. Any worthwhile approach to green environmentalism must recognise human beings as integral parts of the universe able to affect and be affected by it and scientific enquiry as the key to understanding those interactions.

Climate change represents such an interaction; on the one hand, it is a cyclic process which in the past has led to movements of human beings in various parts of the world; on the other hand, its progress is being affected by the actions of human beings. Whatever actions human beings now take to mitigate their existing impacts on this cycle, the climatic changes which ensue will lead to movements of human beings in various parts of the world. At its most extreme, some islands will disappear and some low lying coastal areas will be covered causing significant migration to other parts of the earth while crops once produced in certain areas will no longer be viable and the traditional lifestyles of a number of human groups will no longer be sustainable.

Human beings will adapt to whatever impacts of climate change there are; the question is not whether they will adapt but what sorts of human beings they will become as a result of adapting (Sommer, 1969). If the hypothesis that those who cooperate survive (Margulis and Sagan, 1995) is correct, then, if the outcome of climate change is that human beings become less likely to cooperate, their long term survival as a species will become more unlikely.

Note that a slogan like 'save the planet' is shorthand for 'save the planet so that human beings can continue to survive on it' because there is no evidence that the extermination of the human species will necessarily lead to the end of planet earth (though some religious groups believe that the two will go hand in hand).

In other words green environmentalism faces two challenges:

- to convince sceptics that the human species is worth saving and
- to develop a programme that will lead to human beings surviving climate change in a way which makes them more likely to survive as a species in the long term.

There are both religious and non-religious people for whom the first is contentious;<sup>1</sup> to that extent green environmentalism is essentially a humanist agenda, albeit supported by a number of religious groups for a variety of reasons. There are also religious and non-religious groups who have their personal agendas for human beings which do not exhibit the kind of cooperation which is essential if the human species is to adapt to climate change with a reasonable expectation of long term survival.

The task, therefore, for green environmentalists is to explain why the human species is worth saving in the long term and how that might best be done. Though I have considered green environmentalism in terms of climate change, other interactions between human beings and the rest of the universe, such as sustaining species variety, offer routes to understanding green environmentalism. However, as with climate change, the ultimate purpose of sustaining species variety is to ensure that the survival of the human species is not threatened.

## 4 The social approach

The social approach may be underpinned by a Marxist or similar analysis or by a religious belief system which, like the Christian faith, mandates a duty of care towards fellow human

<sup>&</sup>lt;sup>1</sup>Some of the arguments against saving the human species are set out by Dr Falken in the 1984 film War Games.

### physical

social

## Well-being

spiritual

sexual

#### cultural

Figure 1: Well-being framework

beings. Its underlying principle was summed up four centuries ago by John Donne (1624) in Meditation 17

No man is an island, entire of itself; ... Any man's death diminishes me, because I am involved in mankind; and therefore never send to know for whom the bell tolls; it tolls for thee ...

But, like green environmentalism, the green social agenda has gained considerably from a wide range of twentieth century studies; one way of expressing it is in terms of the Well-being framework (figure 1). All human beings need to be able to satisfy their needs in all these areas and the ways in which they do this normally meet more than one need, for example, taking exercise as part of a sport, expressing culture as part of a social event, expressing sexuality as part of an emotional attachment.

Another way is in terms of the 'requisite variety' for sustainable communities. Just as individuals need the 'requisite variety' of housing, food, clothing, exercise, health care, education, family and social relationships, cultural and spiritual experiences (the latter may not involve formal religious practice but must entail some belief about a purpose in life) and sexual experiences that promote rather than diminish them as people to meet their needs, so families and communities need 'requisite variety' to remain sustainable.

Families without 'requisite variety,' whether because they have limited resources, both material and psychological, to meet their needs, because they can call on few relatives for support or because they are isolated from their communities, will never be sustainable. Similarly, communities without 'requisite variety,' whether because they lack community educational, cultural or spiritual resources or because they lack a wide range of skills, both practical and psychological, perhaps because young people have left them to work elsewhere or because they resist the influx of 'new blood' and new ideas into the community, will never be sustainable. Such families and such communities will always become a burden on wider society in much the same way as communities made unsustainable by climate change will become a burden on the rest of the human species.

