

# section three



## Individuals – as citizen consumers

The choices people make – to consume certain products or live certain lifestyles – can either sustain the environment or harm it. When we factor in the upstream and downstream activities associated with these choices, our lifestyles account for the majority of environmental impacts globally.

While the previous section, Business as sustainability innovators, focused on changing production patterns, this section explores whether consumption patterns might be changed. But to do so is a staggering task. So what knowledge and approaches are needed to increase sustainable consumption? And what exactly is sustainable consumption?



Sustainable consumption

What is it and what will it mean for society?

We are what we buy – aren't we?

How personal and group identity influences consumption

Seeking pro-sustainability household behaviour change

What works? Profiling the Sustainable Living programme

Supporting practice change through transformative communication

How communication can create change

Education for sustainability in secondary schools

Is our secondary education system able to equip students for a complex-decision-making environment?



Landcare Research  
Manaaki Whenua

# An introduction to sustainable consumption

CHAPTER 14 : HATCHED

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## Summary

- People consume goods and services for many reasons, varying from survival to symbolic communication, to a need to comply with social expectations.
- Consumption has been growing rapidly since the Second World War and, despite a temporary slowdown caused by financial instability, this growth is set to continue.
- Increased consumption does not always improve the quality of life of individuals in developed countries. Indicators of social well-being show limited connections to material wealth.
- Consumption of goods and services leads to significant environmental damage and current levels and patterns of consumption are unsustainable over the long term.
- The public sector spends large sums of money on influencing consumption through tools such as information campaigns, taxes, and subsidies (e.g. for energy saving).
- Understanding the wider context for consumption – and what drives people to consume – can help in the design of interventions that are more effective in changing consumption.
- It is unlikely that promoting sustainability as requiring sacrifice (e.g. in terms of standards of living) will lead to wholesale and lasting uptake of sustainability initiatives.
- Necessary interventions are likely to include sustainable production initiatives, promotion of more environmentally friendly forms of consumption, and an alternative to the current consumption paradigm that is strongly based on assumptions of continued economic growth.
- Improvements in happiness and well-being could be promoted to improve the palatability of sustainable consumption initiatives. This approach would embody a different social paradigm

## AN INTRODUCTION TO SUSTAINABLE CONSUMPTION

This paper considers key questions around sustainable consumption including:

- What is sustainable consumption?
- Why is sustainable consumption important?
- What drives people to consume goods and services?
- How can consumption be influenced?
- What broad strategies exist for moving towards sustainable consumption?
- What progress is being made towards sustainable consumption policies around the world, and in New Zealand?
- Could sustainable consumption be a good thing for New Zealand?

## WHAT IS SUSTAINABLE CONSUMPTION?

The most commonly used modern definition of sustainable consumption is that agreed at the Soria Moria Symposium on Sustainable Consumption and Production in Oslo in 1994:

*The use of goods and services that respond to basic needs and bring a better quality of life while minimising the use of natural resources, toxic materials and emissions of waste and pollutants over the life cycle, so as not to jeopardise the needs of future generations.*

Numerous other definitions have been proposed and have slightly different emphases. In general, the focus includes all, or a subset of, the following subjects:

- Satisfying human needs
- Protecting the environment
- Endorsing inter- and intra-generational equity
- Improving well-being and quality of life
- Ensuring economic growth
- Assigning responsibility for action

This paper discusses sustainable consumption specifically in the context of meeting needs, improving well-being and protecting the environment for both present and future generations. This

focus reflects the prevalence of these themes in sustainable consumption literature. However, it is acknowledged that other aspects of sustainable consumption (including those relating to social and cultural sustainability) may be equally pertinent.

In this section 'consumption' refers to goods and services which are used, or used up, by individuals or households. This paper focuses on individual and household consumption rather than consumption by, for example, businesses or the public sector. Focusing on goods consumed by individuals and households does not preclude consideration of the lifecycle impacts of these goods consumed in other sectors (e.g. during production). It does, however, allow more detailed consideration of the reasons for consumption and the possible interventions to alter consumption than would be possible under a broader approach to consumption in different sectors.

## A BRIEF HISTORY OF SUSTAINABLE CONSUMPTION AND 'NEEDS'

Sustainable consumption is a relatively new term; it entered common usage only after the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro in 1992<sup>1</sup>. However, discussions of notions similar to sustainable consumption can be traced back at least as far as Aristotle, and his construction of consumption is still useful today. Three categories of demand for goods can be identified through Aristotle's work on desires:<sup>2</sup>

- Items that human beings need to survive (e.g. food); acquiring these things is always 'good' because they are necessary for survival
- Items that are desired (but not needed) and which are not harmful (e.g. strawberries); acquiring these things is good because they increase satisfaction with life even though they are not necessary to meet fundamental needs
- Items that are desired (but not needed) and that have harmful effects (e.g. cigarettes); acquisition of these items is bad because, while they may be desired, they are actually detrimental to well-being

This classification, and its distinction between 'good' and

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Hereafter, the term 'goods' is used to refer to both goods and services

'bad' consumption, is mirrored by many modern definitions of sustainable consumption (including that from the Oslo Symposium quoted above). Both Aristotle's classification and many definitions of sustainable consumption prioritise the meeting of needs, maximisation of satisfaction with life, and avoidance of the harmful effects of non-essential consumption. These three elements will be revisited in the next section.

Aristotle also firmly acknowledged, alongside material needs and desires, the existence of non-material needs and desires such as friends, political power and security. Expansions and clarifications of what a person 'needs' have been attempted by more recent authors. Abraham Maslow, in 1943,<sup>3</sup> famously ordered different human needs in a hierarchy according to the priority that is placed on achieving them. He put survival needs (e.g. food and sleep) first; needs for safety, love, esteem and self-actualisation (which includes elements such as creativity and spontaneity) follow in that order.

In the 1980s, Amartya Sen pushed for disengagement of the dominant economic association of 'needs' with material possessions. His Capability Approach considers not the material possessions belonging to people, but those people's abilities to function in society and to transform resources into valuable activities. He suggests that we should ask:

*Are [people] well nourished? Are they free from avoidable mortality? Do they live long? Can they take part in the life of the community? Can they appear in public without shame and without feeling disgraced? Can they find worthwhile jobs? Can they keep themselves warm? Can they use their school education? Can they visit friends and relations if they choose?*<sup>4</sup>

Sen's work in this area was part of a 'humanist revolution' in welfare economics and contributed to the creation of the United Nation's Human Development Index (HDI). The HDI has been credited with popularising understandings of well-being in human development and is now used as an alternative to measures of material wealth (e.g. GDP) in measuring human development across countries and over time.<sup>5</sup>

History, then, indicates a longstanding connection between notions of consumption and human needs and desires. The

next section considers the relevance of this topic in modern society.

## WHY FOCUS ON SUSTAINABLE CONSUMPTION?

A basic enquiry into the sustainability of consumption of any given good or service could still ask the same questions that Aristotle asked over 2,300 years ago:

- Is consumption needed?
- Does consumption improve satisfaction with life?
- Does consumption cause harm?

Each of these questions is addressed below in the context of consumption in New Zealand.

### Is consumption needed?

Clearly, consumption in New Zealand today includes many goods and services that are desired but not required. People cannot survive without food, but can easily do so without ipods, home spa pools, and jet boats. In fact, only a small proportion of what is consumed in New Zealand now is actually necessary for survival. This means that most of the nation's current consumption is desired rather than needed – which means that its value can be judged according to whether it improves satisfaction with life and whether it causes harm.

### Does consumption improve satisfaction with life?

Although people desire material wealth, there is a large body of evidence showing that material wealth, beyond a certain point, does not improve satisfaction with life. For example, in the UK the percentage of people reporting themselves as 'very happy' declined from 52% in 1957 to just 36% today despite a doubling of real incomes<sup>6</sup>. Similar results showing little or no increase in happiness as wealth rises are available from other studies<sup>7,8</sup>. This suggests that while a certain level of material wealth (one that allows individuals to meet their needs) is important to happiness, ever-increasing wealth does not lead to ever-increasing happiness<sup>9</sup>. Figure 1 shows a clear pattern in which happiness appears to increase with wealth up to a point and then level off. Indeed, residents of New Zealand report

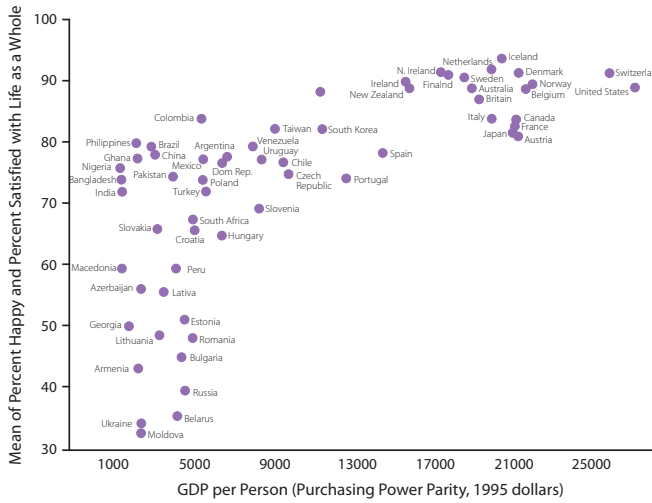


Figure 1 Happiness and average annual income (from Inglehart & Klingemann<sup>12</sup>).

themselves as being happier than those of countries like Japan, France and Canada despite considerably lower incomes.

Research has also shown that increasing material wealth does not, again after a certain point, lead to improved social outcomes in terms of qualities such as life expectancy, health, and participation in education<sup>10</sup>. The lack of a direct positive correlation between wealth and both happiness and good social outcomes has led to suggestions that countries like New Zealand could have the same kinds of social outcomes as currently experienced and have happier populations – with lower levels of consumption.

A reduction in consumption could be accompanied by shorter working hours, more time to connect with friends and family, more time for self-enhancing pursuits (e.g. education and community involvement), and indeed greater feelings of self-worth and fulfilment. This view matches assertions (including those by Aristotle, Maslow and Sen) that non-material needs are important. Furthermore, it is supported by evidence suggesting that individuals with *intrinsic value orientations* (which include elements such as personal growth, relationships and community involvement) are both happier and likely to have higher physical and psychological well-being than those individuals with *extrinsic value orientations* (including concerns such as financial success, physical attractiveness and image<sup>11</sup>).

### Does consumption cause harm?

Some types of consumption (e.g. binge drinking and smoking)

cause direct harm to individuals, and the New Zealand Government already invests in campaigns and legislation to minimise these kinds of consumption. Examples include the 2004 implementation of a ban on smoking in many public places, and the activities of the Alcohol Advisory Council of New Zealand, which pursues a remit of discouraging the overconsumption of alcohol.

Other types of consumption cause harm to the natural environment and this is a more common focus of attention in sustainable consumption debates. It is argued that consumption is putting pressure on the natural environment through activities such as:

- The generation of greenhouse gases: global carbon emissions have risen by 40% since signing of the 1990 Kyoto Protocol, which was intended to stabilise emissions of these gases amongst signatories<sup>13</sup>
- The unsustainable use of resources: e.g. it is estimated that since the development of industrial fisheries in the 1950s, stocks of large ocean fish have been reduced to 10% of pre-industrial levels<sup>14</sup>
- The use and release of toxins: e.g. use of certain agricultural fungicides has been linked to reproductive problems and birth defects in exposed animals; there is concern that similar problems could be experienced by exposed humans<sup>15</sup>

Material consumption has been consistently growing since at least the Second World War. While global population growth is, in part, responsible for this trend, population growth is slowing and is commonly forecast to continue to gradually stabilise.<sup>17</sup> Conversely, per capita growth in consumption remains strong and current levels of consumption are considered by many to be unsustainable in environmental terms.<sup>18</sup>

In summary, it seems that some types of modern consumption are unnecessary, may not improve satisfaction with life, and cause harm to the natural environment. Why, then, do we continue to pursue these types and patterns of consumption?

## Drivers of Non-necessary Consumption (low–mid)

low

EXTENT OF INFLUENCE OF OTHERS ON INDIVIDUALS' CONSUMPTION DECISIONS

mid

### FUNCTIONALITY

Something that isn't necessary to survival can be useful and desirable because of the function it is designed to perform.

E.g. chocolate tastes good, lights make it easier to see in the dark and washing machines reduce the time and effort needed to clean clothes:

*A decision based purely on the function of a good can be an individual decision.*



### SELF-IDENTITY & PERCEPTION

Consumption can adjust and reinforce consumers' own identities through the socially defined symbols attached to goods.

E.g. an individual may purchase organic vegetables for taste. Successive purchases lead the individual to adopt other self-perceptions symbolically linked to organic produce, such as opposing the use of synthetic chemicals in the production of food:

*The consumption decision does not relate directly to others but the symbolic meanings attached to goods are socially defined and influence the consumer's self-identity*



### DREAMS & IDEALS

Consumption provides a link for consumers between their real worlds and their dreams and aspirations.

E.g. new clothes may not make an individual more successful or more wealthy, but (through reference to social symbols around what the clothes mean) they may make the individual feel as though those achievements are closer, or that they can identify with social groups with those qualities:

*This is usually seen as a subset of self-identity and perception.*



### CONSPICUOUS CONSUMPTION

Symbolic consumption can be an important means of communication between individuals and groups.

E.g. Thorstein Veblen used the concept of 'conspicuous consumption' in 1899 to describe the nouveau riche using their wealth to show membership of the upper class. Fashion is often an example of conspicuous consumption:

*The consumption decision is not only influenced by socially defined symbols but is also used to influence others' perceptions of the consumer*



Figure 2 Drivers of non-necessary consumption



## Drivers of Non-necessary Consumption (mid–high)



## SOCIAL &amp; SEXUAL COMPETITION

Individuals competing for status are driven to buy items which are attractive to others and demonstrate desirable traits in themselves.

E.g. "...the Bentley is tantamount to the...peacock tail"<sup>20</sup>. A peacock's tail demonstrates fitness and attracts a mate, similarly a Bentley may be a demonstration of wealth and success and may attract other people:

*This is usually seen as a subset of conspicuous consumption.*



## SOCIAL NORMS

Guidelines about the kinds of behaviours, attitudes and beliefs that are acceptable in a group or society; failure to conform to social norms can attract disapproval, criticism or exclusion from social groups:

E.g. it may be considered unacceptable to attend a wedding or baby shower without taking a gift:

*Consumption decisions are influenced or constrained by social norms.*



## LOCK-IN

A situation in which social, physical, and economic structures restrict the choices consumers can make about purchases:

E.g. it becomes necessary to own a computer as more social functions require them:

*Consumption may appear optional but in reality there are few or no available alternatives.*



## ECONOMIC GROWTH

Growth in consumption is embedded in modern capitalist economies; without it social, political and economic stability are threatened.

