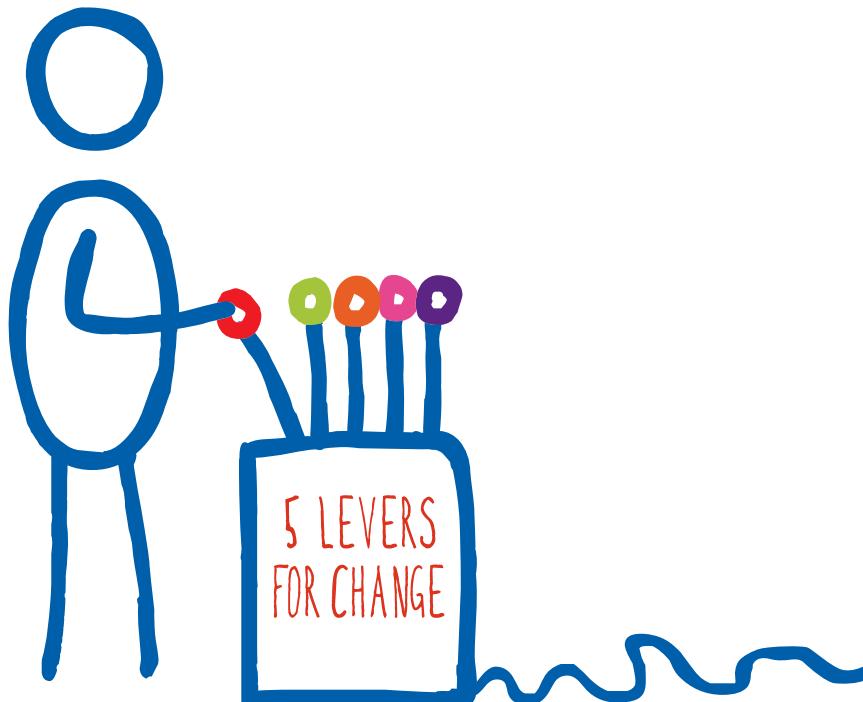




INSPIRING SUSTAINABLE LIVING

Expert insights into consumer behaviour &
Unilever's Five Levers for Change



BEHAVIOUR CHANGE AND SUSTAINABILITY

Creating a sustainable future will require fundamental changes in attitude and behaviour across society. Governments and industry will have to change but so too will individual citizens.

We all know from personal experience of losing weight or getting fit just how difficult change is.

Successful change comes from a real understanding of people, their habits and their motivations. As one of the world's leading consumer goods companies, whose products are used by two billion people every day, Unilever is constantly researching the attitudes and needs of people all around the world.

We have a long history of both sustainability and the use of marketing and market research to promote behaviour change. And for the first time we are publishing our own model for effective behaviour change. We call this approach the Five Levers for Change.

It offers a practical tool, based on what we have learnt over decades of research and observation. We hope others will also use it in tackling the big sustainability challenges we all face.

**"SUCCESSFUL CHANGE
COMES FROM A REAL
UNDERSTANDING OF
PEOPLE, THEIR HABITS
AND THEIR
MOTIVATIONS."**

At Unilever, we've learnt how to encourage people to wash their hands with soap at the right times of the day, to do their laundry at low temperatures and to brush their teeth twice a day. In doing so, we have made measurable improvements to the health, hygiene and quality of life of millions of people.

The Unilever Sustainable Living Plan commits us to ambitious targets over the next decade. We intend to help more than a billion people take action to improve their health; to halve the environmental footprint of our products; and to source 100% of our agricultural raw materials sustainably.

The issues are evolving rapidly. We certainly don't have all the answers. The challenge of sustainable living requires us all to work together and be bold and ambitious in our hopes for the future. That's why we have invited leading experts from around the world to contribute their thoughts on the subject. They provide some fascinating perspectives and pose real challenges.

'THE CHALLENGE
OF SUSTAINABLE LIVING
REQUIRES US ALL
TO WORK TOGETHER
AND BE BOLD AND
AMBITIOUS IN OUR
HOPES FOR THE
FUTURE.'

We believe that business and brands have a powerful role to play in creating sustainable living. Brands are more than simply products; they embody values and aspirations. They can inspire and enable change. Look at what the WWF's Panda has done to promote our understanding of the importance of nature, or what Dove has done to challenge misguided stereotypes of beauty.

It won't be easy to make sustainable living an everyday reality rather than a pipedream. We hope that our practical approach, the Five Levers for Change, and the contributions in this publication, will inspire others to take action.



PAUL POLMAN,
CHIEF EXECUTIVE OFFICER,
UNILEVER



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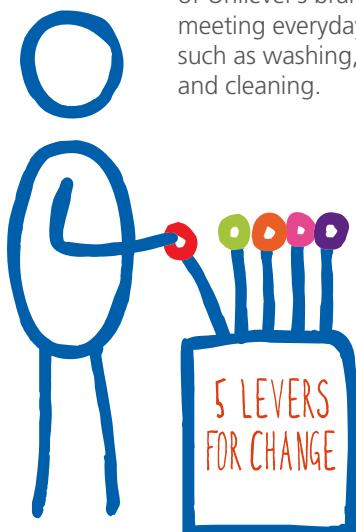


INSPIRING SUSTAINABLE LIVING: UNILEVER'S FIVE LEVERS FOR CHANGE

B V PRADEEP, VICE PRESIDENT, CONSUMER & MARKET INSIGHT, UNILEVER

Over a hundred years ago, Unilever's founders saw business opportunities in serving unmet social needs. William Lever launched Lifebuoy, the world's first health soap, which played an important role in preventing disease and promoting hygiene in Victorian Britain.

Ever since, innovative marketing has been central to promoting the benefits of Unilever's brands in meeting everyday needs such as washing, eating and cleaning.



We've learnt that marketing can be a powerful force for behaviour change. For example, most people have soap at home, but unless they use it properly (i.e. washing hands before meals, not just after), the health benefits of reducing disease will not be realised.

Likewise, for many years we have been trying to encourage people to eat margarine instead of butter for heart health and to brush their teeth twice a day for the most effective protection against tooth decay.

Along the way we've learnt a great deal about people, what motivates them, and how to inform and engage them.

Developing the Five Levers for Change

Several years ago, I was part of a team that had a clear mission: to develop a best practice toolkit for behaviour change. We drew on skills from inside and outside Unilever – psychologists and academics from leading universities;

'FOR MANY YEARS WE HAVE BEEN TRYING TO ENCOURAGE PEOPLE TO EAT MARGARINE INSTEAD OF BUTTER... AND TO BRUSH THEIR TEETH TWICE A DAY.'

hygiene experts; and colleagues from our research laboratories, marketing departments and those out meeting with people who cook, clean and wash with our products across the world.

We developed the Five Levers for Change – a set of principles brought together in a new approach, which, if applied to behaviour change interventions, will increase the likelihood of having a lasting impact.

We soon realised that this approach could be essential in helping to meet the goals of the newly launched Unilever Sustainable Living Plan.