Since our human behaviour always has impacts on others and others' human behaviour always has impacts on us, the question is not whether this will happen — it is unavoidable — it is whether those impacts will promote the well-being of individual human beings, their families



Figure 2: Being green

and communities and the longer term survival of the human species as a whole. As with green environmentalism, to help us with this we need science to understand the interactions which go on between human beings and their contribution or otherwise to ensuring that individuals, families and communities have the 'requisite variety' they need in order to be sustainable and thus ensure the longer term survival of the human species.

As with the environmental agenda, the green social agenda faces two challenges:

- to convince sceptics that this agenda is not a zero-sum game, that it will not simply involve taking from the haves to give to the have-nots, but that, if there are temporary losses, these will be outweighed by the benefits to all human beings, including those who have suffered a temporary loss and
- to develop a programme which enhances the capacity of human beings to take personal responsibility for the welfare of other human beings by ensuring that they have the 'requisite variety' as individuals, within families and within communities needed for sustainability and the long-term survival of the human species.

## **5** Relationships

Our Western understanding of the social aspect of being 'green' is both more recent and still very partial.

Though there had been earlier studies of child development, in the UK it was primarily the experience of evacuation during World War II which prompted a series of studies on the impact

of separation on children. These in turn led to a recognition of the importance of relationships in children's lives, primarily with the parents but also with other carers where the parents were unable for whatever reason to accept full responsibility for their care for them.

By the end of the 1970s it was clear that making an 'attachment' was crucial to developing satisfactory relationships; while this attachment would normally be with the child's parents, it could be with someone else and, even if it could not be provided in early childhood, providing it later — as long as it was provided for around five years — would be sufficient to enable a child to develop satisfactory individual relationships (Kadushin, 1970). Perhaps more surprisingly, it became clear that emotional harm to children can be 'cured' provided there is a sustained and very positive relationship with the child over a five year period (Clarke and Clarke, 1976).

However, the National Child Development Study found that the most significant factor in positive outcomes was the environment in which a child lived; if their social situation deteriorated, their attainments would decline; if their social situation improved, their attainments would improve (Fogelman, 1983). In all the situations outlined above the sustained and positive relationships had taken place within a significantly improved environment for the child. An earlier study by Bronfenbrenner (1974a,b) had found that short term interventions in children's lives had a short term effect; for there to be any long term effect, there had to be a long term positive change in the child's life.

In addition to secure attachments to caregivers, children need to experience pro-social peer group relationships; those who do not experience difficulties throughout their lives (Ladd, 2005) because, while peer group relationships develop slightly differently for girls and boys during adolescence (Archer, 1992), failing to develop satisfactory peer group relationships hampers their ability as adults to cooperate and to work in groups.

The importance of developing secure attachments and pro-social peer group relationships is significant for mental health as children whose families experience multiple adverse experiences are more likely to become delinquent or to suffer from mental health problems (Berger et al., 1975) and those who lack social relationships are more likely to suffer mental health problems (Brugha et al., 1993).

#### 6 The gender dimensions

In characterising approaches to science in terms of gender, Capra (1982) had drawn on Taoist philosophy but these dimensions have recurred in a number of modern scientific studies and in older literature. Carol Gilligan (1982), for example, showed that men prefer the impersonal to the personal, Deborah Tannen (1992) that men prefer action to relationship and Geert Hofstede (1998) that 'masculine' societies place more emphasis on work and 'feminine' societies on the family.

Meanwhile, Gilligan et al. (1988) had demonstrated that women see justice in care whereas men see it in process, a theme explored by Shakespeare nearly four centuries earlier in *The merchant of Venice* and *Measure for measure*. In *The merchant of Venice* Portia's judgement in the trial upholds the justice of behavioural correctness but in the matter of the rings, which Bassanio and Gratiano have been persuaded to give up to the judge and his clerk, Portia and Nerissa take account of the consequences of breaking off their engagements on account of the men's unfaithfulness. In *Measure for measure* the Duke orders the same fate for Angelo as Angelo would have decreed for anyone else whose behaviour had fallen so far from behavioural correctness as his had; but Isabella and Mariana join in pleading for his life because, once he has been executed, they will lose all chance of the emotional and material restoration which they, as victims, desire (Strang, 2002).

More recently, Sen (2009), drawing on the Hindu concepts of the justice of behavioural correctness (in the process) and the justice of consequences, has argued that western philosophy and criminology is dominated by the impersonal concept of justice as behavioural correctness rather than the personal concept of justice as consequences. The ideas of justice as care and justice as defined by its consequences are significant for 'being green' because, if 'being green' does not involve care for the environment and concern for the consequences of actions which affect the environment, whether the physical or the social environment, what point is there in 'being green?'