E.g. governments have recently released stimulus packages to deliberately drive consumption and keep economies growing;

*Consumers are constrained by national and international social, political and economic structures that pervade many aspects of life.*

mid

EXTENT OF INFLUENCE OF OTHERS ON INDIVIDUALS' CONSUMPTION DECISIONS

high

Figure 2 Drivers of non-necessary consumption (cont'd)

## DRIVING THE DESIRE TO CONSUME

The drivers of non-necessary consumption are complex and multifaceted. Economics offers perspectives that can help in understanding the consumption decisions people make; however, there is some disagreement around the existence or importance of certain influences on consumption decisions. In particular, there is a great deal of debate around the extent to which consumption decisions are the result of individual rational choices or are influenced (or constrained) by the social, physical and economic structures within which individuals live. Standard neoclassical economics is based on the assumption that, in general, decisions are the result of individual rational choices; it is recognised that individuals have different preferences, but neoclassical economics stops short of investigating the origins of these preferences. Behavioural economics, in contrast, argues that each person's behaviour is strongly influenced by, and in turn influences, the structures and social groups within which that person lives.<sup>19</sup>

Some drivers of non-necessary consumption are illustrated in Figure 2 (previous page), these are roughly ordered according to the extent to which they imply individual decisions (towards the left) or decisions influenced by others (towards the right). Of course, these drivers do not occur in isolation from each other and complex interactions between them may influence a single consumption decision.

In addition to social influences on consumption, theories of rational choice fail to incorporate choices that may be individual but not rational. For example, habitual behaviours that remove the need for an individual to consciously evaluate alternatives in a decision-making situation are outside the scope of neoclassical economic theory.<sup>19</sup> A combination of neoclassical and behavioural economics can help explain both the individual and social, rational and less rational, consumption decisions made by individuals and households.

## INFLUENCING CONSUMPTION

The drivers of consumption are complex and multifaceted. Any attempt to influence consumption will need to take account of

the reasons *why* consumption of any particular good or service is occurring and focus on interventions that address those drivers. For example, individuals who would like to reduce their consumption of goods and services may be completely unwilling to do so if this means breaking a social norm and experiencing the disapproval that may result. Similarly, if owning a fast car is regarded as a symbol of wealth and success then taxing fast cars to make them more expensive may reinforce the symbolism and have very little damping effect on the purchase and use of these cars. In contrast, promoting the notion that successful individuals are those who can afford to spend more quality time with loved ones could have a more significant impact on consumption (and probably also well-being).

There is no strong, documented reason why habits, identities, symbolism, social norms, lock-in and so on should not be used to encourage adoption of a consumption paradigm that is compatible with environmentally friendly behaviours and happier and healthier lifestyles. However, a commonly cited argument against strategic attempts to influence consumption is that of consumer sovereignty. At its most extreme, it is argued that, in a liberal democracy, the individual has a *prima facie* right to self-determination and any attempts to restrict or alter consumption choices amount to unjustified coercion. Rebuttals of this argument focus on the principle that *'the need to prevent harm is always an appropriate reason for coercion'*<sup>21</sup>. Application of this principle is displayed in regulations such as smoking and alcohol licensing laws.

Further rebuttals argue that individual choices are so inextricably caught up with different social dynamics that they cannot be considered free from external influence. For example, marketers commonly attempt to manipulate peoples' aspirations and consumption, and the State has a strong influence on social norms through legislation, education, spending priorities and so on<sup>22</sup>. Under these conditions, it can be argued that consumer sovereignty is a flawed notion and that conscious attempts to influence consumers towards sustainable consumption are unlikely to be any more damaging to self-determination than are existing influences on consumption.

Economic growth, however, may be a more significant challenge to attempts to influence consumption. The diagram showing drivers of consumption (Fig. 2) included 'economic growth' on the far right-hand side, indicating that economic growth has a strong influence on individual decisions; this warrants further discussion. Economic growth, which requires the continued consumption of goods, is often regarded as a fundamental – and desirable – feature of capitalist economies; it is also commonly considered necessary for the maintenance of social, political and economic stability<sup>23</sup>.

The rationale for support of continuous economic growth can be articulated as follows:

- Companies are driven (by profit motives and competition) to improve efficiency
- Improvements in efficiency lead to an ability to produce the same amount of goods with fewer staff.
- If demand for goods remains constant, and the same goods can be produced with fewer staff, then unemployment results
- Unemployment reduces demand for goods, which leads to further unemployment, reductions in well-being, diminishing social and political satisfaction and, eventually, unrest<sup>24</sup>
- Growth in consumption of goods is therefore required to avoid a 'vicious circle' of decreasing demand, increasing unemployment, and decreasing welfare and stability

Consumers are therefore locked into increasing consumption through their participation in a society and economy that is dominated by a paradigm of economic growth. This paradigm is so dominant that it is very, very difficult for most people to see any alternative at all. The perceived need for economic growth drives government policy, financial decision-making and social expectations.

Nonetheless, as explained above, ever-increasing wealth and consumption do not necessarily lead to ever-increasing happiness, and evidence is accumulating that increasing wealth can be accompanied by decreasing levels of well-

being.<sup>25</sup> Recent history has shown that economic growth, increases in consumption, and the growing negative effects of consumption have gone hand in hand. The next section explores whether these links can be broken.

## STRATEGIES FOR MORE SUSTAINABLE CONSUMPTION

The literature suggests that there are (at least) two alternative strategies for moving towards more sustainable consumption:

- Breaking the link between consumption and negative impacts within the current economic growth paradigm
- Developing a new paradigm for society that is not dependent on economic growth and ever-increasing consumption

Each of these strategies is discussed below.

### Breaking the link between consumption and negative impacts

Historically the negative impacts of consumption have been addressed through a focus on more sustainable production, assuming that negative environmental impacts can be reduced through more efficient production of goods. However, as the World Business Council for Sustainable Development has recently commented:

*...it is becoming apparent that efficiency gains and technological advances alone will not be sufficient to bring global consumption to a sustainable level; changes will also be required to consumer lifestyles, including the ways in which consumers choose and use products and services*<sup>26</sup>

This statement echoes an increasingly common view that sustainable production initiatives need to be complemented by initiatives focusing on sustainable consumption. Campaigns aimed at breaking the link between consumption and negative environmental impacts are now common around the world; often they focus on discouraging the consumption of products with poor environmental credentials and encouraging the consumption of those products thought to be less damaging

to the environment. Examples of these kinds of initiatives include:<sup>27</sup>

- The (voluntary or compulsory) labelling of products to show whether they can be recycled / whether they are organic / how much energy they require to run / etc.
- Taxes levied on electricity consumption / inefficient vehicles / plastic bags / etc.
- Subsidies and incentives applied to 'environmentally friendly' consumption such as the installation of home insulation, or the purchase of fuel-efficient cars
- Communication campaigns including 'Clean Air Days', 'Earth Hour' and 'Zero Waste' initiatives
- Environmental education schemes – mostly through schools but expanding in some countries to more general consumer education
- Corporate reporting and marketing to encourage consumers to choose products produced by firms taking action on sustainability
- Sustainable procurement policies implemented in public sector institutions

While some of these kinds of initiatives take account of the different drivers of consumption discussed above, many operate assuming that the provision of accurate information about goods and the use of differentiated prices will result in individuals making rational economic decisions. The effectiveness of these initiatives may be improved through consideration of the drivers for the consumption behaviours that they attempt to change, and how to influence these drivers.

The initiatives described above most commonly aim to shift consumption between close alternatives (recyclable plastic instead of non-recyclable plastic, more efficient vehicles instead of less efficient vehicles, etc.). More fundamental shifts in consumption may also be possible, and moving consumption towards goods and services with high economic values but low environmental impacts may allow much greater reduction in the negative impacts of consumption. For example, a famous painting may have a high financial cost but a low

## box 1: DECOUPLING

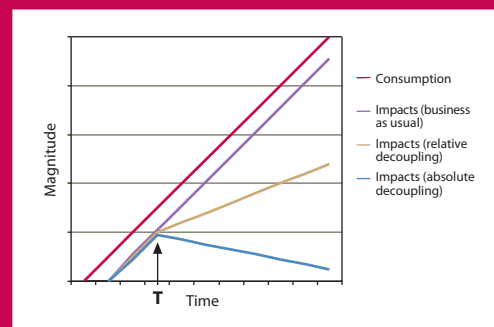
Decoupling is a commonly used term in sustainable consumption debates. It basically refers to breaking the link between (or 'decoupling') consumption and negative impacts.

*Absolute decoupling* – describes a situation in which the negative impacts of the goods consumed gradually fall even if the amount of goods consumed continues to rise over time.

*Relative decoupling* – is used to describe a situation in which each individual good consumed has gradually lower negative impacts over time but the total magnitude of impacts can continue to rise if the amount of goods consumed increases.

This diagram illustrates the impacts of consumption under three different scenarios (each taking effect from time 'T').

- under business as usual, impacts track consumption over time
- with relative decoupling, impacts increase but more slowly than consumption over time
- with absolute decoupling, impacts fall over time



environmental impact; in contrast, one litre of petrol used to fuel a car may have a much lower financial cost but a much higher environmental impact<sup>28</sup>. While artwork and petrol may not be direct substitutes for each other, different ways of living may allow for the emergence of different combinations of consumption. Through shifting consumption to high value but low impact goods and services it may be possible to increase consumption while reducing environmental impacts.

Politically, 'decoupling' of consumption and negative impacts (see Box 1) is appealing because it avoids the uncomfortable perception that living sustainably necessitates reducing consumption of goods and services and so requires self-sacrifice.<sup>29</sup> If absolute decoupling is successful, rates of consumption can continue to rise while negative impacts of consumption fall. However, even if this can be achieved initially, decoupling can be compromised by the so-called 'rebound effect'. The rebound effect describes the way in which, as impacts fall, consumers feel able to consume more – which then increases impacts. This effect has been demonstrated in areas such as increased use of energy efficient appliances: as appliances become more efficient and cheaper to run, consumers buy more appliances and use them more often.<sup>30</sup>



Hairshirts were used in some religious traditions to induce some degree of discomfort or pain as a sign of repentance and atonement. They are commonly associated with self-sacrifice.

From: [http://en.wikipedia.org/wiki/Hair\\_shirt](http://en.wikipedia.org/wiki/Hair_shirt)

Another significant criticism of decoupling is that the link between consumption and impacts may be so strong, and the magnitude of impacts so great, that it will be difficult to reduce negative impacts sufficiently while consumption continues to increase. Changing consumption habits towards 'greener' goods has been described as '*...at best, a form of advertisement for the idea that we should live sustainably*',<sup>31</sup> which in practice has very limited benefit in environmental terms. Similarly, Tim Jackson highlights the enormity of the challenges of sustainable production with an example showing that technologies to reduce the carbon intensities of economic outputs would need to be developed at a rate 10 times faster than is currently happening just to meet current targets for greenhouse gases.<sup>32</sup> A massive step-change in the levels of commitment to, and rates of progress toward, this goal would be necessary for this strategy to be successful.

### Developing a new paradigm for society that is not dependent on economic growth

The second potential strategy for achieving sustainable consumption is to develop a form of social organisation that is not dependent on economic growth. This would allow

If needs and desires can be met more fully with less – rather than more – consumption, then notions of hairshirts may be misplaced, and notions of silk shirts more appropriate.



consumption to stop growing and introduces the possibility of consumption actually declining. As consumption falls, the negative impacts of consumption could be expected to fall accordingly. This strategy has been described as politically unpalatable<sup>33</sup> as reductions in consumption have previously been associated with falling standards of living and notions of 'hairshirts'. Furthermore, without changes in the drivers of consumption, any strategy to reduce consumption would be likely to be resisted by consumers. However, as to the possibility that meeting needs and desires more fully with less material consumption (e.g. with shorter working hours and more fulfilling use of leisure time) is more widely considered, the unpalatability of consuming less can also be questioned:

*If social and psychological needs really are ill-served by modern commodities, then it should be possible to live better by consuming less, and in the process reduce our impacts on the environment.*<sup>34</sup>

A pertinent question, then, is how can the needs and desires that consumption addresses (including those relating to social status, dreams and ideals) be met by non-consumptive activities? This question has not yet been answered but is attracting considerable attention. Economists are engaged in developing economic models based on stable consumption rather than expectations of continued growth. For example, Canadian economist Peter Victor has developed a model of the Canadian economy that includes a no-growth scenario that sees falls in unemployment, poverty, debt and greenhouse

gas emissions, while allowing for increases in leisure time<sup>35</sup>. Victor's recent book *Managing without Growth: Slower by Design, Not Disaster* emphasises that it may be possible to design an economic system outside the paradigm of growth while acknowledging that slowing down without careful planning for this scenario could be disastrous.

### Choosing a strategy for sustainable consumption

This section has discussed two alternative strategies for moving towards more sustainable consumption:

- Breaking the link between consumption and negative impacts within the current economic growth paradigm
- Developing a new paradigm for society that is not dependent on economic growth

Each strategy has its own merits; for example, some negative impacts of consumption have already been reduced through initiatives improving the efficiency of production and directing consumption towards the least damaging of the available goods and services. Simultaneously, new work by ecological economists is suggesting that it may be possible to strategically and systematically move to lower consumption and a non-growth economy at the same time as reducing the negative impacts of ongoing consumption. If a shift to a non-growth economy incorporates strategies to facilitate improvements in well-being and happiness, then this option may also avoid the political unpalatability with which it has commonly been associated.

At this stage it is difficult to determine which strategy, or combination of the two strategies, can most effectively contribute to realisation of more sustainable patterns of consumption.