Unilever Sustainable Living Plan

Unilever has an ambitious plan to grow our business in a way that helps improve people's health and well-being, reduces environmental impact and enhances

livelihoods. Inspiring consumers to adopt new sustainable products and behaviours is central to this. After all, two thirds of the greenhouse gas impacts of our products across the lifecycle and about half of our water footprint is associated with consumer use, as distinct from manufacturing or sourcing ingredients.

Our Five Levers for Change helps provide the insights needed, whether it is encouraging consumers to use less hot water when showering or washing their hands before meals and after going to the toilet.

Five Levers for Change

How does it work? The first step is to revisit what we know about our consumers. We systematically identify:

BARRIERS – what are the things that **stop** people from adopting a new behaviour?

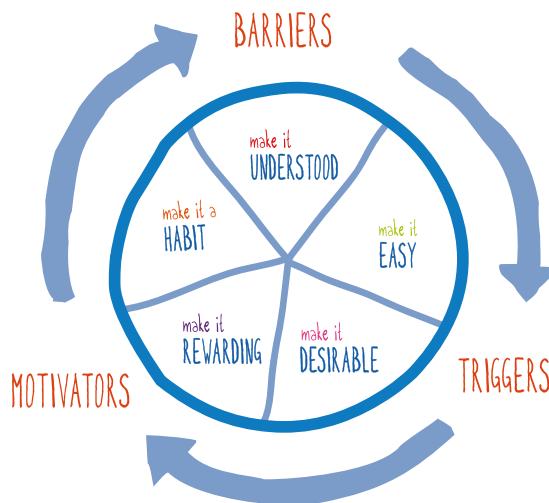
TRIGGERS – how could we get people to **start** a new behaviour?

MOTIVATORS – what are the ways to help them **stick** with the new behaviour?

Next, we take all those insights and consider how to inspire the change that's needed using each of **Unilever's Five Levers for Change**.



UNILEVER'S FIVE LEVERS FOR CHANGE



make it UNDERSTOOD

Do people know about the behaviour?
Do they believe it's relevant to them?
This Lever raises **awareness** and
encourages **acceptance**.

Many people believe that if their hands look clean, then they are clean. Lifebuoy soap's 'glo-germ' demonstration helps children in India, Indonesia, Pakistan and Bangladesh understand that washing hands with water alone isn't good enough to get rid of germs. Ultra-violet light shows the germs left behind on their hands when they wash with water alone. Hands are washed again with soap and shown as germ-free under the same ultra-violet light.

make it EASY

Do people know what to do and feel confident doing it? Can they see it fitting into their lives? This Lever establishes **convenience** and **confidence**.

In many parts of the world, laundry is washed by hand. It is typically in these countries that water is scarce. With Comfort One Rinse fabric conditioner you only need one bucket for rinsing rather than three. When we launched in Vietnam, people needed to see with their own eyes the convenience of washing out detergent residues after just one rinse. TV commercials created high awareness but proved not to be

enough to establish confidence. Live demonstration events and product samples helped to build confidence that the new way of rinsing was enough to remove all residues and showed the convenience in terms of saving time and water.

make it DESIRABLE

Will doing this new behaviour fit with their actual or aspirational self-image? Does it fit with how they relate to others or want to? This Lever is about '**self and society**' because humans are social animals. We tend to emulate the lifestyles and habits of people we respect – like our parents or sometimes a celebrity – and follow norms in society.

Infant mortality is a big issue in some countries, and many lives could be saved through the simple practice of handwashing at key moments when looking after the newborn baby. Lifebuoy communicates to new mothers, tapping into the insight that mums like to feel they are a good mum, and be seen in this way by others.

So in its communication, the brand has linked washing hands with soap with being a good mother, which is a powerful motivator.

make it REWARDING

Do people know when they're doing the behaviour 'right'? Do they get some sort of reward for doing it? This Lever demonstrates the **proof** and **payoff**.

The US's number-one haircare brand, Suave, encourages women to turn off the shower while they lather their hair by answering that all-important question: 'what's in it for me?' The brand campaign showed how families could save up to \$150 a year on utility bills by cutting hot water use, as well as having a positive impact on the environment.

make it a HABIT

Once people have made a change, what can we do to help them keep doing it? This Lever is about **reinforcing** and **reminding**.

Lifebuoy soap's handwashing campaigns run over a minimum of 21 days to encourage repetition of behaviour in relevant settings every day. During each day of the programme, children participate in activities designed to deliver the handwashing message in an engaging and memorable way. Comic books, posters, quizzes and songs all work to remind them about the message of handwashing at key occasions. Compliance is also tallied on a daily sticker chart with the help of mum and teachers, to reinforce the behaviour.

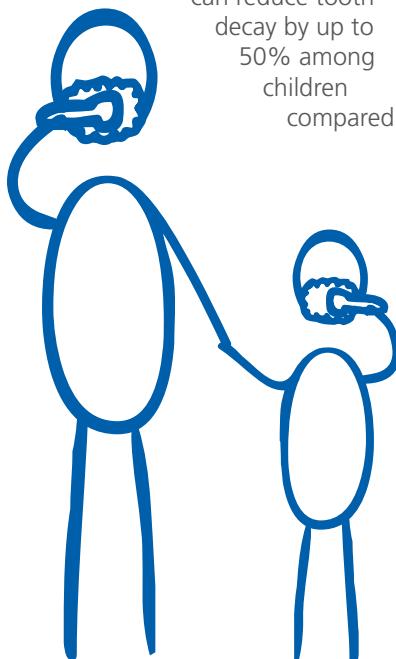


The Five Levers for Change offers a coherent approach to thinking about behaviour change and putting it into practice. It is not intended as a step-by-step process; the Levers don't have to follow one after the other. But what we've learnt is that the most effective programmes apply all the Levers in some way.

Changing oral hygiene habits – an example in practice

More than half the world's population only brush their teeth once a day, rather than twice as dentists recommend. Clinical studies show

that brushing twice a day with a fluoride toothpaste can reduce tooth decay by up to 50% among children compared



**'THE MOST
EFFECTIVE
PROGRAMMES APPLY
ALL THE LEVERS
IN SOME WAY.'**

to brushing once. And yet tooth decay remains one of the most common chronic childhood diseases – the World Health Organisation estimates that 60-90% of school children worldwide have dental cavities.

So we have set a goal in the Unilever Sustainable Living Plan to help 50 million people change their tooth brushing behaviour. We used the Five Levers for Change model to develop our behaviour change campaign.

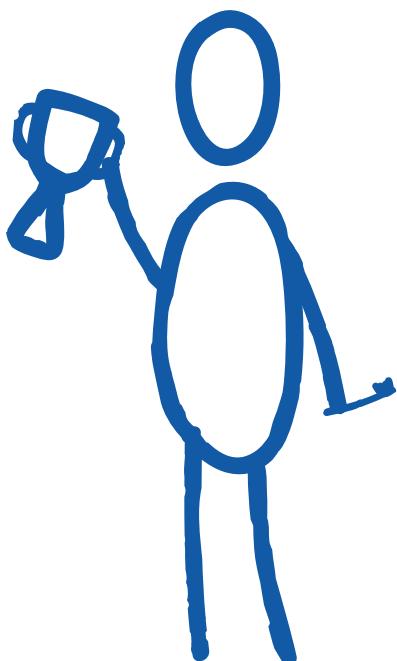
First, we selected our target audience – focusing on children aged 4-8, the age at which children learn to brush by themselves and establish their oral care habits for a lifetime. Our secondary target audience is parents and teachers who play an important role in modelling and reinforcing good brushing behaviour. We found that children's current habit is predominantly to brush their teeth just once a day – in the morning after breakfast.