It is important to recognise that, as Capra argues, these two main concepts of justice are complementary, not exclusive. There have to be processes that enable consequences; there has to be action that facilitates relationships. The problems in Western societies have arisen in two areas:

- 1. as in the debates about competition and cooperation, in the elevation of one aspect to the exclusion of the other and,
- 2. in the failure to recognise the impact of cultural assumptions. For example, in 'masculine' cultures gender equality tends to be defined in terms of women being able to undertake any work which is open to a man; in 'feminine' cultures it tends to be defined in terms of men taking on the same family responsibilities as women.

Drawing all these studies and concepts together, we can say that 'being green' involves rejecting a world in which thinking is dominated by male concepts of a world where work is more important than family and impersonal relationships and actions which ignore consequences are preferred to those which express concern for family relationships and the consequences of actions. But it does not mean substituting the opposite set of assumptions because, as Hofstede (1998) shows, these may also have consequences which might not be desirable. It means developing inclusive views which develop from a view of human beings as complex organisms with many facets who are inalienably part of the universe and unable to step outside it.

### 7 Adult development

As in childhood adults who lack secure attachments and pro-social peer group relationships can acquire them through long term stable individual and peer group relationships which take place in a positive environment. The main impediment to acquiring them is never being in a sufficiently positive environment with sufficiently committed individuals and peers.

If adults encounter adverse situations, the most useful sources of support are not professionals but family members (European Union Agency for Fundamental Rights, 2014); so those who lack family support are at a particular disadvantage.

Ways to mitigate the stress of adverse situations include physical exercise and re-framing situations to focus on the positives in the situation rather than the negatives (Dunham, 1978; Osterweis et al., 1984).

More significantly, Osterweis et al. demonstrate that the mind/body split introduced by Descartes in the 17th century is a figment of the imagination. Mind and body are an integrated system in which what is in the mind affects what is in the body and what is in the body affects

what is in the mind. So, strictly speaking, there is nothing such as mental health; there is just health and what we call 'mental ill-health' is just an aspect of our 'physical' ill-health.

The impact of a positive environment on children's development and recovery from harm is reflected in the finding that those who remain intellectually active in mid-life are more likely to maintain their intellectual faculties in old age (Schaie and Willis, 1986); that is, any adverse circumstance which has not been mitigated and therefore continues to impact our intellectual life has an adverse impact on what we can achieve as we grow older.

While we do not know what factors are most significant in enabling people to develop a settled belief system, we do know that those who have a settled belief system are more likely to suffer less ill-health and to live longer (Williams and Sternthal, 2007).

## 8 Male insecurity: the obstacle to 'being green'

In a study of the most successful managers, defined as those whose companies were successful for over fifteen years (or 0.7% of the 1,500 companies surveyed), Collins (2001) found that, among other things, they:

- were modest people who had no public profile
- worked with a small group of people
- focused on the good of the organisation
- accepted responsibility for their failures.

These are difficult for many men. In the early teenage years, girls develop their relationship skills two or three years ahead of boys (Archer, 1992) and this advantage persists for most girls throughout their lives in part because many boys fail to follow suit. They become frightened of expressing emotions, they claim to be acting rationally when they are driven by emotion and they fail to develop a satisfactory sense of male identity because they lack the relationship skills needed to develop such a sense of identity. Indeed, the only defining characteristic of men who sexually harass women is that they have anxieties about their masculinity (Lundberg-Love and Marmion, 2003). They are also reluctant to accept personal responsibility, blaming luck or external factors for their failures (Nieva and Gutek, 1980).

Seeing feelings and luck as difficult to handle, they resort to control to manage what appears to them to be an uncontrollable world. This undermines their ability to obtain cooperation and thus their long term success; to compensate for this they drive themselves and others, often through bullying, to achieve the success they crave to compensate for their unsatisfactory sense of male identity. They can have considerable 'success' in this by recruiting other men with similar difficulties who feel safe working in a controlled, impersonal environment where failures can be attributed, like the failures of magic spells, to failures in the process (Cleverley, 1971) rather than to any individual in the organisation.

But the very fact that they have difficulties with relationships and with accepting personal responsibility means that any success they have is short-lived; they have difficulties thinking about themselves as having a relationship with the universe and they have difficulties understanding what it might mean to be 'green.' So, for them, the Baconian view of man as 'outside' the universe 'objectively' holding 'dominion' over it in a way for which they have no personal responsibility is attractively reassuring.