## MOVING FORWARD...

### ...globally

A wide variety of policies and actions target consumption issues. These are organised differently by different governments and intergovernmental agencies. Those intergovernmental agencies and governments that have put together coordinated sustainable consumption strategies have, to date, largely

prioritised policies attempting to decouple consumption and negative impacts. For example, the website of the European Commission's Directorate-General for the Environment states:

*The great challenge faced by economies today is to integrate environmental sustainability with economic growth and welfare by decoupling environmental degradation from economic growth and doing more with less.*<sup>36</sup>

However, the publication of *Prosperity without Growth?*, a recent UK Sustainable Development Commission report calling for an end to economic growth, is a first step towards opening up a debate about alternative economic paradigms that may deliver more sustainable consumption. Charles Siegel (Sierra Club Sustainable Consumption Committee member) wrote:

*When a British government commission publishes a report calling for an end to economic growth, it suddenly seems that we live in a world that is changing its direction.*<sup>37</sup>

A change in direction is certainly the goal of the Marrakech Process, a global, multistakeholder process led by the United Nations Environment Programme (UNEP) and the United Nations Department of Economic and Social Affairs (UN DESA) and with the participation of national governments, development agencies and civil society. The Marrakech Process supports the development of a 10-year 'Framework of Programmes' on sustainable consumption and production aimed at promoting greener economies, greener business models, and more sustainable lifestyles. The Framework of Programmes is due to be launched in 2011 and will see sustainable consumption and production prioritised at an international level into the 2020s.<sup>38</sup>

Alongside various bodies of the UN, the Organisation for Economic Cooperation and Development (OECD<sup>39</sup>) and the European Union (EU<sup>40</sup>) have also prioritised work on sustainable consumption. In addition, a number of individual countries including the United Kingdom, Austria, France, Norway, and Sweden have overall national strategies for sustainable consumption.<sup>41</sup>

### ...in New Zealand

While decoupling has historically been the preferred option of the New Zealand Government, recent statements have

contained indications of a growing acceptance of the idea of reducing consumption. For example, the summary of the report 'Environment New Zealand 2007' states:

*Today, many New Zealanders are interested in reducing the impact of their purchasing habits on the environment. We can do so by buying only what we need, choosing products with less packaging, and choosing durable products instead of disposable ones.*

This appears to advocate a combination of decoupling and of targeted reductions in consumption. Formalising such a mixed approach could potentially lead to innovative new policy in this area.

The debate over decoupling versus reductions in consumption is likely to intensify on global political agendas. As environmental degradation worsens and environmental impacts such as climate change and resource depletion become more pronounced, calls for action are likely to become stronger and more frequent. New Zealand exporters will be increasingly exposed to scrutiny in their key international markets. The development of a coherent sustainable consumption strategy would facilitate a proactive response and integrate current policies on consumption (taxes, subsidies, ecolabels, etc). Beyond the critical economic and environmental needs that can be addressed with sustainable consumption policies, New Zealand also has an opportunity to focus on improving the quality of life of New Zealanders through establishing better ways to fulfil the needs and desires of citizens through non-consumptive activities.

## A VISION

It is entirely plausible that New Zealand could strive to become a society in which consumption is sustainable; that is, a society in which needs are met, satisfaction with life is high, and damage to the environment is minimised.

Lessons can be drawn from the existing literature about how to influence and encourage formulation of a more beneficial consumption paradigm. This new paradigm may include green consumption, cleaner production, and an alternative to growth economics. Living sustainably is currently often promoted as

requiring sacrifice or 'doing without'. It seems unlikely that promoting sustainability in this way will lead to widespread and lasting uptake of sustainability initiatives. This means that it is necessary to identify something that is *better* than current lifestyles and standards of living so that this can be promoted to New Zealanders. Could there be a satisfying way of living that facilitates high cost but low impact consumption?

Society faces a choice between inaction (which is likely to result in reduced well-being and happiness, and ongoing degradation of the environment) and concerted action to create something altogether better. It is time to start seriously investigating the possibilities.

## WANT TO FIND OUT MORE?

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For the Author's contact details see page ii

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# We are what we buy - aren't we?

The influence of identity on behaviour and consumption

CHAPTER 15 : HATCHED

Claire Mortimer and  
Wokje Abrahamse



## Summary

*What influence does identity have on people's behaviour and consumption, and should this influence be considered within sustainability policies and programmes?*

Concern over the social and environmental impacts of modern lifestyles and consumption patterns has generated a range of new policies and programmes aimed at shifting consumer behaviour in a more sustainable direction. Internationally the public is increasingly being encouraged for instance to drive less, consume less and recycle more<sup>1</sup>.

However, changing consumer behaviour is extremely difficult because our behaviour driven by a multitude of factors including *motivations* (e.g. attitudes, values, norms), *abilities* (e.g. skills, knowledge) and *opportunities* (e.g. price, availability). One of these motivational factors – the role of self-identity and group identity in consumer behaviour – is receiving increasing attention.

Material goods and services often have strong symbolic meanings which people use (consciously or unconsciously) in order to construct their self-identity, to communicate that identity to others, and to align themselves with certain ideals and social groups. Therefore because consumption choices often reinforce self-identity and a sense of affiliation to social groups, people may not be willing to change their consumption choices even when presented with knowledge, opportunities and incentives to do so.

In order to be successful, interventions aimed at changing a specific consumer behaviour will need to identify any barriers created by the target audience's symbolic association with the desired behaviour. For example, research for one public transport programme found that the target audience associated travelling by bus with a lack of professional success<sup>2</sup> and this association created a barrier in getting them to reduce their car trips and use the bus service.

Communication messages may be tailored to specific audiences so as to address identity barriers. For example, if people associate their meat consumption with a healthy diet and being a health conscious person rather than with environmental impacts and being an environmentally conscious person, messages aimed at reducing meat consumption may be better framed around the negative health implications of eating (too much) meat rather than on appeals to help the environment.

However, to significantly shift consumption patterns within society, the symbolic meanings of many material goods and certain lifestyles will need to be renegotiated; for example, using public transport will need to be perceived as something that smart and sophisticated people do. Because symbols are inherently a social process, this renegotiation will be undertaken both at an individual and societal level and will require interventions that collectively target individuals, groups and society<sup>3</sup>.

Considering the social processes involved and the commercial marketing budgets that have been spent in creating symbolic associations with goods and lifestyles, this is a challenging and long-term task. But successful examples do exist: internationally, anti-fur campaigners used shock advertising to shift attitudes and norms around wearing fur garments; and after years of social marketing, support programmes and regulation, smoking is increasingly seen as an addictive and anti-social behaviour in New Zealand.

## WHAT IS IDENTITY AND HOW IS IT CONSTRUCTED?

This section provides an overview of current literature that explores the relationship between identity and sustainable behaviour and consumption. We look first at the close interrelationships between individual and group identity and to a lesser extent national identity.

### Self-identity

'Self-identity' can be defined as the characteristics individuals see as representing who they are, including traits, values and opinions.<sup>4,5</sup> Self-identity also encompasses a person's psychological sense of continuity, that is, who I was, who I am now and who I will become.<sup>6</sup>

Each of us also develops a number of 'role identities'. A role identity comprises those characteristics we attach to ourselves within a specific social role we play (e.g. nurturing mother at home, analytical engineer at work). People will switch between these role identities as they move between home, work and social situations, while their self-identity is assumed to remain constant.<sup>7</sup>

We construct our identities through a continual process of social interactions, through which our identities change over time.<sup>2</sup> Mead (1934, 1956)<sup>8</sup> describes this process of social interaction as 'social conversations' in which we enlist social symbols to negotiate our identities with others. These symbols include language but also incorporate the symbolic meanings associated with objects, people, rituals and, as explored in this paper, lifestyles and material goods.

### Group identity

A person's self-identity not only encompasses unique characteristics that set them apart from others, but also includes characteristics that are derived from their membership of social groups<sup>9</sup> (e.g. being an artist or a vegetarian). A person will often adopt the symbolic traits that define those social groups as part of their own self-identity. For example, a teenager might start smoking in order to align herself with a particular social group at her school, or start wearing bling and hoodies to associate herself with hip-hop culture.



Understanding and influencing group identity is critical in understanding and influencing individual behaviour. According to social identity theory,<sup>10</sup> society organises itself into different groups who have defined their identity through identifiable distinctions from other groups. This theory argues that key aspects of our behaviour are motivated by a need for intra-group solidarity and inter-group competition. Interestingly this competition exists even when there is no goal or resource scarcity to trigger group<sup>11</sup> competition. For instance, researchers found that by merely dividing people into groups on the basis of whether they preferred a certain painter (Klee or Kandinsky), triggered intergroup competition.<sup>12</sup>

Dr Seuss's famous 'butter battle book' reflects this concept. It is a tale of two groups whose differences in identity were based on which side they buttered their bread; this difference escalated to the creation of a weapon that could destroy them both. The book was an allegory of the arms war between the US and Russia and it was banned in public school libraries in many states in the US;<sup>13</sup> and this leads us on to national identity.

### National identity

A sense of national identity differentiates us from other nations and may bind us together through the depiction of common traits and values. There are conflicting views on whether national identity is needed or indeed possible within today's pluralistic and fragmented society<sup>14</sup> and there is little research in New Zealand on whether national identity influences environmental consumption and behaviour. Indeed many of the characteristics commonly attributed to New Zealand identity; e.g. 'clean and green' and 'giving everyone a fair go', have been described as 'myths to live by' versus New Zealanders day-to-day practice.<sup>15</sup>

## HOW IDENTITY INFLUENCES BEHAVIOUR AND CONSUMPTION

Drawing on a range of literature we look now at how identity is understood to influence our consumption patterns and lifestyles.

### 1. What we buy reinforces our understanding of who we are.

We frequently buy goods and services which we, or our group/society, have attached symbolic meaning to, in order to reinforce our understanding of who we are<sup>7</sup> and to construct narratives by which to make sense of our lives. For example when I buy environmentally friendly products I reconfirm to myself that I am a person that cares about the environment. As I continue to do so, I strengthen this aspect of my identity.

### 2. Our consumption choices can help us bridge the gap between our real and ideal world; who we are now and who we want to be.<sup>16</sup>

For example, I buy the fast car to make me feel more powerful even if in reality I feel powerless in my life, or I buy the greener car to make me feel environmental even if my ecological footprint is huge. But as we usually never bridge the gap to our ideal by simply buying things, this may give rise to specific emotional responses, which in turn creates specific behaviours. Dittmar,<sup>17</sup> for example, demonstrated how the discrepancy between actual and ideal self can be used to predict excessive buying behaviours – as one consumer good fails in our attempt to reach our ideal, we move onto the next.

### 3. Our consumption choices communicate who we are to others, affiliating us to certain social groups and ideals.

As mentioned previously, we often adopt the visible characteristics of the social groups we associate ourselves with. The teenager smoking at the back of the school bike sheds may be using the activity of smoking to align herself with the 'cool' social group at her school, the group made up of individuals prepared to take risks and buck the rules. This adoption of group behaviours can help embed each of us within our chosen social groups and it can communicate the ideals that represent who we are (and conversely who we are not) to others.

Some researchers also believe that having shared group symbols either embedded in consumer goods or through other



means such as rituals may help individuals and groups maintain social resilience in the face of cultural shifts and social shocks,<sup>18</sup> that is, they enable people to hold onto a form of shared and constant identity when the world around them is rapidly changing.<sup>19</sup> For example, new immigrants may continue to eat the same food and share the same festive celebrations in a new country. Asking them to change consumption patterns, for

Some scholars argue that the symbolic projection of material goods is pathological of Western modern culture.<sup>5,15</sup> However, material goods have held symbolic meaning throughout human history. The State has also had a history of attempting to influence material consumption. For example, in the 16th century, the Elizabethan Sumptuary Laws dictated the style of clothing to be worn by individuals, creating an immediate way to identify social rank: only royalty were permitted to wear clothes trimmed with ermine, lesser nobles' trim was fox and so on. The penalties for violating the Sumptuary Laws included loss of property and even life. The laws, which could never be adequately enforced, aimed to control frivolous expenditure (so that horses and weapons were not neglected – goods considered important for a country often at war) and aimed to ensure that a specific class structure was maintained, particularly against the threat of the increasingly wealthy merchant class.

Today we still use clothing to symbolise social standing but the State no longer regulates against our aspirations and social mobility – instead it regulates the consumption of goods considered to be the social threats of today, such as drugs and tobacco

example to reduce gift-giving linked to traditional ceremonies, may therefore represent a form of risk to their own sense of self-identity and continuity.

#### 4. Consumption choices can place us in a social order.

Some material goods, for instance the type of car we drive or the house we live in, help display our social status. If maintaining social status is important to us, we may be compelled to consume more and more, because as Hirsch<sup>20</sup> points out *'we must run faster and faster to stay in the same place, because our competitors are also engaged in the race.'* This has played out in intergenerational differences in what society considers to be affluence because *'one generation's luxury is the next generation's necessity.'*<sup>21</sup>

## NATIONAL IDENTITY AND SUSTAINABLE BEHAVIOUR AND CONSUMPTION

How much does New Zealand's national identity influence our environmental behaviour and consumption? Morris<sup>22</sup> comments on the following values that have been attributed to New Zealanders with what he terms 'amazing determination'. They are: punching above our weight, a profound sense of fairness, a pragmatic optimism that 'she'll be right mate', and a love for this 'pure' and 'green' land and for each other. Morris suggests these taken together can symbolise our collective spirit.

While a 'love for the pure and green land' forms part of our understanding as New Zealanders, it is unclear whether this influences our day-to-day reality and behaviour. Does it make us switch the lights off, drive less, or reduce the waste we throw away? Rather, the clean green identity may be safely tucked away in the hinterlands – places we cherish and visit on holiday; it may be a 'myth to live by' which has negative as well



"Most New Zealanders believe they like new and exciting challenges. They don't really. They like new and exciting packaged food. And new and exciting appliances. It's not the same thing."<sup>23</sup>



as positive influences on the New Zealand environment. The clean green image survives in part because 'a superficial glance out the window affirms this is – even though the lush pasture has been drenched in chemicals, and the bush we see is just remnants of a far, far, larger forest'<sup>23</sup>

The phrase 'clean and green New Zealand' did not enter circulation until after the 1960s<sup>19</sup> but it is a phrase regularly used and commented on in academic literature, the media and by government. Certainly New Zealand advertising has capitalised on the New Zealand identity of 'love for the pure and green land'. Countless TV car ads show middle-aged men driving through vast and empty New Zealand landscapes – symbolising a sense of identity with freedom and power. However, the reality for the car buyer may be far removed, however, for example sitting still in rush-hour traffic on an Auckland motorway.

In fact, New Zealanders' identification with the environment appears to be more closely associated with the aesthetic and recreational values derived from the natural environment. In the many public environmental surveys, New Zealanders commonly claim that they value the environment. Analysis of those surveys show, however, that while New Zealanders value the aesthetics of the landscape – the recreational benefits of

open space and the coast, and the odd iconic species – they attach less value to the more mundane fauna and flora that make up New Zealand's biodiversity.<sup>24</sup> This may make it more difficult for agencies to gain support and action from New Zealanders to protect those seemingly mundane but vital native species and to protect whole ecosystems such as scrublands.

What about New Zealanders 'love for each other' and our altruistic values? In an address to the Local Government Managers Conference in New Zealand in 2007, John Ralston Saul, the Canadian writer and philosopher, responded to a local body politician's criticism of Wellington ratepayers, who, she complained, wanted more from government but wanted to pay less for it. Ralston Saul replied that as a poster child for neoliberal policies throughout the 1980s, New Zealand and its public service moved from treating the public as citizens belonging to a community to regarding them as customers within the marketplace, and as customers it is not surprising they have become focused on their own self-interest.