'THE FIVE LEVERS FOR CHANGE OFFERS A COHERENT APPROACH TO THINKING ABOUT BEHAVIOUR CHANGE AND PUTTING IT INTO PRACTICE.'

Having identified our target and understood their current behaviour, we then conducted in-depth research across a range of markets to find out more about what children and their parents think, do and feel when it comes to oral health. We mined existing information for insights and immersed ourselves in the world of children and their parents: watching children's TV programmes, playing their games, reading magazines and parent blogs and speaking to young children and parents we knew.

Then we undertook some exploratory research to plug gaps in our knowledge. This helped us to identify some key insights:

- 'Barrier' insights which revealed that the lack of understanding about the importance of night brushing is an important block to brushing twice a day
- 'Trigger' insights which highlight how to motivate children and their parents to adopt the habit
- 'Motivator' insights which suggest ways to ensure that the new habit of brushing twice a day is sustained over time and becomes an established part of the bedtime routine.



'OUR METHODOLOGY INCREASES THE LIKELIHOOD OF DEVELOPING A SUCCESSFUL BEHAVIOUR CHANGE PROGRAMME.'

These new insights were brought to life in the 'Pablo and Oliver' programme for our Signal and Pepsodent toothpaste brands, which shows the fun times that a father and son can share when brushing their teeth together at night.

We used all Five Levers for Change in the programme. To 'make it understood' we used powerful messages such as "brushing day and night with a fluoride toothpaste can cut tooth decay up to 50% among children compared to brushing once". To 'make it easy', we offered downloadable games to make brushing teeth at night an easy habit for the family to share. To 'make it rewarding', we offered prizes for continuing with the habit.

However, the real breakthrough came from our efforts to 'make it desirable'. This inspired us to create a strong role for dad in the campaign. We recognised the role fathers can play in passing on good habits to children and how this appeals to a father's desire of seeing himself as a good, involved and fun parent.

Finally, to help 'make it a habit' we explored new ways of creating sustained behaviour change. Along with sticker diaries to encourage children to practise the new habit over several weeks, we reminded parents by sending them mobile alerts to coincide with children's bedtime.

Results are very encouraging with increased brushing frequency in the countries running the programme. This is a great win-win outcome: improving children's oral health and helping us grow our business.

The future

The Five Levers for Change is a simple process that has resulted in some success. But there is no silver bullet for behaviour change.

Our methodology increases the likelihood of developing a successful behaviour change programme, but developing the programme is only half the story. The critical second half involves staying power.

**'WE HOPE OTHERS
WILL JOIN IN TO
CREATE WIDESPREAD
AND LASTING
CHANGE.'**

A behavioural change programme requires sustained and consistent investment. Too often, campaigns announce the need for the new behaviour and stop there. In order to work, change needs to start with awareness but then build upon this to establish and reinforce the behaviour. It lasts beyond a campaign, indeed beyond the time-span of the average marketer's job.

And, most importantly, we are aware that just as people are complex, so too is behaviour change. Our understanding is continually evolving. We are continuing to work with authorities in the field to ensure we're exposed to the latest behavioural change thinking and practice.

We are publishing our approach because we think that there are wider benefits from sharing our work with others. We've learnt a great deal through our health and hygiene campaigns and we know that there is potential for this approach to be applied to the environmental field – helping consumers use less water, emit less greenhouse gases and produce less waste.

The Unilever Sustainable Living Plan sets out our own commitments as a company over the next decade, and we hope others will join in to create widespread and lasting change.

The future rests on companies producing goods and services that society wants, in ways that enhance health and well-being and don't damage the planet for future generations.



CONSUMING PASSIONS: WHY DO WE CONSUME?

VAL CURTIS, LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE

Why are we humans such a greedy lot? There are four reasons why we like to consume. First, we seek to meet basic needs: for calories, micro-nutrients, water, shelter and transport, for example. Second, we consume to stimulate ourselves, to give ourselves pleasure: cheesecake, music, flowers and recreational drugs all fall into this category. We also consume to hoard: owning and collecting things is an ancient instinctual buffer against the shortages our ancestors suffered in the Pleistocene savannah. This instinct to hoard is more often nowadays expressed in shoe, ornament and, in my case, hotel soap collecting. But the fourth, and most economically important, type of consumption serves a signalling function – consumption as display. As Geoffrey Miller eloquently argues in his book *Spent*, we consume to show off. We throw away the old and buy the latest phone because otherwise we'd be seen as old fashioned; we wear what's cool in our social group; we buy beauty products to advertise our fitness and thus attract potential mates (even if we are not actually in need of one).

Two types of consumption

Consumption of goods is on the rise globally, and most of this rise can be put down to two of the four forces. One part of the world still has to meet its basic needs: for food, for washing machines and for toilets. At the same time people in the rich world are spending wildly in an arms race of display consumption: the high-tech kitchen, the four-wheel drive, the airplane trip to the mini-break, the new mobile phone every 18 months, all of which aim to out-do, not just the local Joneses, but the global mega-rich, as seen on TV. It is important to separate these two categories of consumption.

Spending on basic needs will grow inexorably in the emerging markets of the world and it is untenable to suggest that such growth should be stifled or somehow prevented. To take one example; without access to the washing machine, two-thirds of the world's women still laboriously scrub clothes clean by hand in bowls, basins and rivers. As Hans Rosling points out in his classic 'the Magic Washing

'Machine' talk at TED, the non-profit conference organisation, not even the most hardened environmentalist is prepared to wash his jeans by hand. Yet these same environmentalists presume to propose that poor women forgo the liberation from drudgery of the energy-consuming machine. Rosling argues that we should rather direct our concerns at the consumption patterns of the rich world, who use the lion's share of resources – mostly for the purpose of conspicuous display consumption.

If consumerism really is a problem for the future of the planet (and not all would agree, for a contrarian view see *The Rational Optimist* by Matt Ridley), then the question of how to stem this rampant, wasteful, signalling via products is a pressing one.

**'WE CONSUME TO SHOW OFF.
WE THROW AWAY THE OLD AND BUY THE LATEST PHONE BECAUSE OTHERWISE WE'D BE SEEN AS OLD FASHIONED.'**



First we need to see the problem for what it is. The sociologist and economist Thorstein Veblen provided an early explanation in his 1899 critique of consumerism. He argued that conspicuous consumption, via conspicuous waste, is used as a way to signal status. Evolutionary psychology tells us why. The brain of Homo sapiens evolved in a world of scarcity, and as a result we are tuned to always want 'more'. Because this was adaptive, it kept us striving to get the stuff that helped us to get more offspring, in our dim and distant past. But it was also adaptive to admire, to emulate, to cleave to and to want to mate with those who had 'more'. Displaying your success through having so much surplus that it could even be wasted led others to want to ally with you and to accord you social status, and hence higher fitness and more gene copies in the next generation. The desire to signal success and to copy the successful are thus inescapable facts of the human



nature that we have inherited: they are ancient motives, the voices of our ancestors, and we cannot simply reason them away.