This view may also become attractive for some women because some girls do not have the same experience of developing relationships that the majority do while, conversely, those boys who do have opportunities to develop relationships often gain the advantages of a clearer sense of their masculine identity and greater ability to cooperate to achieve long-term success.

## 9 Integrating the two

There is a variety of ways in which the green environmental and the green social agendas can be integrated, perhaps the most interesting being that outlined in *The inner level* (Wilkinson and Pickett, 2018), which demonstrated that human well-being is strongly influenced by the width of the gap between the poorest and the wealthiest members of a society. In societies where the gap is narrow, the well-being of both the wealthiest and the poorest is significantly greater than in societies where the gap is wide. In societies where the gap is wide, wealth cannot buy even the wealthiest people the quality of well-being which would be available to them in a society where the gap is narrow.

However, the difficulties in bringing about the necessary integration are similar whether we are talking about human well-being or climate change. The gap between the wealthiest and the poorest has fluctuated between societies over hundreds of years just as global warming has fluctuated over the centuries and human beings have historically adapted to both. What perhaps has been different in the twentieth century is that human action has accelerated and deepened both the gap between the wealthiest and the poorest and the rate of the global warming phase of climate change bringing the threat of a catastrophic rather than a smooth change in well-being and climate change.

However, even without the human impacts on global warming, some, if not all, human groups would have had to adapt to climate change. For example, housing in some parts of the world would no longer be suitable for the new climate; some types of food could no longer be grown in some areas but could be grown in others. Existing social arrangements for childrearing, health care or education would have to be adjusted to take account of life in a new area or a new lifestyle more suited to the new climate. It is very likely that some people would have gone from being relative 'haves' to 'have-nots' while others would have gained from new opportunities brought about by the new climate. If these changes were also accompanied by a narrowing of the gap between the wealthiest and the poorest, it would be more likely that human beings would be able to adapt to the new situation.

However, the acceleration of global warming may take human beings into uncharted waters as far as adapting to climate change is concerned because it may involve human beings adapting to change far more quickly than the species is accustomed to adapt to change making it more difficult to use existing scientific knowledge to manage change successfully and also increasing the risk that those who 'have' will be unwilling to share with those who 'have not,' thereby widening the gap between the wealthiest and the poorest and reducing the well-being of all human beings, whether 'haves' or 'have nots.'

#### 9.1 Locally ...

How particular human groups will need to adapt to climate change locally will depend on their own living situations, the current impact of their lifestyles on climate change and the likely future changes on their lifestyles as a result of climate change. From a green social perspective, the important thing is that *all* human beings have the 'requisite variety' necessary to maintain sustainable individual, family and community systems; *all* means not doing things that adversely affect the sustainability of other individuals, families or communities.

For example, good quality education and leisure activities for children and young people, preferably within safe walking distance, so that children can get exercise on the way to school or recreation and participate in after school and other community activities which develop their physical, social and cultural skills as well as their intellectual ones without leaving a huge carbon footprint, will contribute towards sustainable lifestyles for children and their families as well as for the rest of the human species.

Similarly, ensuring that work, leisure and cultural activities are available in sufficient variety within easy reach of people's homes will reduce the carbon footprint arising from long distance commuting or travel to leisure and cultural activities as well as providing local employment for those involved in providing leisure and cultural activities. In general, for communities to be sustainable, at least 20% of the jobs in a community must be productive rather than service jobs.

Any sustainable community must have 'requisite variety,' that is, enough features to meet most of the needs of most of the community so that people do not have to travel or migrate to other communities because their needs cannot be met locally. Of course, there will always be specialised activities which cannot be provided in every community for a whole variety of reasons but, from a green social action perspective, avoiding situations where people have to travel or migrate to another community for something which would be viable in their own community is essential for maintaining the sustainability of communities.

Once communities fall below the 'requisite variety' threshold, there will normally be a rapid outflow of opportunities and people to communities with a greater variety of resources. The same applies to families whose members cease to be able to offer the 'requisite variety' of relationships that family members need and they turn elsewhere or gradually become less sustainable as individuals.

Consequently, a green social agenda needs to include:

- supporting families to provide sustainable support to family members
- supporting those who, for one reason or another, no longer have access to family support
- sustainable educational, cultural and spiritual opportunities in each community
- a 'requisite variety' of employment and recreation opportunities for people at every age
- environment, health, housing and transport services to meet people's basic needs
- a tax and benefit system which narrows rather than widens the gap between the wealthiest and the poorest.