Arguably, if we want New Zealand society to consume more sustainably, we need individual New Zealanders to be prepared to act and consume for the common social, and environmental good rather than to make their choices based upon solely what benefits them individually in the short term. If Ralston Saul's insight is correct, and this would be worth testing through research, it raises the question of how we might reactivate the identity of citizenship and civil society as a means to increase the sustainable values and consumption of New Zealanders.

## SELF AND GROUP IDENTITY AND SUSTAINABLE BEHAVIOUR AND CONSUMPTION

While the relationship between New Zealand's national identity and New Zealanders' environmental behaviour appears unsubstantiated, research has shown clear linkages between self and group identity and people's behaviour, as demonstrated in the following research case studies.

### Case study 1: Meat consumption and self identity

Various studies have examined the relationships between food

consumption and people's identity. To illustrate, a UK study<sup>25</sup> found that people who more strongly identified with being a green consumer were more likely to buy organic produce than those with a weaker 'green' identity. Meat consumption may also be tied to people's self-identity. That is, individuals may choose to consume meat because certain meanings people attach to eating meat (e.g. meat is healthy) are consistent with aspects of their self-identity.<sup>26</sup> For example, another UK study<sup>27</sup> found that people who strongly identified with being a health-conscious person would also be more likely to say they would eat meat. The importance people attach to eating meat may therefore be an important factor to take into consideration in attempting to encourage consumers to adopt healthier and environmentally sustainable dietary choices.

This case study examined the role of identity in relation to the provision of information about meat consumption. Specifically, it examined how people respond to information about meat consumption in terms of either a match or mismatch to a certain aspect of their self-identity (i.e. importance of eating meat).

The participants in this study were first asked to indicate how important eating meat was to them personally (identity). They then either read a (fictional) newspaper article on the advantages of eating meat or an article on the advantages of being vegetarian. Both articles contained three arguments (based on health, animal welfare, and the environment), either in favour of eating meat or in favour of being vegetarian. The main message of the article (i.e. pro-meat or pro-vegetarian) either matched with their identity on how important eating meat was to them or the message did not match and therefore posed a 'threat' to their identity. Participants were asked to evaluate the information in terms of its persuasiveness (e.g. 'to what extent did you find the arguments convincing?'), and they were asked about their attitude towards eating meat (i.e. whether they had a favourable or unfavourable opinion about eating meat).

The newspaper article that advocated the advantages of eating a vegetarian diet was evaluated more negatively by respondents who strongly identified with being a meat eater. People who did not strongly identify with being a meat eater evaluated the pro-vegetarian newspaper article as more

persuasive than the pro-meat newspaper article. The results of this study therefore indicate that information that is matched to an individual's identity is judged to be more persuasive than information that is not matched.

Attitudes towards eating meat were not influenced by whether or not the information was matched to people's self-identity. In other words, attitudes towards eating meat did not shift as a result of an identity threat. A possible explanation for this is that attitudes towards eating meat may be relatively stable over time, and are not likely to be affected by a single message. Additionally, information alone may not be sufficient to encourage a change in attitudes in relation to food consumption.

The results of this study highlight the importance of examining the role of identity in relation to food consumption. The results suggest that people may respond differently to information campaigns depending on whether the information is matched to certain characteristics of their self-identity or not (e.g. the extent to which they identify with being a meat eater). This may also explain why many information campaigns do not shift behaviour, because they represent a threat to people's identity (for a more detailed account of this study see Abrahamse et al. ).<sup>28</sup>

### Case study 2. Barriers to catching public transport in an Auckland community

In 2004 the Auckland Regional Council carried out qualitative and quantitative research exploring people's current behaviour around personal transport and why they might choose or not choose to use public transport.<sup>2</sup> The results reflected the multitude of factors which influence people's behaviour including;

- *Opportunity barriers* to using public transport – in this case the lack of a pedestrian crossing to safely reach the train station and a lack of integrated ticketing across bus companies travelling the same route.
- *Ability barriers* to using public transport – in this case the lack of timetable information at bus stops and, in the case of some of the new immigrants, not knowing how to flag a

bus down or stop the bus when reaching their destination.

- *Motivational barriers* to using public transport – in this case a key motivational barrier was the symbolic associations connected with driving one's own vehicle versus catching a bus. A large number of the households in the target community were low income and were new immigrants. Many were currently catching public transport but they saw this as an interim measure until they were able to afford their own cars. In the focus groups they described being able to travel by their own car versus travelling by public transport as a symbol of achieving success in their new country.

The results of the study demonstrated that a number of interventions would be required to get people to increase their public transport trips. And while some of these interventions were relatively straight forward (e.g. timetables at bus stops, personalised travel plans, new immigrant education and security at the bus depot), the Auckland Regional Council would also need to shift people's associations with public transport away from being a mode of transport used by unsuccessful people who have no other choice. This is a more complex task and is likely to involve changing attitudes at a wider societal level as well as at the local community level.

## UNDERSTANDING THE INFLUENCE OF IDENTITY AND SYMBOLIC MEANINGS OF GOODS IN BEHAVIOURAL CHANGE INTERVENTIONS

Having identified that self and group identity can influence behaviour and consumption, what are some of the approaches that might be explored when designing interventions to shift behaviour?

### Assessing how identity is associated with a specific behaviour

Some behaviours may be more closely associated with a person's or group's identity than others, for example, in-home heating may be less of a defining feature of a person or group than being a smoker or being a vegetarian. Therefore



interventions to encourage energy-saving options related to in-home heating (such as insulation) are less likely to need to consider the role of identity. Assessing the degree to which identity influences a certain behaviour (and at the same time assessing the other contributing factors, e.g. attitudes, skills) would be a preliminary first step in intervention design.

### Renegotiating the symbolic meaning associated with certain behaviours

If behaviours are strongly associated with a specific social group, other people, who do not want to identify with that group, may be resistant to taking on that behaviour – for example, eating vegetarian food may be perceived by some as something that 'hippies' do; catching a bus is something kids and losers do.

This raises the issue that if we want to shift people from buying certain goods or living certain lifestyles we may need to change the symbolic meanings that New Zealand society associates with those goods and lifestyles. Being vegetarian would need to be reframed as being mainstream and healthy if the goal was to increase the number of people who were vegetarian. Equally, catching the bus needs to be reframed as something that smart and successful people do if the aim is to reduce single-occupancy car travel.

This would appear a daunting task, but there are examples of programmes and campaigns that have successfully achieved this end. The anti-fur campaigns used shock advertising to shift public attitudes towards women who wear fur – renegotiating fur garments from being luxurious items worn by beautiful

women, to dead wild animals worn (as literally described by many of the ads) by dumb animals and spoilt bitches.

In New Zealand, a combination of public information, school education programmes, support services and regulation have collectively shifted both the identity attached to smoking and smoking behaviour over a 20-year period. This suggests that a combination of individual, social and institutional changes are needed to shift behaviour and consumption patterns at the societal level...and that these changes do not happen overnight. Rather, programmes and policies need to be implemented progressively over a considerable time period.

### Restricting forms of advertising

Research has indicated that advertising and marketing more generally shape people's perceived need to use goods to create and communicate identity.<sup>29</sup> For example, the role of advertising in youth identity was considered in a study commissioned by the National Youth Affairs Research Scheme in Australia. The study examined the links between youth consumption patterns, sustainability, and processes of social change. It singles out the media as requiring special scrutiny on the basis that youth do not recognise the extent to which the media influences their concept of desirable lifestyles and their personal identities.<sup>30</sup>

New Zealand has regulated against the advertising of cigarettes in an attempt to reduce the health and associated economic impacts of smoking. It could explore the extent of public harm caused by advertising other goods to children and youth and choose to limit content and advertisement placement on that basis.



### Education for sustainability

The assumption that environmental experiences will build environmental behaviour is embedded in the New Zealand Environmental Education Strategy<sup>31</sup> and the successful Enviroschools programme.<sup>32</sup> Both of these initiatives are based on the principle that if you get students out *into the environment* and doing something *for the environment*, they will develop positive environmental values and long-term behaviour patterns. In discussion with educators, none have been able to point to any longitudinal research on whether students moving out of the school system retain and act on those experiences.

### Connecting people to their local place and community

'The Big Clean Up', a social marketing programme run by the Auckland Regional Council, attempted to shift household behaviour around water catchment protection. It was based on the assumption that if they connected residents of specific catchments to their neighborhood streams this would increase their sense of personal stewardship of those streams. Post-campaign evaluation showed a significant increase in residents taking walks by their streams and carrying out personal behaviours in the home to reduce stormwater pollution.

However, one challenge in developing a local sense of identity (either of place or of local community) is the high mobility of New Zealanders. Between the last two censuses about 50% of New Zealanders had changed address. Caldwell<sup>33</sup> comments that in cities like Auckland, which are highly urbanised with high levels of migration, many residents feel and act like 'squatters' rather than members committed to their communities. This may indicate that not only will it be hard to connect many New Zealanders to their local



neighbourhood, but that the make-up of community identity is also constantly changing, fragmented and tenuous.

### Business

Businesses have a powerful role in influencing consumption and identity. They shape the symbolic nature of goods through marketing and advertising, and they can provide options through producing more sustainable products and services. Broader roles that business might take beyond this discussion on identity are explored in **Section Two; Sustainable Business** within this book.

## CONCLUSIONS

How we see ourselves as individuals or as part of a social group can have a profound impact on our day-to-day behaviour. Similarly, our daily behaviour (re)asserts who we are as a person. Often, we will not be willing to change our behaviours and consumption choices even when presented with the knowledge, opportunity and incentives to do so, because those choices reinforce our self-identity and affiliate us to our preferred social groups. Information to promote specific pro-environmental behaviours may even be perceived as a 'threat' to the identity of a person or group and as such may actually reinforce current behaviour.

Organisations attempting to shift consumer behaviour will first need to assess whether those behaviours and goods are strongly associated with symbolic meanings that reinforce their target group's self and group identities. If they are, strategies will need to be developed to overcome the barriers that these will create for behaviour change. Research has suggested that tailoring messages to align with certain aspects of people's identity may increase the effectiveness of information campaigns.

However, the symbolic meanings associated with specific consumer behaviours – and, more broadly, with certain lifestyles and consumption patterns – may need to be renegotiated. Because the negotiation of symbolic meanings of goods is a social process, this renegotiation will need to be undertaken through strategies that aim to collectively change the behaviour of individuals, groups and society.

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# Seeking pro-sustainability household behaviour change:

What works?

CHAPTER 16 : HATCHED



Rhys Taylor  
and Will Allen

## Summary

- Just over 30% of the New Zealand population are thought to be pioneers and early adopters of actions that support sustainability.<sup>1</sup> This segment includes people ready to engage with sustainability through courses and public education campaigns, and to lead the way forward.
- Effective courses will actively engage participants. They will use facilitators and group study situations to encourage actions to be trialled and evaluated. Key elements for success were seeing examples, enabling circumstances, engagement in an interesting process and encouragement to continue by having needs met.
- It is important to support participants, to start with small achievable goals such as changing bulbs and appliances, insulating windows, waste minimisation and improving garden practices. Building the confidence to act leads to ongoing changes.

## RESPONDING TO CRISIS

Accelerating resource depletion, habitat degradation and climate change are real issues requiring serious attention at many levels, from international to household. At the local level, awareness from 'thinking globally' about stories raised in the media does not necessarily translate spontaneously into 'acting locally' to reduce the harmful impacts of habitual lifestyle practices and consumer choices. This chapter summarises findings of research into managing effective community education courses.

## CHANGE REQUIRES A LEARNING PROCESS

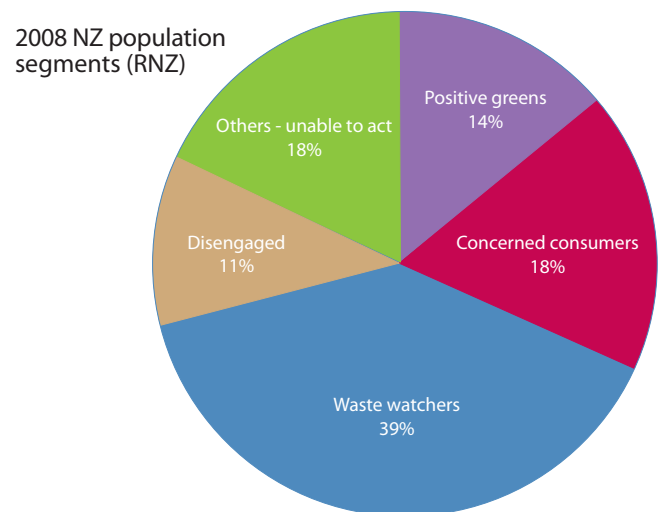
Moving towards more sustainable living implies that we must change at least some of our everyday practices. Change, in turn, is a learning process. Learning in this sense has a social context set by media, workplaces, peer groups, cultural traditions, government policy, etc. It may involve us in breaking past patterns of action – which can be a real struggle in some cases, before new patterns are adopted. The easiest path tends to be continuing an established pattern, which is why we call them 'habits'.

Sometimes there is a conflict between beliefs, expectations and habitual actions, which for some could result in denial (as seen in addictive behaviour:<sup>2</sup> 'I could give up my car driving any time' – Yeah Right). Or it could result in cognitive dissonance (where two experiences conflict, such as: 'Driving is unhealthy. I drove to the shops today for just a few items when I could have taken a walk, but I don't have time to walk, as I'm busy earning, to pay for the car!')

Human behaviour change is not often a cause-and-effect linear process. Education aids reflection from experience and potential re-evaluation of habitual behaviours, using reasoning. Thus if an individual learns, say from reading a book, magazine article or web-page, they may deliberate or reflect, and plan some change. However, the social context that they operate in is also important, as it will either act to inhibit or support the change.<sup>3</sup>

## STRENGTHENING SUSTAINABILITY ACTIONS?

The New Zealand population is increasingly aware of global sustainability issues. A quarter of New Zealanders surveyed by Research New Zealand for the Ministry for the Environment in 2007 indicated they understood environmental sustainability and those claiming such understanding found it an urgent issue for central and local government attention. By the 2008 survey, rephrased questions showed 83% of all respondents saw an urgent need for 'action to protect the environment' by everyone. Most of these would 'like to do more' themselves. Analysis of the sampled population in this 2008 survey,<sup>1</sup> using a segmentation developed by Defra in the UK, described the two types most willing to act spontaneously as 'positive greens' (these early adopters are 14% of population and often higher earners) and 'concerned consumers' (18% and a younger average age). So these pioneers and early adopters of pro-environmental sustainability change actions, as those with highest willingness and potential to act, will total not much more than 30% of the population.