Marketing and a spiral of self-destruction

Marketers have, of course, long understood the power of these voices. They know that they can sell shampoo and cars on sex appeal and mobile phones as status props. Adding signalling value to brands works, it shifts more products, however irrational this display behaviour may be in our modern world.

And, of course, the wider the gap between those who have stuff and those who have not, the greater the motivation for those with less to try to catch up. As rich countries get richer, as the rich in emerging markets pull away from their poor, and as the mega-rich get to display their toys via global media, so the innate need to signal that one is not 'a failure' grows. As a result, more and more consumers around the world spend frantically in an effort to signal that they are also worthy of attention, status and mating opportunity. Is this an inevitable and gathering process, doomed to spiral us into self-destruction?

Imprecations to give up our goodies are certainly not going to halt the process. In Christopher

Marlowe's play Dr Faustus, Mephisto argues to Faust that for the good of his own soul he should:

"Pack up your things and get
back to the land
And there begin to
dig and ditch;
Keep to the marrow round,
confine your mind,
And live on fodder of the simplest kind,
A beast among the bees;
and don't forget
To use your own dung on
the crops you set!"

-Marlowe, 1604

No amount of romantic environmental rhetoric will induce us, as a species, to forgo the vast improvements in the conditions of life brought about by industrialisation. And there is no question that our current global market system will allow these benefits to continue to spread. This inevitably means more consumption. So how can we meet the challenge of reining in wasteful, signalling consumption?



Motivations, payoffs and the future

One way to engineer human behaviour is to change what's called the motivational payoff structure. Tax systems could be re-engineered to social ends, one of which could be to switch

to purchase taxes that make a distinction between basic needs and wasteful consumption. This would be deeply controversial; careful research and much citizen debate would be needed to figure out how to draw the line between what was and what was not wasteful.

Another way to change the motivational payoff structure is to imbue the target behaviour with a new motive: can wasteful consumption behaviour be seen as parasitic on society and therefore disgusting? Can it be made ridiculous, embarrassing and shameful? Some moves have been made in this direction by the environmental lobby, suggesting that this may be possible. Research could be conducted to highlight the craziness of our consuming behaviour, the lack of logic in our frantic signalling – signals that few even notice anyway – and the insanity of signalling sexual attractiveness when happily married or post-reproductive. We can expose our mismatched cave-man motives as ridiculous, damaging and disgusting in the context of the modern world.

However, it's not clear how research or campaigns to change public attitudes would be funded. Most resources deployed in influencing human consumption behaviour today work in the opposite direction: global marketing budgets motivate us to spend in an environmentally unsound fashion. Some large companies, of course, have a vested interest in continuing to shift as much product as possible; it is not in

'CONSUMERS AROUND THE WORLD SPEND FRANTICALLY IN AN EFFORT TO SIGNAL THAT THEY ARE ALSO WORTHY OF ATTENTION, STATUS AND MATING OPPORTUNITY.'

their short-term interests to attempt to curb wasteful consumption.

Yet the most enlightened companies, those that are ahead of, or even leaders of, social change, may find that they get a first-mover advantage, a chance to claim the moral high ground, a chance for their brands to become more trusted by consumers because they are associated with improving our planet. They can innovate to produce products that are slim, light, long lasting, use efficient production and packaging, and are easy on the environment: and they can market these as signals of taste and status. They can fund research into wasteful consumption and even campaign against it. Those companies who first claim the moral high ground earn the right to shoot at others below, and can join a growing trend that stigmatises, rather than admires and lauds, wasteful consumption.



THE TRANSFORMATIVE POWER OF INDIVIDUALS

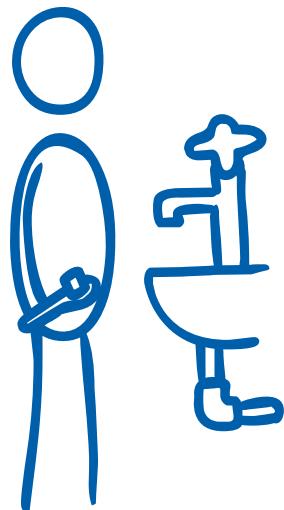
HELIOS MATTAR, PRESIDENT, AKATU INSTITUTE FOR CONSCIOUS CONSUMPTION, BRAZIL

Around 16% of humankind is responsible for 78% of all consumption. At the same time, present levels of consumption demand 50% more renewable natural resources than the Earth is able to supply. This means that the proportion of humanity that at present defines the mainstream pattern of consumption – although that proportion is quite small – is already leading to a situation where Earth cannot continue to provide clean air, potable water, healthy arable land and a complete absorption of residues generated by production and consumption. The environmental services demanded from the planet are simply not there to be supplied.

If the whole of humanity were to consume resources at the same rate as the 16% richest inhabitants of the planet, five Earths would not be sufficient to supply all resources needed. So, clearly, a new pattern of consumption is needed, one that would allow the well-being of the whole of humankind and, at the same time, respect the inherent limits of the natural

resources of the planet on which we all live.

In general, the tendency is to think that, for that to happen, it would be necessary to reduce the well-being provided by the present model of consumption. That is not true. A simple example may help explain why: if only one individual cleans their teeth three times a day using one cup of water instead of leaving the water running



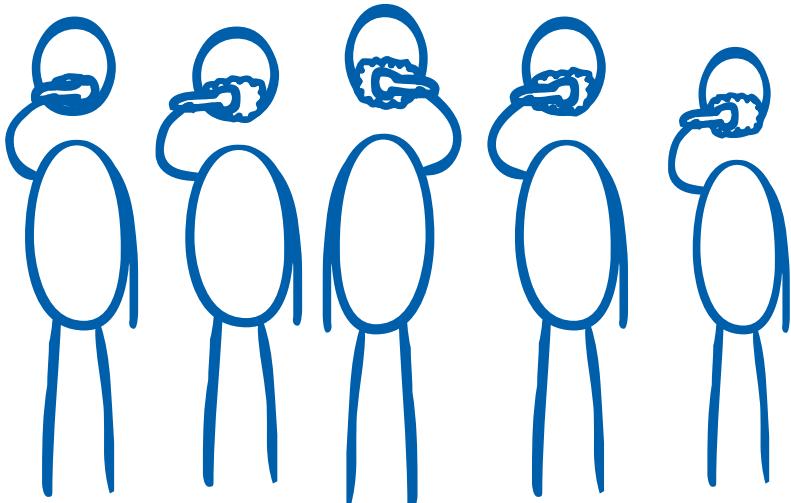
"CONSUMPTION can be USED as a POWERFUL MEANS TO POSITIVELY TRANSFORM THE WORLD."

from the tap for the two minutes that brushing takes, the amount of water saved during the 70 years of their life would be equivalent to three-quarters of the water in an Olympic swimming pool.