#### 9.2 ... and globally

Translating the above into a global green social agenda, human beings in *all* communities need to be able to meet these needs; just as the move to nuclear families in so-called developed countries has made it difficult for some families to meet all their family members' needs, so climate change may bring forced migrations that will disrupt families' abilities to meet their own needs and to support members of the wider family. Migrations and lifestyle changes will threaten communities' educational, cultural and spiritual opportunities, their capacity to provide employment and recreation opportunities for people at every age and any existing infrastructure services while few of those communities most threatened by climate change will have the resources to provide basic income support.

Migrations have traditionally caused conflicts and there is every reason to believe that this will happen again; lifestyle changes may also affect the sustainability of communities as, for example, some communities cease to rely on products from other communities whose sustainability is thereby threatened or some communities can no longer produce things on which other communities have hitherto relied. Two factors seem likely to aggravate the situation:

- the acceleration of global warming which may accelerate the rate of migration and the speed at which lifestyle changes affect communities and
- the defensive positions taken up by so-called developed nations; for example, they are already reluctant to:
  - adapt their lifestyles to assist others affected, or potentially affected, by climate change
  - adapt their economic relationships to assist others affected by climate change
  - accept movements by people affected by climate change into their countries.

This reluctance is short-sighted and self-defeating because it:

- fails to recognise the interdependence of all organisms on earth
- fails to recognise that the long term costs of this reluctance will far outweigh the short term costs
- ignores climate justice most of the adverse consequences of climate change are being experienced by those who have contributed nothing to global warming.

They need to:

- dramatically reduce their contribution to accelerating and deepening global warming
- provide direct support to communities that can be sustainable in spite of global warming to enable them to remain sustainable
- provide direct support to communities that, because of global warming, can no longer be sustained to enable them to create new sustainable communities.

But a green social agenda cannot be driven solely by climate change, or any other environmental issue; there are other environmental issues that must be combined with social action to develop an integrated approach and there are communities across the world that are not sustainable in the long term for a variety of reasons not connected with climate change; such communities are always at risk of breaking up, resulting in migrations unconnected with climate change that can destabilise other communities and/or make them less sustainable. Moreover, some communities' lifestyles, both in the so-called developed countries and in other countries, have an adverse effect on the global environment, for example, by threatening species survival and thus reducing the variety of species in ways that may result in a fall in species numbers below that needed for 'requisite variety.'

## 10 Obstacles to an integrated approach

Typically human beings develop their perspectives and the timescales over which they make decisions as they grow older (Jaques, 1986) and Urie Bronfenbrenner (1979) has suggested that human perspectives develop in four main stages. Without going into the details of these stages, this means that people's capacity to integrate an environmental and a social approach depends in part on their life experience and the extent to which it has allowed them to develop broader perspectives.

Indeed, in my experience, many people who say they take an environmental approach do so from a fairly limited perspective and see no need to integrate their limited perspective with any other perspective in order to gain a more comprehensive environmental perspective. The same is true among those with social action agendas who focus, for example, on family policy, housing and homelessness or income support without looking at the interactions between all these elements and the need for green social action to integrate them.

The zero-sum view also inhibits those who 'have' but believe that those who 'have not' can only gain at their expense; in fact, as environmental health programmes have shown, you can improve the lives of those who are less well off and thereby improve those of the the well off. For example, the nineteenth century demand on the railway companies to provide cheap fares for the working classes prompted the companies to develop their services with consequent benefits for wealthier customers.

Finally, people normally consider any new investment purely in financial terms; in practice, as studies of the introduction of containers and information technology have shown, the overall cost savings are minuscule but the productivity gains and opportunities bring intangible benefits. Indeed, W. Edwards Deming (1986) has argued that the figures used by most people to justify decisions are meaningless. However, people are still deluded by the dictum that the only things worth knowing are things that can be measured.

## 11 Conclusion

There is no incompatibility between a green environmental and a green social agenda; they are both based on the, now generally accepted, assumption that all human beings affect and are affected by all the other elements in the universe and a view that the human species should remain a viable species on earth; that can only happen if the human species is able to create and maintain sustainable communities. Both agendas can also be supported by sound scientific understanding of the impacts of gender development on human beings and the interactions of the various elements in the universe.

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