*Chart 1: New Zealand population sample, segmented by willingness and potential to take action at home on environmental sustainability: presented clockwise, highest to lowest. (summarised from Research New Zealand 2008<sup>1</sup>).*

A lower willingness to act voluntarily, but still having potential to be able to make some household changes, was shown

by the substantial 'waste-watchers' segment at 39% of the population. The 'disengaged' were about 11% (often in older age groups) and the remaining 18% in other segments had less ability to act due to low incomes, no property ownership or limited confidence.

## LEARNING OPPORTUNITIES

When opportunities are offered for the public to learn about such issues and potential actions to take at home, who responds voluntarily? A long-term case study was undertaken by Landcare Research (Taylor & Allen 2008)<sup>4</sup> of participants in the Sustainable Households Programme (subsequently renamed Sustainable Living), a community education class series held at many locations. This is offered for a small course fee, or sometimes free, at venues such as high schools, environment centres, church and community halls. The classes are backed by local government, with 26 councils currently in membership of the Sustainable Living Education Trust [www.sustainableliving.org.nz](http://www.sustainableliving.org.nz). One of the authors (Rhys Taylor) has long involvement in the Trust's work as a tutor and coordinator, providing insider participant-observer access.

This case study showed that 77% of course participants were women (not unusual for non-qualification evening classes), of varied ages, but only 11% were under 30. Mostly house-owners, they would fall into the 'concerned consumer' and 'waste watcher' segments of the 2008 surveyed New Zealand population – those who were both willing to learn and able

to take some actions. The tutors tended to be professionals from the smaller early-adopter 'positive greens' segment. Experimental promotion of course content to University of Canterbury students in 2008 and 2009<sup>5</sup> showed interest and engagement was prompted among educated young flat-sharers, male and female.

Actions reported following course participation included, most frequently:

- Installation of thermal insulation and curtains
- Garden changes to grow more food, less lawn
- More effective composting, plus EM bokashi and worm farms
- Changes of appliances, light bulbs and vehicle for energy efficiency
- Avoidance of certain packaging and recycling a larger proportion of used materials
- Reduced water use in garden and bathroom
- Reduced exposure to potentially toxic chemicals
- Increased walking, less short-trip car use

The published paper<sup>4</sup> carries much more detail on this case study, which showed that course participation prompted new actions in the short term, and strengthened confidence to develop longer term actions and maintain actions already commenced.

Interest in environmental issues attracted course participants. Potential money-saving and health benefits were a secondary

*Sustainable Living course participants in Christchurch NZ*



incentive to take part and both featured in end-of-course evaluations as tangible impacts.

Because participants' scientific or systems knowledge base was often limited at course outset, previous actions being taken by participants included contradictions and some rebound effects (where environmental damage is displaced rather than reduced). Examples included: cycle commuters who proudly cut carbon emissions compared to their previous driving, but then used the money savings to take an overseas holiday; and those who switched from open fireplaces to heat pumps in part for winter clean air benefits, but then ran these heat pumps for summer air conditioning, requiring coal burning at power stations when drought restricts the country's hydro-power capacity.

After the Sustainable Living courses, more rational and connected decision-making were exhibited, shown by insulation installation, changes of inefficient appliances and vehicles, and conversion of lawns into water-efficient and productive vegetable gardens. From exit surveys, both their confidence and competence to act had increased.

In the case study, Sustainable Living class groups were shown to have significant impact, both for role modelling by tutors and a minority of class members (positive greens) and for the opportunity to explore, discuss and try out new approaches in a supportive setting. Participants rated the group influence about equal with the impact of tutor and the reference materials. They reported a sense of their own competence and adequacy being increased and that the course removed a sense of helplessness or of guilt in the face of wicked problems, making a difference ('empowerment'). These key phrases highlight similar issues to the four concepts being used by organisations in the UK<sup>6</sup> to characterise successful community education for sustainability approaches.

- **Exemplify** = *predispose* people to change (show a new 'norm' emerging via role models of tutor plus early adopters within social group; media coverage)
- **Enable** = *understand perceptions* and barriers, info and design to address these (excellent information,

independent of commercial bias, plus tackling financial or institutional barriers to new behaviours and by doing so 'editing' available consumer choices)

- **Engage** = finding *social triggers* to change, using group settings to learn in context, keeping it practical (fashionable, relevant, money-saving, healthy)
- **Encourage** = to *satisfy needs*, and reward people for doing the right thing (celebrations, participant contracts/pledges, social status, winter warmth, health gains, home produce, fitness from active travel)

Making use of these four concepts, (Taylor and Allen)<sup>4</sup> compare a dozen case study projects across several countries, each apparently aiming to generate householder habit changes towards sustainability. The findings endorse the use of interactive processes and repeated, facilitated (e.g. tutored) social learning events, a combination of community education and social marketing, as demonstrated in Sustainable Living classes.

The most effective approaches were found to be those that engage participants to prompt action practice, to set specific goals, encourage reflection and monitor change. Study groups provide safe places to explore new information; to meet and question role models; to compare experiences, values and aspirations; and to test out practical ideas at home and report back. The exploration process was itself a motivator for continued involvement.

However, the most commonly offered approaches, reviewed across several countries, fail to grasp the importance of this engagement. Instead they provide one-way information, explain action-consequences, and some may offer exemplars/role models/champions. They use websites, emails, leaflets and broadcasting to target attitude-change and imply behaviour change, but cannot monitor unknown impacts. There were few examples where social marketing campaigns moved beyond this focus on media delivery of external messages, although these can do a good job on awareness building and political agenda-setting. The least effective approaches were to induce regret or arouse fear. Guilt fails as an action motivator.

## FROM GROUP TO WIDER COMMUNITY

The comparative study and the case study showed that certain valid changes can be prompted at the household level, where individual choices are practical and affordable within that locus of control. Examples of these are saving energy through the use of energy-efficient appliances and lightbulbs, and improved use of gardens for growing food. However, other changes towards sustainability will require collective action by geographic communities (typically expressed through local government, such as public transport provision in areas which at present have no alternatives to car use; or by

central government, such as improving building codes, and developing international agreements on carbon trading and a 2009 Copenhagen successor to The Kyoto Protocol).

One new aspect of Sustainable Living Education Trust work is a study topic in preparation for 2010 on 'community resilience' that connects household actions with local government emergency preparedness and management concerns, with the transition towns community movement, and with international debate about the looming socio-economic impact of declining cheap oil production.

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Landcare Research  
Manaaki Whenua

# Supporting practice change through transformative communication

CHAPTER 17 : HATCHED

Chrys Horn  
and Will Allen



## Summary

- We have to do more than tell people about a problem if we want to support and foster constructive change.
- Communication needs to be tailored to the different stages of change that people work through. These different stages include becoming aware that a problem exists, needing ideas around different ways of addressing the problem, and then supporting people in trying different approaches in creating solutions.
- Communication programmes need to be responsive to local conditions, and incorporate local knowledge. Their design should acknowledge that the need for different groups of stakeholders to work collectively is usually a prerequisite for successful sustainable development. Links need to be made both horizontally (across different stakeholder sectors) and vertically (between agencies and their stakeholders).
- So communication media need to not only include traditional brochures, publications and websites, but also encompass new forums for dialogue and new social networking technologies.

## A BIGGER CONTEXT FOR COMMUNICATION

Anyone working to encourage sustainable behaviour inevitably spends much of their time communicating, and trying to help others to better understand the need for change. Because of this, the bigger part of communication tends to be designed to increase people's awareness of sustainability issues and the need for changes in practice. This means that our communication budgets are often focused on campaigns that *transmit* the message 'out there' to people through the use of websites, television, newspapers and radio.

However, awareness campaigns by themselves do not necessarily result in behaviour change. To change what they do, people must understand their current behaviour patterns, and think through how to manage and maintain the change process in their individual situations. To help people do this in the light of their own context we need *transformative* forms of communication which help people with developing and using problem-solving skills such as information gathering, idea generation, experimentation and evaluation. This is not to suggest that transmissive forms of communication do not matter. Rather, we suggest that sustainability advocates can benefit from broadening their thinking around communication processes.

To achieve effective transformative communication, we need to understand the change process that people go through and the communication needed to motivate, encourage and support that process. We also need to understand how to build trust and how to use social networks. Most transformative communication is dialogic (in the form of a discussion rather than one-way communication) and is at a relatively small scale – although it also contains elements such as awareness raising campaigns, which can be done transmissively.

This chapter is focused mainly on transformative communication and some ways of thinking about communication in the change process. The following sections

provide a framework for thinking about the purposes of communication in fostering individual and social change around sustainability. We do this by presenting change as a series of stages and discussing the different purposes and appropriate styles of communication that might be used to facilitate change at these different stages.

## THE CHANGE PROCESS

Communication to achieve change depends on the situation in hand, and how complex the required change is. So, for example, getting Christchurch people to recycle when kerbside recycling came in was relatively simple. Most people believed it was a good thing to do and the introduction of kerbside recycling made it easy for them to do it. In this example, much change was achieved with transmissive communication forms such as advertising, newsletters and flyers.

By comparison, minimising rubbish is more complex, requiring changes in many aspects of one's lifestyle. Someone doing this has to alter what they buy and how they buy it and learn new skills such as composting, cooking with new ingredients, or finding ways to shop for items that have less packaging (see Box 1, overleaf).

Behaviour change is rarely a discrete, single event and during the past decade it has come to be understood as a process of identifiable stages through which people pass. Behaviour



## box 1: RUBBISH-FREE YEAR

Check out <http://www.rubbishfreeyear.co.nz/>. This blog tracks the change process for one family who aimed to be rubbish free for 2008. They have documented their learning and reflections as they changed their lifestyle to be rubbish free.

As part of this they discuss their preparations in the lead-up to the year – a process that required them to observe and learn about their situation to build their confidence and knowledge for the rubbish-free year.

They note that the blog, where people were able to follow their progress and comment on their learning (a process that was essentially dialogic), provided them with the motivation to keep going even when the going got tough. Having made a public commitment to the cause, and having built an online peer group who were interested in their progress, they felt that they should live up to it.

Of interest, also, is the work they had to do on their friends and family who were not aiming to be rubbish free. The family could not be rubbish free without their help, so, for example, visitors were asked to think about what they brought into the household as gifts or contributions.

change can be enhanced by taking specific action at these various stages. Understanding this process provides agencies with additional tools to assist a range of individuals.

The Stages of Change model<sup>1</sup> shows that, for most people, a change in behaviour occurs gradually, with an individual moving from being uninterested, unaware or unwilling to make a change (precontemplation), to considering a change (contemplation), and then deciding and preparing to make a change (see Fig. 1, page 169). Genuine, determined action is then taken and, over time, a person attempts to maintain the new behaviour. Relapses (and sometimes reversion) are almost inevitable and become part of the process of working toward lifelong change.

### 1. Precontemplation

At this stage, people are not thinking about change.

Moving people from precontemplation to contemplation can be difficult, particularly in the field of environmental sustainability. Here the benefits from a change tend to accrue to the environment and wider community rather than to the individual. In comparison, something like quitting smoking has clear personal benefits for the quitter.

Communication aimed at people in the precontemplation phase needs to build their awareness and persuade them to engage further. People need to be made aware of an issue, and believe it is an issue, before they will take measures to deal with it. This requires the use of a range of communication forms, from advertising, to public talks, to small-scale activities and events. The scale of this task should not be underestimated as people these days are exposed to a huge amount of advertising and information, which they have become expert at routinely filtering out. Thus it is often good practice to use a range of approaches simultaneously.

### 2. Contemplation

Contemplation occurs when the person becomes aware of an issue and begins to think about change. The classic example of this stage are all those smokers who think they would like to stop, but who haven't really got around to deciding how. Likewise there are people who feel they should walk or cycle more rather than using their cars but who haven't really engaged with the question of how they might do that. Another example is provided by Christchurch people who thought that recycling was a good idea but who did not do it until kerbside recycling was introduced, even though there had been recycling stations in the city for some time prior to that. These people were positively disposed towards changing their behaviour but had not actually engaged any further with it.

This indicates that a positive attitude is not enough. Behaviour depends on how important a person believes the change is, on what she thinks significant others think, and whether she believes she can change given her specific situation<sup>3</sup>.

It is well understood that change is unlikely if a person does not regard it as important. However, it is more difficult to say

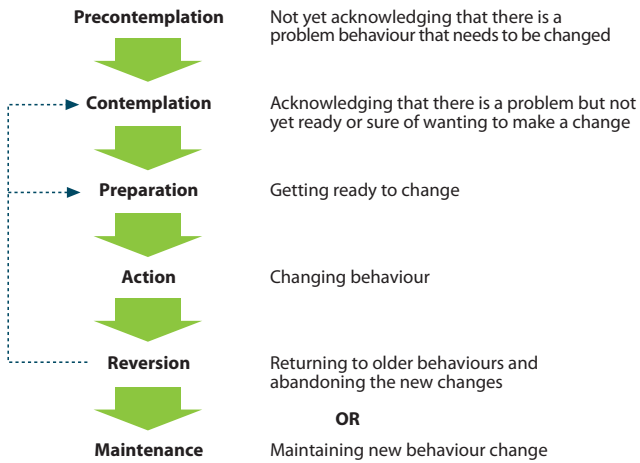


Figure 1 Stages of change that people go through<sup>2</sup>

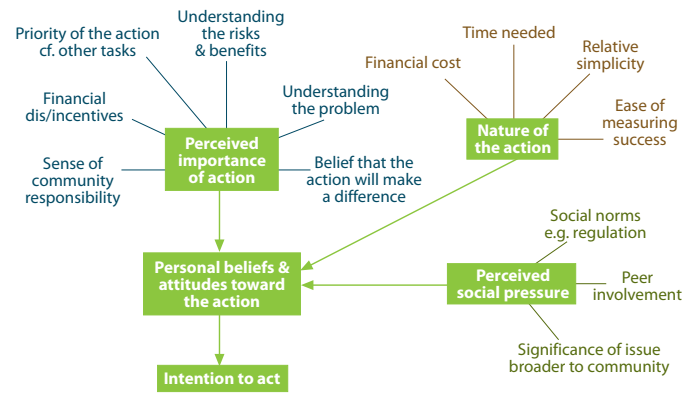


Figure 2 Factors influencing intention to act<sup>4</sup>

what will convince an individual that something is important. Different people have different values and understandings – the same message may really grab one person, but have no effect on another. Similarly, importance may also depend on how significant others view the behaviour. If family and friends bike whenever they can, then adopting that behaviour is likely to seem more important. Likewise if the peer group is not positively disposed towards the change, then it is less likely to be adopted.

If people are to move to the next stage, they must find the necessary motivation to engage more fully with the idea of the change.