The power of acting together

This example considers only one small gesture, that of turning off the tap while cleaning your teeth, and for just one individual. Can you imagine the savings when a family, a community, a nation adopts the same behaviour? Or when one considers other activities where water is consumed, such as taking a shower; washing dishes, the floor, your clothes, the car; when cooking. That clearly shows where Unilever's approach, 'small actions, big difference' comes from. In Brazil, the same slogan was translated into Portuguese as 'each gesture counts', which expresses the same concept.

For that reason, consumption can be used as a powerful means to positively transform the world. For that to be realised, the individual would have to be aware of the impact of every act of



consumption on the environment and society and try to reduce the negative impacts and increase the positive ones. That can be done through a change in the behaviour of the consumer or through a change in the products offered by companies to consumers, so as to have a smaller negative impact on the environment. A good example are the products designed to use less energy, such as Unilever's laundry products.

It is important to remember that no product can be manufactured or used without the extraction of natural resources from the crust of the Earth and the use of water and energy. These items are present in the production or use of products, even when the consumer does not notice them explicitly. As a consequence, consumers can make an enormous everyday contribution to the present and future sustainability of life on our planet by choosing which companies to buy from and giving preference to



those that have adopted a more friendly stance towards the environment and society. They can choose products that were produced, and can be used and disposed of, with the best possible standards from an environmental and social point of view.

The opportunity ahead

It is important to emphasise that we are not referring to future risks but to the opportunities for each and every consumer to contribute today to reduce the present and future risks of unsustainability. However, the problem is of such magnitude that it would be too optimistic to expect a solution to come from any single social agent, be it government, multilateral organisations, corporations or civil society. We need a process that engages the whole of humanity, starting with the actions of each individual. This should be reflected in the enabling conditions provided by national governments, corporations and multilateral organisations so that change is implemented on a scale and at a speed that can contribute, in time, to reversing the present pattern of unsustainability of life on Earth.

But let me repeat: the process starts at the level of the individual, with the understanding that small actions will lead to big changes. In order to show that individuals do have an enormous opportunity to contribute, let me give you two additional examples.

A single British or American citizen throws away, every day, 1.3kg of waste. Over 75 years – the approximate life expectancy of each of those citizens – the total amount disposed of as waste by one individual is 36 tons. If one takes six families with two children each, the amount of waste they throw away during their lives (assuming a life span of 75 years), would require 271,000 towers the size of Big Ben in London to hold it all.

Of course, the more individuals reduce the amount of waste produced, the lower the cost of collecting it, allowing governments to invest in other, more important issues than garbage collection.

And a final example: one American individual consumes, on average, 350g of cattle meat every day. To produce these quantities of meat, 5,300 litres of water are needed.

As a consequence, over 75 years – the lifetime of an average American – an amount equivalent to almost 60 Olympic swimming pools is necessary for the production of meat that an individual will eat. That is a lot of water to feed just one individual.

Of course, the more individuals reduce the amount of beef they eat, or substitute with chicken, the less water will be consumed and more will be available for other uses. Water is a precious resource that large groups of people and regions on the planet lack.

"EACH INDIVIDUAL CAN MULTIPLY THE POSITIVE IMPACT OF HIS OR HER ACTIONS BY THE NUMBER OF PEOPLE THEY MOBILISE TO DO THE SAME."

By telling one's family and friends about these examples, and by mobilising them to choose better products and to use them in a better way, each individual can multiply the positive impact of his or her actions by the number of people they mobilise to do the same. We must start today.



VISIONS AND ACTIONS FOR SUSTAINABLE LIFESTYLES

CHERYL HICKS AND MICHAEL KUHNDT, UNEP/WUPPERTAL INSTITUTE, CSCP, GERMANY

If you had to live your life more sustainably this weekend, what would you do? Answering this question implies that you have a good idea of what sustainability means, that you know what is unsustainable about the way you currently spend your weekend and that you are already interested in seeking options for what you might do differently to achieve sustainability. ‘Having it all’, that is meeting all of our needs and desires with minimal environmental and social impact, will require a deeper understanding of what those needs and desires are, and what is holding us back.

These questions are at the centre of a current research effort, SPREAD Sustainable Lifestyles 2050, which is exploring what it means to live our lives more sustainably, what changes will be required and for whom, what options can be enabled to help us to meet differing individual needs and desires, and what promising sustainable living practices are already starting to be revealed.

What is unsustainable about the way we live?

In the last century, a modern economy has delivered remarkable affluence and increased quality of living standards for hundreds of millions of people worldwide. But the economic growth behind this wealth generation has inflicted dangerous costs on the environment, while billions more aspire to the same high standards of living.

According to the Global Footprint Network, humanity today is simply demanding more resources than the Earth can provide – five planets if you live in the US – and of course, we only have one. This century has begun with a ‘great convergence’ in living standards as poorer countries speedily adopt the technology, know-how and policies that made the West rich. China and India are the biggest and fastest growing of the catch-up countries, but the emerging-market boom has spread to embrace Latin America and Africa too.

**'GLOBALLY,
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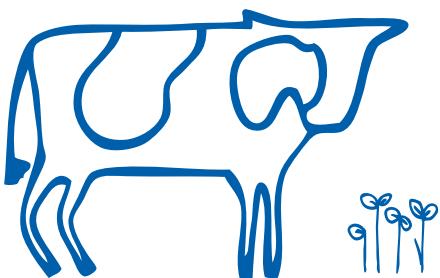
The way we eat and live in our homes, what we buy, consume and waste, and how we move around account for significant impacts. According to the European Environment Agency, our food is among the highest (20–30% of our household consumption impacts). Meat and dairy account for 24% of all of food consumption impacts in Europe. Over-consumption of fish is leading to the depletion of some fish stocks and collapsing fisheries. Increased imports of non-seasonal and exotic food are associated with high levels of food processing and high energy use both for production

and use. The energy used to heat our homes (67% of household energy consumption in the EU) and the water we use, together with our appliances and electronic goods, account for approximately 40% of total energy consumption. Increasing extraction of natural resources and raw materials (such as wood products, metals and diamonds) used to manufacture growing volumes of household products and consumer goods, together with rising levels of household waste, and the impact of the transport of these goods around the globe, can cause consumer goods alone to account for 14% of an average citizen's footprint in the UK. Current lifestyle patterns are also leading to significant health impacts, such as obesity, heart disease and cancer.

Visions of sustainable living from around the world

Universally, people want to improve their lives. But what is right for everyone, everywhere? Recent studies show that our visions of sustainability, our ideas about sustainable living, and the futures we aspire to show nuances of interpretation around the world.

Globally, sustainability is still predominantly seen as a good that involves some sort of trade-off. This entails a risk that people might feel alienated from it, with no real sense of agency – or empowerment – to make change happen.



'WE NEED TO MAKE SUSTAINABLE LIVING OPTIONS EASY.'

For Western households, sustainability tends to mean some variation of 'living with minimal impact on the Earth'. This may include things like minimising the use of non-renewable resources, thinking about purchases in terms of whether they were really needed, how they would be disposed of and recycled. The Latin American view tends to put more importance on aspects of community and social development. The Asian view tends to include nuances of economic sustainability first along with the viability of national economic development. For example, the Switch Asia Network Facility, which promotes sustainable production and consumption in Asia, finds that lifestyles in Asia are increasingly influenced by the escalating consumption patterns of its growing middle class. Asia is expected to be at the forefront of worldwide consumption by 2030, with consumer spending projected to reach \$32 trillion and constitute about 42% of worldwide consumption.

A global survey of young adults on their visions for sustainable lifestyles was published by the United Nations Environment Programme (UNEP) in 2011. According to this survey, very few young people around the world cited dreams of luxury and unlimited material comfort. These young adults portrayed optimistic visions for their lives in the future which included: the capacity to meet one's needs and reach a middle-class standard of living, a fulfilling job providing a sense of self-achievement, a successful family and social life, and a clean environment. Importantly, young adults seek security: financial, social, environmental and personal.

What will it take to have the lifestyles we want, more sustainably?

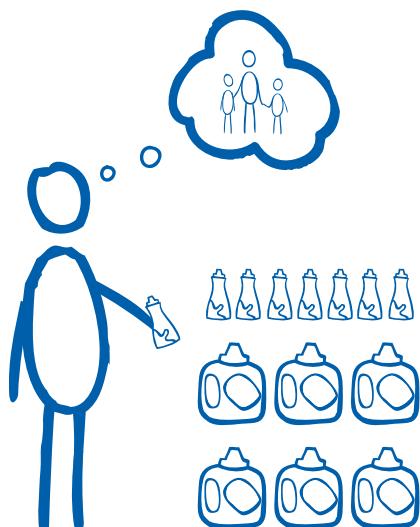
The global population will not change behaviour or lifestyles homogeneously. Each of us has different needs, desires, cultural legacies and habits that we seek to fulfil on a daily basis. Human behaviour and consumer segmentation specialists group people by similarities in terms of motivators, influencers and triggers to behave or act. When it comes to sustainability, studies have found that our sense of empowerment to make change and our ability to delay personal gratification drive many behaviours and daily decisions. For example, consumer segmentation studies show that about 1–2% of us will be leaders in society, feel empowered to make change and advocate what we believe in while

delaying personal gain or gratification for the greater good; about 7–8% of us will do this only if it benefits our families or community and makes a difference in their lives; about 10% of us feel completely outside mainstream society and that our actions make no difference in society; and most of us, 70–80% of people in most societies, are driven by a constant need for instant personal gratification, feeling empowered to make change for ourselves without compromise.

What does this mean for sustainable lifestyles and how can we use this information to enable more sustainable living? These studies suggest that only a small number of us will alter our behaviour or lifestyles to protect the environment alone. Even where well-being and agency are seen as cornerstones of an ideal future, sustainability is not spontaneously considered as a factor of progress – the benefits are not clear.

What this tells us is that information is not enough; we need to make sustainable living options easy. Richard Thaler and Cass Sunstein describe in their recent book, *Nudge* (2008), that every day we make decisions about the way we live, but unfortunately, we often choose poorly. Our mistakes make us poorer and less healthy, and have a negative impact on the planet. By knowing how people think, we can design choice environments that make

it easier for people to choose what is best for themselves their families and their society.



For example, immediate information about what people are buying is important but does not tell us enough about why people buy and what would help them to change impactful consumption or lifestyle habits. Therefore, we need to understand what current behaviours (and lifestyle choices) mean to people and what needs they fulfil. This information can then help us to develop different options and more sustainable ways to fulfil those needs.



We have learned several key things about motivating behaviour change. Here is a sample from our recent work with the social innovation firm, Collective Invention:

Changes proposed have to fill the individual's needs. If the way we live is focused on pleasure and feelings of success, new products and services will only be adopted if they at least maintain and ideally enhance pleasure. A drop in performance or perceived status will not be accepted.

Old behaviours need to be unlearned. Phasing in the change with a new product or service that fulfils the same need helps new behaviours to be learned in a non-critical way and old behaviours gradually reduced. This is why driving a hybrid will be easier for most consumers than cycling or taking public transport.

Instant feedback and positive reinforcement are critical.

This allows people to keep connecting change to things that are important to them. Smart meters that show the energy consumption of your house on a daily basis are an example where you can see your reductions in energy use in real time. Seeing the energy consumption of your house benchmarked against your neighbours, where your consumption is higher, will also tend to be very motivating for behaviour change.

Understanding how people think and what motivates them to act may help policy-makers, community leaders and designers to develop many solution options that better address people's needs, desires and growing concerns. Adding knowledge of sustainability in this process creates new opportunities to drive product, policy and process innovation that will advance broader societal innovation and deliver the future lifestyles we want. We can have it all.

Future Actions – Translating sustainability into meaning for our everyday lives

1. Visualising and demonstrating

We need more examples and demonstrations of what more sustainable living actually looks like. The Collaborating Centre for Sustainable Consumption & Production (CSCP) and Collective Invention have produced a prototype of what more sustainable living could look like in 2050 in the form of a demonstration example of a family living in Europe in the year 2050: The Family YOU. This family is a set of constructed personas that allow us to jump into the shoes of people living in the future and share their lifestyles, and to explore the ways in which possible futures will intersect with the needs, desires and actions of individuals. What policies, infrastructure, services and societal innovations might have enabled these

**'WE NEED MORE EXAMPLES
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living conditions? What behaviour changes are needed to deliver this vision of a more sustainable future?

2. Options, access and availability

We need more options for sustainable living that meet diverse needs and desires. These options need to be readily available and easy to access. The CSCP has developed for the REWE Group, one of the leading trading and travel and tourism companies in Europe, the PRO PLANET product label system. The aim is to support sustainable consumption in the mass market and to offer products with sustainable added value at a good price. The methodology identifies the most adverse environmental and social impacts of the product during its lifecycle, including consumption ('Hot Spot Analysis') and generates strategies to minimise the negative impacts.

At least 80 products across Germany now have a PRO PLANET label, including foods (strawberries, tomatoes, peppers), paper products (toilet paper), textiles (t-shirts) and home

improvement products (paint, wooden flooring). Further analysis and roll-out of other product groups is planned.

3. Innovation at all levels

Achieving sustainable lifestyles will require a radical rethinking of the systems that are currently driving unsustainable trends – innovation is required at all levels of business (business model, product and service innovation), policy (legislation and decision-making innovation) and society (social and societal innovation) – and in partnership or collaboration with each other. Sustainability entrepreneurs are critical actors for enabling a more sustainable future by focusing on the technological, social and infrastructure innovations that will deliver more sustainable lifestyle models.

The CSCP is providing training programmes and tools for the academic community in emerging markets with the aim of encouraging and developing more sustainability entrepreneurs.

The SMART Start-Up initiative began with a programme introducing sustainable lifestyles and sustainable entrepreneurship into African universities and colleges from 2007 to 2010. Currently it is applied throughout Europe, in China and in Brazil.