### 3. Preparation – working it out

This is the point at which people engage more positively with the idea of behaviour change. At this stage, people must find the necessary encouragement to take action and must explore how they might overcome any barriers to achieve the change (see Fig. 2). In some cases, as in the Christchurch recycling example given above, a change in the environment (such as the introduction of kerbside recycling) can lower the barriers to people adopting the new behaviour.

At this and the following stages it is often useful to meet or know people who are trying to do the same thing. This provides access to ideas and strategies for making the change and, later, for maintaining or returning to it. The rubbish-free-year example indicates that having an interested peer group can really help people adopt and maintain behaviour.

The main goal of this stage is that the person can learn how to make the required change and feel that it is possible for them to do so. A busy or stressed person, for example, may not see how they can make a change because they don't feel they are up to the effort and time it would take (people who wanted to recycle may have felt they didn't have the resources to take their recycling to the recycling station, or may not have known they could do so. Likewise if the change appears unaffordable, unrewarding or time-consuming and is not balanced by any personally rewarding results, change is unlikely.

Ajzen's<sup>3</sup> framework assumes that the individual in question already knows what changes she will have to make and how to make them. However, in most cases, neither of these is a safe assumption. Something as simple as using public transport, for example, may seem straightforward at first, but doing it requires a person to incorporate the new behaviour into their already full life. They must learn about bus timetables, accommodate any extra time public transport takes, and adjust their own timetables to fit those of the buses. Changing to public transport may also affect workmates and family members who may have to accommodate a person's new arrival and departure times.

Habit can pose a problem for changing behaviour. The problem of habit results largely from the ways in which people get 'locked in' to their behaviours through the expectations and needs of both themselves and significant others. Habits are the things that allow us to live alongside others in a range of settings without it all getting too complicated. So, changing

a habit requires change from other people too – something they may resist, like the example of the visitors to the rubbish-free family previously given. Again it often requires good communication, based on two-way dialogue, both to discuss with significant others how the problems that arise might be managed and to help people understand their habits deeply enough to want to change them.

In the area of health, for example, Weight Watchers® provides material to help people observe when, why and what they eat over a period, followed by small forums to discuss these observations and to develop ideas for how to change eating behaviour and to enlist family members in these changes. The Sustainable Households programme, run as night classes around New Zealand, offers a similar process of observation and small-group discussion for people interested in becoming more sustainable in their everyday lives.

It is because of these 'lock in' patterns that it is much easier for people to change at a time when there are other changes going on in their lives. People starting a new job or moving house, for example, may find it easier to accommodate new ways of travelling, interacting with their neighbours or managing their waste as they settle into a set of new habits. Tailored communication packages that pick up on these changes can work effectively. For example, Project Lyttelton (<http://www.lyttelton.net.nz/>) does this by welcoming new people into the area with an information pack that contains (among other things) the local bus timetables and a walking map.

#### 4. Action

At this stage, people take the action they had planned and need to find ways to maintain their motivation. Feedback at the individual level is important and can be a major issue for people working on large-scale environmental problems where there is often a significant time lag between taking action and seeing the desired result. Residents and farmers around Lake Taupo, for example, who are taking action now to limit the nutrients entering the lake, are unlikely to see the lake condition improve for many years. In order to maintain motivation and monitor collective progress, indicators that provide short- and long-term feedback are important, especially if the results can be

attributed to individuals. Thus for the Lake Taupo example, progress might be measured in terms of the number of people in the area who are involved in lake water protection or it might be specific to the individual, e.g. keeping track of fertiliser application or over the longer term in reducing nutrient runoff from small creeks. These will provide more immediate feedback than measuring nutrients in the lake and will therefore help encourage people to maintain their efforts.

## box 2: THE CLEAN HEAT PROJECT IN CHRISTCHURCH

For many years the Christchurch area has suffered from winter air pollution, 80% of which comes from wood and coal. Added to this are national requirements for air quality that Canterbury must meet by 2013. After considerable consultation and political debate, the regional council in Canterbury has brought in regulations aimed at limiting the number of wood burners and sealing up open fires in the areas affected. The Clean Heat Project therefore sits as one of a number of regulatory and public information initiatives that have been in place since the early 2000s.

The Clean Heat Project <http://www.cleanheat.org.nz/christchurch.html#> offers financial assistance to homeowners to encourage them to switch to cleaner forms of heating. Their service includes a home assessment that looks at insulation and heating needs. The assessor then works with the homeowner to decide on the best option and the project employs contractors to install the new heating system and insulation required.

In doing this the project takes a very personal communication approach and provides individually tailored information and assistance in the installation process so that the barriers faced by homeowners are minimised.



## 5. Reversion

Most efforts at behaviour change will involve people reverting – lapsing back into old habits. In fact reversion can be usefully seen as part of the learning process that goes on when one takes action. Reversion happens when barriers emerge from the situation they are in. Thus, someone who sets out to do more networking may find they have trouble doing it when they are under pressure to perform other tasks, or the person endeavouring to use a bicycle rather than a car will encounter difficulties such as the short cold days of winter, wet weather or the need to carry more than a bike can easily handle. While there may be ways around each potential problem, it is not until the problems are encountered that the person can work out what to do.

If a person can maintain her motivation and has the capacity to reflect on the problems that arise, then the reversion may only be temporary. A workable communication process that provides feedback and reinforcement can be as simple as having friends taking similar action, sharing information, and providing feedback. Health initiatives such as the Quit [smoking] Group sometimes use workbook-style exercises that help people observe their barriers along with groups or buddies.

There are also numerous examples of sustainability communication processes that use similar approaches. Farmer groups are used to help farmers learn how to manage possum numbers, people can swap stories in written form through the Internet and blogging, as mentioned above (Box 1).

Involving people in creating their own communication programme in this way helps them learn by observation and by swapping stories. Being part of a group can also help maintain commitment to a change process.

In general, communication that supports people taking action has to be focused on the individual in question. Mostly this will be small in scale and tailored to learning how to effect change in the situations in which individuals find themselves. Without this, reversion may become permanent.

## 6. Maintenance

In this final phase people now consistently behave in the new way and can see their way to reaping the rewards of their efforts. In the dynamic world of sustainability, the idea of attaining a settled state where no further change is necessary seems unlikely. Climate change or the effects of peak oil are likely to require extensive and ongoing adaptation processes that require us to do things very differently. Perhaps the greatest change in behaviour required from us is learning how to learn and change effectively in a complex world.

## ROLE OF INSTITUTIONAL CHANGE

Change is most successful where institutions support the change and relevant infrastructure is in place. Hence it is not surprising that the examples such as kerbside recycling or those in Box 1 and Box 2 have involved institutional change alongside, or preceding, changes in individual behaviour. Thus, city councils had to set up new systems to manage kerbside recycling, and in the case of the Clean Heat project the relevant regional councils had to develop, consult on and bring in new regulations. These kinds of changes lower the barriers to individual behaviour change.

There is some merit in working with the people most willing to change even if there is also good reason to be working to

### box 3: CAR-FREE LIFE

Check out <http://www.stuff.co.nz/national/blogs/eco-centric/2299733/Car-free-life>. This article outlines how one couple has managed to live without owning a car in Christchurch, New Zealand. The story shows how change can more easily happen when other aspects of life are changing – so this couple sold their car to go overseas and found that they did not need to buy one again when they returned. The article also highlights the ways that they manage without the car, the forms of transport they use and the many benefits they have experienced through being without a car. The discussion after it provides some interesting indications that they are now firmly entrenched in not having a car and prefer life without one.

change the opinions of those who are not converted. There are two reasons for this. First, working with willing people enables those fostering change to learn what barriers are likely to emerge during the change process. This enables a programme to include activities that help people move through those barriers. Second, working with early adopters can build a critical mass of people who can then provide models for others to follow.

## BUILDING AND USING SOCIAL NETWORKS

To scale up the kinds of communication needed to foster widespread social change, it is important to become effective at working with and through social networks. A key requirement for the development of constructive dialogues is the formation of networking paths that are both horizontal (e.g. across agencies and across communities) and vertical (e.g. agencies to communities to individuals)<sup>5</sup> Nothing can easily replace small-scale, face-to-face communication when understanding, creativity and complex change are required. Voluntary groups such as Choices (<http://www.choices.net.nz/>) provide an excellent example of how effective networking can be for those working on a voluntary basis and at a local level to effect change at a larger scale. The networks are supported by the website, brochures and email.

The 350 campaign (<http://www.350.org/mission>) also utilised the networking power of the Internet across networks to launch an international day of action on 24 October 2009. It did this by encouraging people to run their own events to highlight the need for governments to sign the next treaty around climate change. However, while the Internet provided the linkages between the many events and information about the campaign, much face-to-face work happened at local level to organise and advertise the events.

The Internet is also providing green organisations with opportunities to link up, foster and provide support for change through the phenomenon of blogging and the use of social networking sites such as Twitter and Facebook. So, for example, Green political parties worldwide have an international group site 'Greendrinks' on Facebook that is linked to locally based



*A 350 event on Mt Eden| Maungawhau was one of over 5200 community led events around the world, where people gathered to call for strong action and bold leadership on the climate crisis on October 24th 2009.*

'Greendrinks' groups. These groups are used for posting information and events to those who belong to the groups.

It is worthwhile for people conducting environmental behaviour change interventions to explore ways to support such communication networks to spread information and initiate discussion, as reflected in the examples above.

## CONCLUSIONS

Communication for sustainability has to take a wide variety of forms and fill a range of different purposes. It will work best where the different forms and programmes are systematically linked. Any initiative will require careful thinking about its purpose and the appropriate means to fill that purpose. It is unlikely that significant change will occur without considerable dialogue. Advertising can raise awareness, but needs to be combined with more active forms of communication to provide a more well-rounded communication programme that supports co-ordinated and constructive change across a range of stakeholder groups.

Social change does not happen quickly. People in the developed world, at least, are bombarded with information and are very often constrained in the time and energy they have to give to the change we might want them to make. There are myriad good causes out there, and for many, simply managing job and family commitments is all they can do. People who are already stressed need support rather than browbeating. As change agents our job is to find ways to provide that support.



At any one time, when trying to build widespread public change, people will be in different stages of change. This means that at any one time there has to be a range of communications going on to support the different stages. Simply running an awareness campaign may motivate a few people into action. However, it will usually take more than this. Some of this can

happen on the various forms of the Internet but, small-scale transformative communication, often in face-to-face situations, is required for long-term change. This is particularly so where the change we are talking about is relatively complex and will have to be adapted to suit the varying situations of each of the individuals concerned.

## WANT TO FIND OUT MORE?

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For the Author's contact details see page ii

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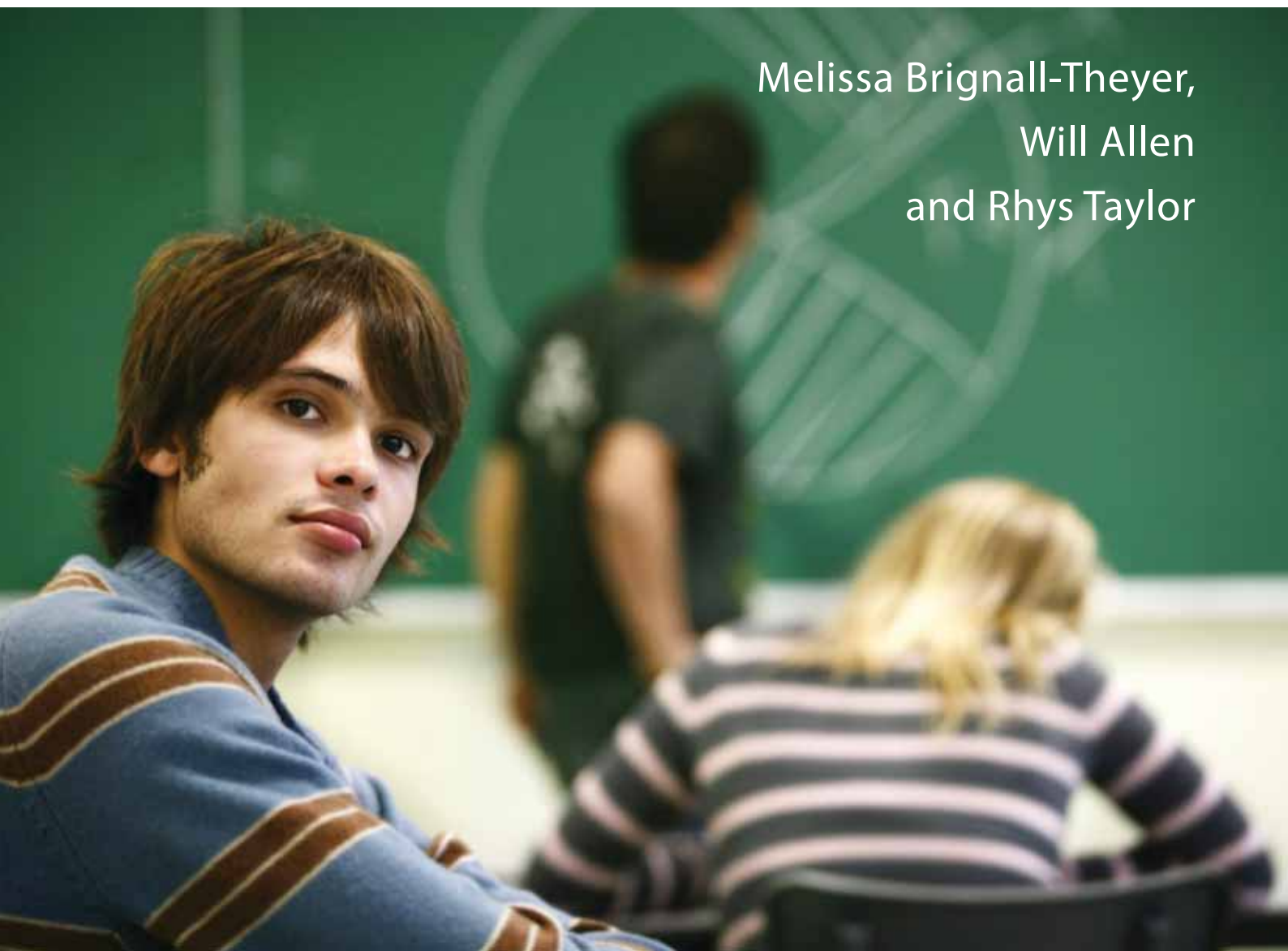
Landcare Research  
Manaaki Whenua

# Education for sustainability in secondary schools

An education challenge for New Zealand

CHAPTER 18 : HATCHED

Melissa Brignall-Theyer,  
Will Allen  
and Rhys Taylor



## Summary

- In schools, Education for Sustainability (EfS) develops survival skills for future generations by equipping young people with the skills, knowledge and systems-understanding to develop ways and norms that support sustainable living patterns.
- In general EfS is still ad hoc and driven by individual champions in New Zealand secondary schools rather than via a systematic commitment. To remove the ad hoc nature of sustainability initiatives, secondary schools need better whole-school strategies that are implemented in a participative and holistic manner, with a strong back-up available from government and non-government organisations.
- To achieve a more integrated approach that supports EfS, related organisational experiences suggest the need to develop an underpinning school philosophy and understanding of sustainability, to ensure a learning-by-doing approach is taken to support incremental change, and that attention is paid to the use of inclusive and collaborative social processes.
- The dominant focus on timetables and assessment in most secondary schools needs to change towards a focus on student-oriented learning, so that critical thinking can be learned in a holistic rather than piecemeal way.
- The learning experiences related to sustainability that students gain from school entry (e.g. kindergarten) to school leaving age (end of secondary) need to be strategically linked and continuous, so that their learning is reinforced throughout their education, minimising conflicting messages. It is accepted that wider society and commerce generates many of these conflicts, but schools need not make it worse.
- One of the intentions of the New Zealand Curriculum (Vision – p. 8) is to engage with the process of learning to create confident, connected, actively involved lifelong learners. This intention is perfectly aligned with EfS principles and therefore needs to be understood and highlighted.
- EfS is as much about the process of learning as it is about content. Therefore reorienting teacher training is, as UNESCO puts it, 'the priority of priorities' .!