TECHNOLOGY HOLDS THE KEY TO THE FUTURE

DR RICHARD L WRIGHT,
BEHAVIOURAL SCIENCE DIRECTOR, UNILEVER

As a behavioural scientist in Unilever's Research & Development (R&D) team, the question I ask myself is: how can our science and technology expertise help people to wash their hands before meals, clean their teeth at night and use products more sustainably?

One way science helps is by ensuring that the understanding and theories developed in behavioural science over many years drive Unilever's behaviour change interventions. We turned theory into practice by developing accessible principles that are now used by our brand marketing teams.

However, probably the most powerful means that Unilever's R&D team has to change people's behaviour lies in the large number of consumers we reach: we design products that are used 2 billion times a day. We help shape what and how people eat, how they wash their clothes and clean their teeth. This means that we play a critical role in the behaviour which affects their health and well-being, and the extent to which they impact our planet when carrying out everyday actions.



If we can help all our consumers to make small changes in behaviour then, multiplied by billions of uses, this can make a huge difference to our world. Subtle changes in product design can enable these changes.

However, this isn't about manipulation. It is about making the right choice the easy and desirable choice. It is similar to Thaler and Sunstein's idea of 'nudging'. For instance, shoppers could be 'nudged' to buy more healthy foods if they were presented at eye level in stores.

Some simple 'nudges' in practice

In a similar vein we have 'nudged' our consumers into buying more

**'WE DESIGN
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sustainable, concentrated Omo and Persil laundry liquids because they are lighter and more convenient. If dosed correctly, concentrates provide the same number of washes as 'dilute liquids', while reducing water and waste per bottle, and halving the number of trucks required to transport them. This reduces greenhouse gas emissions per wash. And, because dosing smaller amounts is critical for concentrates, we also 'nudged' them into using the right amount by providing the correct size dosing cap.

A second, more recent, example is Comfort One Rinse. We noticed that consumers in some Asian countries such as Vietnam and India, who handwash their clothes, used three buckets of water at the rinse stage. For these consumers, clothes were not completely rinsed until all the soap foam had disappeared. Comfort One Rinse uses foam-dispersing technology to reduce the amount of foam and thereby the requirement for rinsing decreases to

just one bucket. This has made the task of washing clothes by hand easier and quicker for consumers and delivered an environmental benefit at the same time.

You may wonder why we need to be subtle in our approach to environmental behaviour change. Why can't we just create and market environmentally friendly products under a 'green' proposition? The truth is that most people are not ready to trade off product effectiveness or convenience for the benefit of the environment. In the West, many people drive their car to the local shops because of the convenience. The key to reducing our environmental footprint is, in part, about using sustainable ingredients or more efficient technology but also about creating products that shape people's behaviour while at the same time improving their product experience, not making it worse.

Another area in which technology can make a big impact in behaviour change is in providing the means for accurate behaviour measurement. The availability of small, low-cost electronic sensors has dramatically changed the way we study behaviour in Unilever.

Back to the bathroom – How do we measure accurately?

I have spent a large part of my career wondering what people do in the bathroom when they clean their teeth, go to the toilet or shower. Despite my interest, people's enthusiasm for being watched in the bathroom is limited!



There are critical gaps in understanding what people actually do rather than what they say they do. However, asking them is not a good alternative to watching them; many everyday activities that lead to health or environmental outcomes are habitual and done unconsciously. These are repeated actions that we do without thinking – it comes as no surprise, therefore, that people have a poor ability to tell you what they do.

A second problem with asking people is that they like to present themselves in a positive light. When asked by a doctor, we tend to underestimate our alcohol consumption. This is not because we mistrust the doctor's motives but because an underestimate presents us in a better light. We have found strong 'self-presentation' effects repeatedly in our research; people exaggerate 'good' behaviours such as cleaning their teeth and washing their hands, while they underestimate 'bad' unhealthy or anti-social behaviours.

Our solution to the problem of understanding behaviour has been a technological one. Over the past eight years, I have worked with technologists, inside and outside Unilever, to develop small electronic devices which monitor movement. We embed these into products like soap and toothbrushes and use them in our consumer trials.

When our volunteers use the sensor products, the devices record signals which can be downloaded and

"THERE ARE CRITICAL GAPS IN UNDERSTANDING WHAT PEOPLE ACTUALLY DO."

interpreted back at the laboratory. So we know when and how our products are being used 24 hours a day, 7 days a week. This means we know when farmers in rural India wash their hands and bodies with soap and how many times a week urban Chinese consumers brush their teeth.

We have also used these electronic sensors to test the effectiveness of behaviour change campaigns. Unilever's behaviour change approach (described in the article by B V Pradeep) was used to develop a TV advertisement to encourage children to brush at night. It used the father as a role model, suggesting that children adopt the father's good and bad habits – so teach them a good one such as cleaning your teeth at night. In our study, half the families were shown this advert and the others a TV advert for the same brand but that did not talk about night brushing. All members of these families received sensored brushes and their behaviour was tracked before and after exposure to the adverts.



When asked, both groups claimed to have increased their brushing following the adverts. However, our monitors showed that neither group changed their morning time brushing, while only the group watching the role-model advert increased their evening brushing. Although the exposure to the advert was limited, and the effects small, this real behavioural effect gave us confidence to move ahead with the 'Pablo and Oliver' TV campaign. Had we relied on people's reports we would have seen no difference between the two adverts. Had we wanted to see a clinical outcome, such as reduction in cavities, it would have taken years and cost millions.

We have also developed monitors for soap, bottles and washing machines and now we are even using them to track showering. As well as enabling evaluation, they play a critical role in generating insights which then drive our innovation ideas.

Recently, we conducted what we believe to be the UK's largest showering study. We monitored the showers of 100 families. Using electronic monitors we were able to get over 1,000 days' worth of data, a total of over 2,600 showers. Our monitors recorded when showers were taken and how long they lasted; we also recorded the water flow and temperature of the showers. Some interesting things we found were that the average shower time was around eight minutes – three minutes longer than the popularly conceived 'five-minute shower' and that nearly a quarter of showers used more than the 80 litres of water considered typical for bathing.

These and other insights from our showering study will drive our efforts into 'nudging' people into taking more sustainable showers. We don't yet have all the answers and we are still learning as we trial and develop different programmes. It's an exciting time to be developing behaviour change interventions, and there are many new innovations ahead. I am convinced that in order to change behaviours, technology can and must be key.



DYSFUNCTIONAL POLITICIANS AND THE POWER OF BRANDS

JONATHON PORRITT, FOUNDER DIRECTOR, FORUM FOR THE FUTURE

A bit of me still recoils in a mixture of repugnance and disbelief at the idea that it's going to be the world's leading brands that will rescue us from today's slow but inexorable slide into ecological disaster. After all, many of those brands have been in the vanguard of today's planet-trashing hyper-consumption, contributing not just to today's long list of environmental problems but also to a world ever more viciously divided between the haves and have-nots.