*Is our secondary education system, as it is now, providing our students with a solid foundation, so that as adults they are prepared for a complex decision making environment?*

## ISSUE

The 21st century will be dominated by complexity as we enter a globalised and knowledge-based era. States and corporations have competing, often conflicting demands for natural resources such as fresh water and minerals. Increasingly people are asked to make choices and trade-offs between the environment, societal issues and the economy and these decisions are complex by nature. There is a realisation that we cannot continue with a 'business as usual' approach (such as the 'take, make, waste' linear approach to use of resources) without compromising future generations.

Against this backdrop, we need to remember that tomorrow's solutions will likely be found through technical and social innovation led and supported by the children who are in our classrooms today. Individuals' world-views are often set and hard to change by the time they reach adulthood. Schools thus have a crucial and urgent part to play in adapting society, by equipping young people with the skills, knowledge and systems-understanding for them to develop ways and norms that support sustainable living patterns.

The importance of Education for Sustainability (Efs) is being promoted as the preferred educational approach to dealing with complex issues that surround sustainability. In 2009 we are in the middle of the United Nations Decade of Education for Sustainable Development (DESD) 2005–2014.<sup>2</sup> The basic vision underpinning the DESD is a world where everyone has the chance to benefit from education and learn the values, behaviour and lifestyles required for a sustainable future and positive societal transformation. Now is the time for schools, communities and Government to act together. The research findings below may contribute to an overdue policy discussion.

## BACKGROUND

Efs (also known as Education for Sustainable Development) emerged in the late 1980s in response to concern about the environmental impacts of economic development and

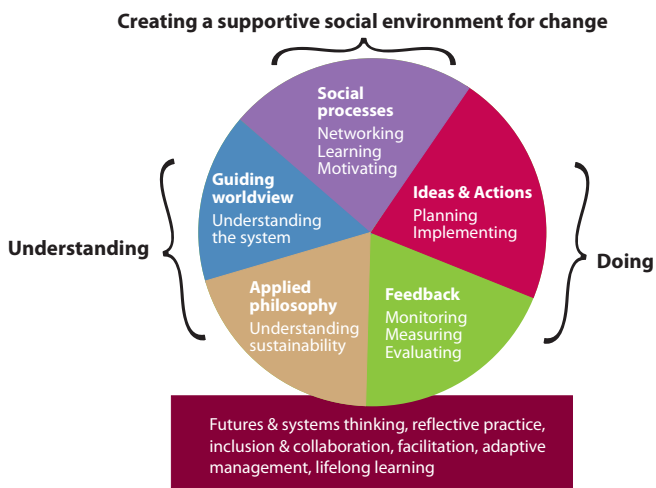
population growth in a finite world. It became clear that an educational approach to these problems would need to include an understanding of the connections between, and interdependence of, social, financial, cultural and environmental systems. At its most sophisticated, this approach aims to enable transformative change that moves society towards sustainable development. To do this people need to be empowered to make decisions based in particular on the understanding that all things are connected in systems. Efs is as much about the process of learning as it is about the information content that has been learned.

Sterling (2001)<sup>3</sup> summarises this:

*"...a change of educational culture which both develops and embodies the theory and practice of sustainability in a way which is critically aware. This would be a transformative paradigm that values, sustains and realizes human potential in relation to the need to attain and sustain social, economic and ecological wellbeing, recognizing that they are deeply interdependent."*

However, a recent study<sup>4</sup> undertaken in 2007 by the authors revealed that in general Efs is still ad hoc and driven by individual champions in New Zealand secondary schools. The main barriers that participants of this study reported were: lack of support from all parts of the system; lack of funding, time, and resources; and the negative perception of Efs by many students. However, the changes to the National Curriculum, the new Efs achievement standards, enviroschools' growth into the secondary sector and continuation of the national coordinators for Efs were expected to help combat some of these barriers over the next few years. These findings are in line with several similar studies in recent years.

The results of studies looking at sustainability in education, including this one, paint a common picture where most schools focus on one-off ideas and actions such as curriculum content changes or recycling as a first step. However, it seems that



*Figure 1 The circle shows the five key 'activities' required for supporting education for sustainability. These are underpinned by a number of important elements shown in the supporting box.*

many of these initiatives are driven by one or two passionate individuals – be they teachers, students, parents or school staff. Most case studies writing up these initiatives point to the barriers that face the spread and uptake of these ideas. There are few cases where we can see how individual initiatives ramp up into a whole-school, integrated approach.

However, the literature<sup>5,6</sup> on how organisations become more oriented towards sustainability suggests that there are guides to how a whole-school, integrated approach can be fostered. These organisational experiences suggest the need to see change as being made up of a number of interlinked activities and elements within an integrated framework. These activities include the need (1) to develop an underpinning school philosophy and understanding of sustainability, (2) to ensure that a learning-by-doing approach is taken to support incremental change that supports actions and subsequent monitoring and evaluation, and (3) that attention is paid to the use of inclusive and collaborative social processes. In turn, these activities need to be supported by a number of key elements, including: futures and systems thinking, reflective practice, inclusion and collaboration, facilitation, action and lifelong learning. The framework in Fig. 1 illustrates that these need to be implemented in a holistic manner, as any change in one alone will not create a 'sustainable secondary school'.

Each of the three main 'activity' headings in the framework are expanded on below under the headings: Understanding;

Doing; and Creating a supportive environment for change.

The text under these headings summarizes research findings<sup>7</sup> from interviewing people associated with EfS throughout the secondary school system. The associated tables highlight barriers to organisational change, possible solutions and potential drivers of solutions.

## UNDERSTANDING THE SYSTEM – A GUIDING WORLD VIEW

A systems view requires us to see schools as part of a wider network of players influenced by the social, financial and environmental systems in which they exist. For schools the point of this is to be able to apply this knowledge of the system institutionally to thinking about their everyday operation and activities in and beyond classrooms. Inherent in a systems view are the notions of continuity and connectedness – ideas that are critical to lifelong learning.

### System change in progress

The secondary school system in New Zealand has gone through huge curriculum and assessment changes in the last 15–20 years. It has moved from providing traditional separate subjects with an end-of-year exam for each, to providing many subjects and a wider variety of assessment methods, including internal assessment and use of Unit and Achievement standards (National Certificate of Educational Achievement (NCEA)). The curriculum changes provide many potential opportunities for schools to use EfS elements. However, most schools that we

*"We have a long way to go in New Zealand. The secondary system is probably in a bit of a crisis at the moment because we have had so many ad hoc changes, when what we really need is a change in the way we educate teachers."*

*(Teacher)*

approached have reacted by retaining parts of the old system with the new and have continued to teach the same separated subject content in much the same way. Therefore, attempts at

incorporating EfS values and approaches have been mainly ad hoc with a few notable more systematic exceptions, such as Enviroschools<sup>8</sup> and projects in special-character schools.

### Lifelong learning

Lifelong learning is about providing repeated opportunities for and better continuity of learning throughout life, so that learning experiences are connected and reinforced, reducing the ad hoc nature of learning experiences. In schools this means better integration between primary, intermediate and

secondary schools, so that the learnings developed in the earlier stages of schooling are not undermined or lost when students enter the secondary system, and similarly onward to tertiary. For EfS this means having a strategic approach, where all levels work closely together.

The role of wider society beyond the school gates is inevitably part of lifelong learning. Students are influenced by many sources, and New Zealand needs to be a lot more strategic in recognising the information and influences that work against

## box 1: THE MAIN 'UNDERSTANDING' BARRIERS TO A HOLISTIC ORGANISATIONAL CHANGE APPROACH, POSSIBLE SOLUTIONS AND POTENTIAL DRIVERS

Problems	Possible solutions	Potential drivers
The strongest drivers of secondary education content and process are timetables and assessment. This makes cross-curricular themes and integration in general difficult to implement. So initiatives are taken by individual teachers, with little whole-school strategic planning	Change the focus from timetables and assessment to student-oriented learning so that critical thinking can be learned in a holistic rather than piecemeal way. Whole-school strategic planning needs to be developed and implemented. Use case studies as models to follow.	<ul style="list-style-type: none"> <li>• All school staff, students and community, Boards of Trustees</li> <li>• Enviroschools and other educational foundations</li> <li>• Government policy</li> </ul>
Lack of national policy to drive an EfS-aligned education strategy. Disconnection from DESD	Creation of national policy on EfS that will provide schools with a mandate to utilise EfS (e.g. Finland and England have good examples of national EfS policy)	<ul style="list-style-type: none"> <li>• EfS professional networks</li> <li>• All school staff, students and community, Boards of Trustees</li> <li>• Whole-of-government approach</li> </ul>
Lack of continuity of learning experiences from school entry to school leaving and beyond (e.g. values fostered in primary school are abandoned at secondary level)	Better collaboration and communication between primary, intermediate and secondary schools, and beyond to tertiary	<ul style="list-style-type: none"> <li>• Schools, within their catchments</li> <li>• Supportive national policy that includes lifelong learning</li> </ul>
Students are often exposed to conflicting messages about sustainable behaviour from the wider community (e.g. media advertising promotes overpackaged products, but at school they are encouraged to buy products with less packaging)	Whole-of-government strategy for sustainability to help provide better continuity of messages relevant to sustainable development	<ul style="list-style-type: none"> <li>• Whole of government</li> <li>• Industry (e.g. waste minimisation policy and regulations or standards to influence whole industry)</li> </ul>
Lack of resources – human and financial. Implementing a programme like Enviroschools requires time and money for school staff and facilitators. There is also a lack of teacher capability to move to a transformative approach	Convince local government of the benefits of funding Enviroschools programme in their region/city. Schools that take on a whole-school approach need to allocate staff with time and resources to implement changes	<ul style="list-style-type: none"> <li>• Enviroschools Foundation</li> <li>• Local government</li> <li>• School support services</li> <li>• Ministry of Education</li> <li>• Boards of Trustees</li> </ul>

sustainability.<sup>9</sup> One of the main barriers to behaviour change is conflicting and poorly presented information in media and commercial messages.

### Applied sustainability framework

All schools have an inherent philosophy, although it may not be clearly articulated beyond marketing statements designed to attract parental placement of students. This philosophy may emphasise embracing (or resisting) change; learning and innovation; culture, religion, or social conscience; or many other possibilities. These are also spelt out to some extent through special-character-school charters, and appear in the 'values' central to the New National Curriculum.<sup>10</sup>

An applied philosophy is important to help bring sustainability principles and values into the everyday practice of a school. Examples of such philosophies or frameworks that support sustainable development in business and local government are triple- or quadruple-bottom-line reporting, and The Natural Step Framework for Sustainability.<sup>11</sup>

The philosophy selected influences both the organisation's interest in taking up the challenge of being more sustainable and the fit that various change programmes may have with

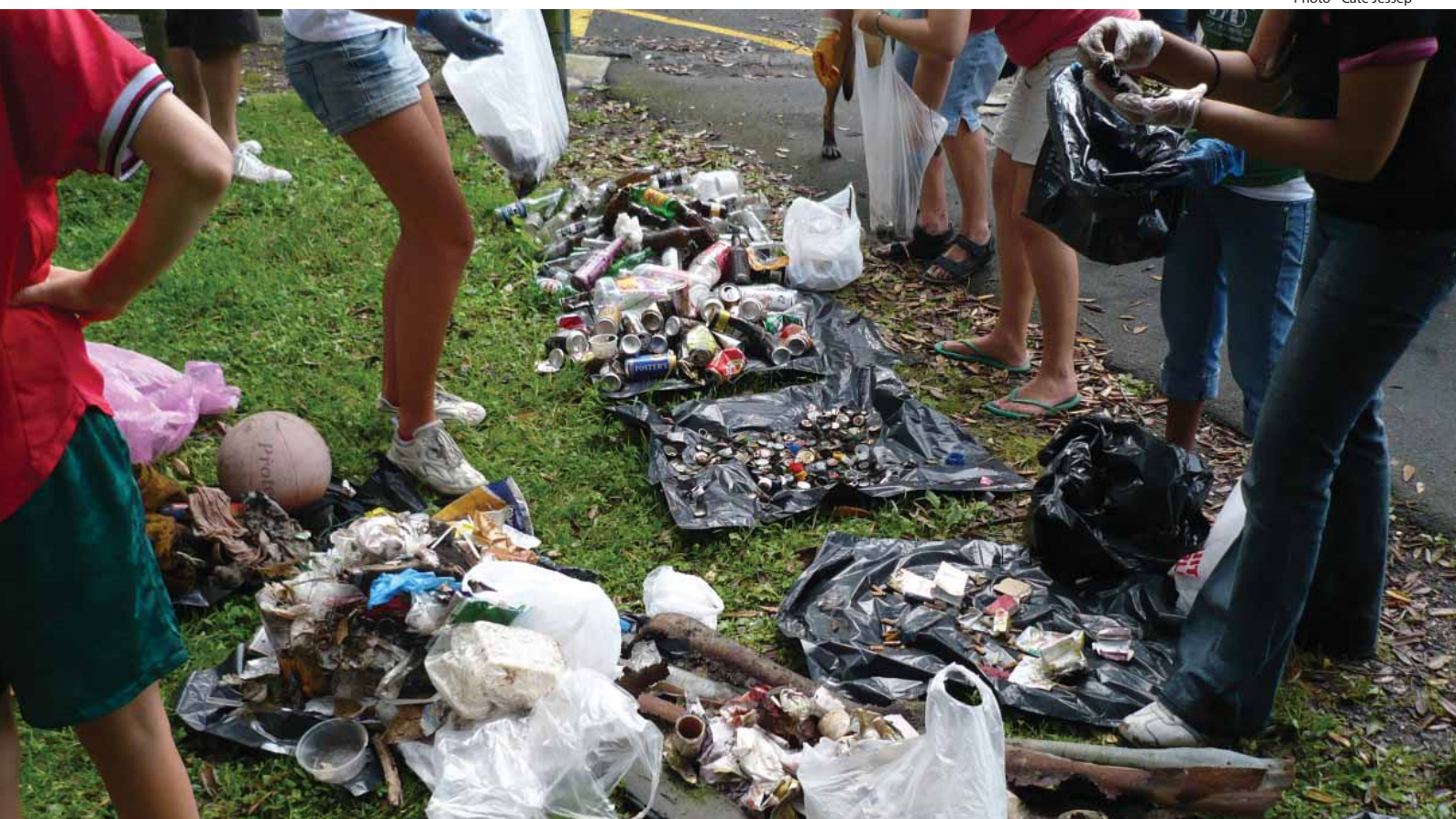
the organisation or school. Efs-aligned philosophies require integration and collaboration throughout the school, from curriculum to administration, governance and operation. This is often referred to as a whole-school approach, of which EnviroSchools is the best known model in New Zealand.

Generally the operation and curricula of secondary schools in New Zealand are not well integrated for sustainability objectives, if at all. However, the operation and curriculum need to be linked in a strategic way, so that students' learning around sustainability is reinforced by what they experience throughout the whole school. Some schools have a sustainability policy that includes both operation and curricular areas, and others use triple-bottom-line reporting at the Board of Trustees level. But it is still a struggle, in practice, to have good integration.

The EnviroSchools programme is a move in the right direction towards an integrated approach, as it offers a step-by-step, ground-up approach, initially designed for the primary school system. However, according to our interviewees, this programme's success in primary schools is much more difficult to replicate in secondary schools, due to the secondary system's focus on single subjects and assessment (see box 1, previous page).

*Lynfield College beach clean up.*

Photo - Cate Jessep





## box 2: BARRIERS TO 'DOING' AT A SCHOOL LEVEL, POSSIBLE SOLUTIONS AND POTENTIAL DRIVERS

Problems	Possible solutions	Potential drivers
Sustainability is seen as an add-on subject, which is difficult to fit into the assessment and timetable focus of secondary schools	Change the focus from timetables and assessment to student-oriented learning so that sustainability is not something to fit in the curriculum, rather it is 'just the way we do things'	<ul style="list-style-type: none"> <li>• Teacher training courses</li> <li>• Principals and Boards of Trustees</li> <li>• Whole-school approach, e.g. EnviroSchools</li> <li>• National policy</li> </ul>
External social drivers, such as consumerism, tend to swamp educational initiatives	Whole-of-government strategy for sustainable development (as in the UK?) seeks to provide better continuity of learning experiences, but has limited impact in a globalised culture	<ul style="list-style-type: none"> <li>• Whole of government</li> <li>• Industry</li> <li>• The media</li> </ul>
External organisations, like councils, are sometimes unhelpful when it comes to supporting school operational initiatives – like collecting recyclables	Build better relations with external organisations. Councils and other organisations need a mandate to help organisations in their area with sustainability initiatives	<ul style="list-style-type: none"> <li>• Local government</li> <li>• Schools</li> <li>• Industry (as sponsor)</li> <li>• Ministry for the Environment (Waste minimisation responsibilities)</li> </ul>
Some students don't value sustainability topic options, because there has previously been little assessment and they are not compulsory. This leads to a lack of numbers, so classes can't run	Whole-school promotion of sustainability courses, backed up by mainstream assessment, alongside other topics. Promote the level 3 Achievement Standards for EFS and profile successful students (new 2009 Level 2 Achievement Standards for EFS are a good example). Case studies and resources for schools to use (e.g. Sustainable Living community education topics: waste, shopping and travel, now adapted for secondary schools – see Box 1)	<ul style="list-style-type: none"> <li>• All school staff</li> <li>• NZQA</li> <li>• School resource producers</li> <li>• EFS advisors</li> <li>• Ministry of Education</li> </ul>
Sustainability is viewed as a separate environmental issue, missing the connections with financial, social, cultural systems	Teacher training that is not just about environmental education, but includes worldviews, and trains to understand and illustrate the connections between systems	<ul style="list-style-type: none"> <li>• Teacher training institutions and universities</li> </ul>
Lack of supportive staff, students and governance structures (e.g. weeding out pest plants has been cited as punishment for low performance in an unrelated school activity, not for its intrinsic value)	Reorient schools' values towards sustainability, so that staff are on board with EFS from the outset	<ul style="list-style-type: none"> <li>• All school staff</li> <li>• Boards of Trustees</li> </ul>
When the initial driver (a keen teacher) leaves – there is no one to continue that work	Implement a strategic approach, e.g. make sustainability initiatives part of employment contracts to ensure continuity	<ul style="list-style-type: none"> <li>• Whole-school policy that clearly leads into strategy and action</li> </ul>
Lack of communication between governance staff and students	Implement a strategic approach to integrate sustainability – this includes communication plans	<ul style="list-style-type: none"> <li>• Inclusive communications plan</li> </ul>
Administration costs of applying for funding are often greater than the funding available for sustainability initiatives	Implement a funding system that requires less administration	<ul style="list-style-type: none"> <li>• Funding bodies</li> <li>• Ministry of Education</li> </ul>
No time in school to do evaluation or reflect on successes and failures of initiatives	Provide school staff with the time, tools, and funding to evaluate progress in an effective manner	<ul style="list-style-type: none"> <li>• Principal</li> <li>• Administration staff</li> <li>• Ministry of Education</li> </ul>
Because initiatives are often ad hoc, they are not measured or monitored and so it is difficult to interpret if an initiative has been a success or a failure	When planning to implement sustainability initiatives, include measurable component. Agree on indicators that support task and monitor process – even in a modest way	<ul style="list-style-type: none"> <li>• School governance</li> <li>• Initiative driver</li> <li>• Evaluators</li> </ul>
ERO reports have not valued sustainability	If ERO reports prioritised sustainability, schools would need to show what they are doing under EFS and this would create a mandate for schools to do more in this area	<ul style="list-style-type: none"> <li>• ERO</li> <li>• Ministry of Education</li> </ul>

## DOING

### Curriculum ideas and operational actions

Actions are an important component as they are visible and provide a sense of achievement. 'Learning by doing' is a key to EfS. It teaches necessary skills for dealing with complex decisions, by providing skills around identifying problems, making decisions about possible solutions, and taking action. It also provides students with confidence to make future decisions and a sense of empowerment. Ideally though, these individual actions will be undertaken within a wider framing of sustainability being acknowledged at the whole-school level. This in turn means that there is more likelihood of the individual actions being held up as exemplars that further activities should seek to emulate.

Taking action at school (e.g. reducing waste, increasing biodiversity through tree planting and curriculum initiatives) is often the starting point. Early activities are based on objectives that are fairly self-evident or tangible and therefore most easily implemented. Because waste reduction and planting trees are associated with sustainability in popular media, some will assume that by doing them sustainability is being 'achieved', but in reality these activities are only a small part of the process of change to a more sustainable system.

### Feedback, monitoring, evaluation

Schools need to learn how to measure and evaluate the effects of their actions on the environment and on the people they most influence (e.g. staff, students, families, suppliers). Generating and interpreting feedback is a fundamental ingredient in improving performance and is also a key process for learning to effect change. It is helpful to point to evidence of success in these actions as a way of maintaining the momentum put in by the most motivated individuals. Celebrating initial successes is invaluable for creating a wider culture of change in the school.

Little reflection is practiced in schools on the successes and failures of their sustainability initiatives. Councils evaluate their council-based environmental education programmes through small surveys and viewing the outputs of student projects.

On a wider scale the Education Review Office's (ERO) periodic school reviews/evaluations are a key driver behind policy that schools value, and could help in any reflection process. These reports have the potential to give EfS a profile and more valued role. However, our interviewees state that ERO reports have reinforced school undervaluing of EfS, by not giving it much exposure (see box 2, previous page). Broad reviews of EfS have been undertaken by National Council for Educational Research, but the more holistic idea of reflection that includes all stakeholders seems to happen very rarely.

## CREATING A SUPPORTIVE SOCIAL ENVIRONMENT

What is learnt through undertaking activities and evaluating the results is usually that helping to change current practices and thinking means helping people (students and staff) to 'learn' and change their behaviour. Thus the basis of change rests on some fundamental understanding of the social processes of learning and change.

Some underpinning social processes for successful change include:

- Building capacity for students and staff within the school to learn about and reflect on the results of their own actions
- Engaging with others involved in similar processes through building and joining in appropriate networks beyond the school
- Developing fair and transparent change processes, with participation that builds the commitment

Building capacity in a learning environment is as much about the process of learning as what is being learned. Therefore, the way teaching is conducted is critical to any change process. Repeatedly our interviewees said that teaching needs to shift its balance further from a past *transmissive* approach (i.e. standing at the front of the class and telling students what to do and know), towards a *transformative* approach with teacher as facilitator or guide of learning, aimed at enabling students to think critically and become motivated, active

learners. When a transformative approach is used, school students report a heightened sense of empowerment and a deeper sense of understanding about their decisions and actions. This type of transformation is what is needed when confronted with the complex problems that the 21st century is already throwing at us.

*"If we are actually going to fulfil the desired outcome of the New Curriculum, education for teachers needs to be about transformative learning, and it is not standing at the front of a class telling them what to write down.."*

*(Teacher)*



Teacher training in New Zealand, as experienced by our interviewees, was not directed particularly towards enabling critical thinking and reflection. It had large components of classroom management and control. There is a need for increased pre-service and in-service teacher training around sustainability, including training in participatory methods and action learning (see box 3, below). There are only a few courses for EfS currently offered within New Zealand teacher training organisations and most represent small parts of related courses.

This problem is not restricted to New Zealand, and is highlighted as a key issue in international forums. In 1990 the United Nations Educational, Scientific and Cultural Organization (UNESCO) identified teacher training towards EfS as 'the priority of priorities'<sup>1</sup>.

EfS networks have strengthened over the last decade with the development of a national EfS coordination team (<http://www.e4s.org.nz/efs/about>), the New Zealand Association for Environmental Education (<http://www.nzaee.org.nz/>), and the Enviroschools Foundation (<http://www.enviroschools.org.nz>).

### box 3: BARRIERS TO CHANGING SOCIAL PROCESSES, POSSIBLE SOLUTIONS AND POTENTIAL DRIVERS

Problems	Possible solutions	Potential drivers
Teacher training does not train all teachers sufficiently in transformative methods	Reorient teacher training using guidelines set out by UNESCO <sup>12</sup> so that all new teachers are exposed to EfS	<ul style="list-style-type: none"> <li>• Ministry of Education</li> <li>• Teacher training institutions and universities</li> </ul>
Lack of funding and time limit subsequent in-service EfS training opportunities for qualified teachers	Allow time and money for training in school timetables and budgets; encourage new providers	<ul style="list-style-type: none"> <li>• Principals</li> <li>• School administration staff</li> </ul>
When decisions are made at the governance level of a school they are often poorly communicated to staff and students, and do not seem transparent	Implement a strategic approach to integrate sustainability – this includes communication plans	<ul style="list-style-type: none"> <li>• Inclusive communications plan</li> </ul>

## CONCLUDING REMARKS

We observe that the 'key messages' stated at the outset in the summary are not new. They have been debated and acknowledged in other fora, but to a large extent remain unresolved by 2009. In the context of seeking New Zealand secondary schools changes to an EfS approach there is

agreement that we need an integrated approach. This framework responds to that call and highlights the importance of implementing several key 'actions' simultaneously, in a connected and collaborative manner. No one is suggesting change will be easy, but without it, today's youth, and tomorrow's decision-makers, will be underequipped to tackle the complex problems that a fast-changing world will throw at them.

## WANT TO FIND OUT MORE?

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For the author's contact details see page ii

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## KEY PUBLICATIONS AND WEBSITES

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## EFS-RELATED NETWORKS

- Resource materials and education forum on EfS at <http://efs.tki.org.nz>
- New Zealand Association for Environmental Education (NZAAEE) <http://www.nzaee.org.nz/> Membership body for practitioners in local government, NGOs and education
- EnviroSchools Foundation <http://www.enviroschools.org.nz/> Active from pre-school to secondary levels across New Zealand, local government backed. Hundreds of schools involved
- Local NGOs such as sustainability trusts and environment centres <http://www.mfe.govt.nz/withyou/funding/centres.html>
- Sustainable Living Education Trust <http://www.sustainableliving.org.nz> Community education for household sustainability, backed by local government, uses secondary schools as hosts for evening classes and has developed some material for in-school application (Level 2 Achievement Standards) <http://www.sustainableliving.org.nz/Case-Studies.aspx>
- Secondary futures – encourages discussion and debate about the role and purpose of secondary education in New Zealand <http://www.secondaryfutures.co.nz/>

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- 2 See DESD background on UNESCO website at [http://portal.unesco.org/education/en/ev.php-URL\\_ID=23279&URL\\_DO=DO\\_TOPIC&URL\\_SECTION=201.html](http://portal.unesco.org/education/en/ev.php-URL_ID=23279&URL_DO=DO_TOPIC&URL_SECTION=201.html) and in New Zealand at <http://phase2.org/undesd.cfm>
- 3 Sterling S (2001) Sustainable Education: re-visioning learning and change, Scumacher Briefing No. 6: Schumacher Society. Green Books, Darlington
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- 7 Brignall-Theyer M, Allen W, Taylor R 2009.<sup>4</sup>
- 8 EnviroSchools takes 'a whole school approach to environmental education. Students develop skills, understanding, knowledge and confidence through planning, designing and creating a sustainable school. Action projects undertaken by enviroschools have both environmental and educational outcomes that benefit the school and the wider community'. <http://www.enviroschools.org.nz/>
- 9 PCE 2004. See Further reading.
- 10 NZ Curriculum information including list of values at: <http://nzcurriculum.tki.org.nz/The-New-Zealand-Curriculum>
- 11 Contact point for the Natural Step in New Zealand and internationally at <http://www.naturalstep.org/en/new-zealand>
- 12 UNESCO 2005. Guidelines and recommendations for reorienting teacher education to address sustainability. <http://unesdoc.unesco.org/images/0014/001433/143370E.pdf>