The rich world's elites were only too happy earlier in 2011 to see protestors out on the streets of Tunis, Cairo, Sana'a and Benghazi. The disaffection that gave birth to the Arab Spring was demonstrably 'a good thing', promising the downfall of dictators and the prospect of Western-style, market-based democracies. But they're now more than a little non-plussed at the sight of protestors on the streets of Madrid, Lisbon, London, New York and other US cities – expressing their own bitter disaffection with the failures of that very same brand of market-based democracy. When confronting the gold-plated, ludicrously over-privileged lives

of the richest 1% in the world today, 'we are the 99' may just turn out to be as powerful a rallying cry in the West as in the Middle East.

As those divides deepen, and the planet's life-support systems get just a little more stressed out every year, it seems sort of preposterous to conjure up the power of leading brands to turn things around. As Professor Tim Jackson has pointed out so tellingly in his 2009 book, *Prosperity without Growth*, many brands are very far from being a "force for good" in today's world: "People are being persuaded to spend money we don't have on things we don't need to create impressions that won't last on people we don't care about."

But then just look around you at the broader sustainability scene. The vast majority of consumers today are still either confused/disempowered, or indifferent/ignorant – I know it's not politically correct to say that, but it's true. Worse yet, the vast majority of investors are still intent on maximising short-term returns rather than building over the long-term – even when it's

their own pension funds that they're investing in.

And worst of all, governments the world over would appear to be clueless about transitioning their economies from yesterday's patently unsustainable 'smash and grab, slash and burn' to the kind of sustainable capitalism that offers the prospect of better lives for the 99% while staying within recognised environmental limits – without too traumatic a decline in the living standards of the 1%.

The potential power of brands

So let's not look these branded gift-horses in the mouth. When I compare our politicians' sorry performance on environmental issues with the performance of some of Forum for the Future's leading corporate partners, there's no question who is making the bigger difference. Not just in terms of reducing their own direct footprint, but in helping their customers improve their own lives in increasingly more sustainable and responsible ways.

Brands are so much better placed to narrow that frightening 'values-action gap' that politicians have to confront (where the voters say one thing and promptly do another), and are somehow *more* trustworthy precisely because they are so clearly in the business of making money out of doing the right thing. As Dorothy Mackenzie of the brand consulting business, Dragon Rouge puts it: "People resist moralising statements.

'COMPANIES CAN USE THE POWER OF THEIR BRANDS TO HELP 'NORMALISE' OUR BEHAVIOUR.'

But everyone knows a brand is out to make money and that clarity of intent wins trust."

And that trust creates the space to innovate. While politicians sit around waiting for people to show them where they want to go, companies can use the power of their brands to help 'normalise' our behaviour – 'wash at 30°', 'less is more' (with concentrated detergents or energy-efficient light bulbs), 'healthy choices, better lives', and so on.

Designing in sustainability and dithering politicians

Sometimes it's not even necessary to ask or even inform consumers; build it in – 'sustainability inside', as it were, and don't get too het up if people don't know exactly what those benefits are all about. How many ordinary citizens have the first clue what 'Intel Inside' means, even as they feel vaguely good that the latest gizmo that they're splashing out on offers them that reassurance.

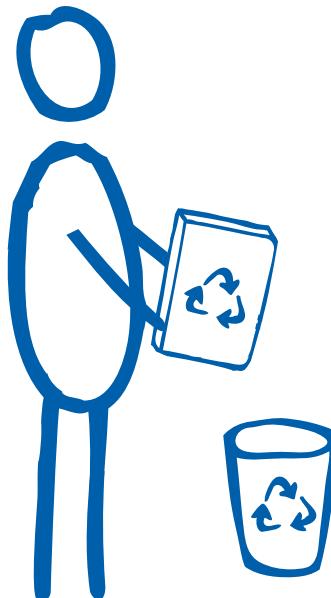


'TODAY'S LEADING BRANDS HAVE A MUCH MORE DYNAMIC STORY TO TELL: 'WE HAVE, SO YOU CAN'.'

And that's about as good as it gets at the moment – as politicians dither and short-termism rules supreme in our capital markets. What we need to do is to build aspirational armies of citizen-consumers who no longer feel the need to get cynical at the idea of 'small actions, big difference'. It's all about scale, as explained by John Thøgersen, Professor of Economic Psychology at the Aarhus School of Business and Social Science in Denmark:

"One of the reasons why people are passive is that they feel no one else is doing anything. When it comes to climate change, your contribution is so small it doesn't really matter. What matters is what other people do. If you don't perceive that many people are also saving energy, then you feel a bit of a sucker because you're losing something without helping the problem."

In that regard, things have moved on a long way from the 'I Will If You Will' message that the UK's Roundtable on Sustainable Consumption first came up with nearly six years ago. Today's leading brands have a much more dynamic story to tell: 'We Have, So You Can'.



And we certainly need to see today's still-fashionable cynicism put aside. Short of the whole global economy imploding in front of our eyes (which I can assure you would do very little to enhance the prospect of a genuinely sustainable world), we have to take people with us, step by step, not beat them into submission.

Solitaire Townsend, one of the co-founders of communications consultancy Futerra, has been particularly trenchant in her critique of conventional environmental campaigning ("Environmentalists are very good at identifying what people *should* desire – not what they actually *do* desire"), exhorting politicians and businesses alike to put "the sizzle" into sustainability, using humour, creativity,

peer-to-peer messaging and real people making a real difference in compelling, sassy ways: “a live, warm-blooded human being is top trumps when it comes to changing behaviour”.

I go with all that – as do all of our corporate partners and their brands. But not at the expense of some deeper probing about the scale of the change required. As yet, even at its best, we’re nowhere near the zone of genuinely sustainable consumption – “less unsustainable consumption is still the name of the game”.

But I really don’t blame companies for that. It’s governments that set the rules within which companies operate – in terms of regulation, taxation, incentives, public procurement and so on. Unfortunately, governments are so in hock to today’s incumbent corporate power-brokers and so timid in the face of the utterly predictable whingeing from trade associations and all those vested interests who stand to lose most as we innovate our way through to a dynamic low-carbon, equitable economy. The most we can expect of such dysfunctional politicians, whatever their party loyalty, is for them not to get in the way of those who’ve seen what a better future really looks like. And are seriously intent on making it happen.

Scenarios for 2020

None of this makes it any easier for leading companies today. I became even more aware of this when we

launched our Consumer Futures 2020 project together with Unilever and Sainsbury’s in October 2011, using four very different scenarios looking forward to different models of sustainable consumption in 2020.

Financial circumstances are so tough today that worrying about 2020 could so easily look and feel self-indulgent: the current mandate for both Unilever and Sainsbury’s, shaped as it is by the overbearing immediacy of now, could so easily crowd out their future mandates. But they know it absolutely mustn’t, and both Amanda Sourry (Chairman of Unilever UK & Ireland) and Justin King (Chief Executive of Sainsbury’s) couldn’t have been clearer in asserting that for their companies there need be no clash between growth and sustainability. Both the Unilever Sustainable Living Plan and Sainsbury’s new sustainability plan (“20 by 2020”) are based on doubling the size of their businesses while getting better and better at managing social, environmental and wider economic challenges. Indeed, both argued strongly that there is no clash, but that they’re mutually reinforcing. Not growth *and* sustainability, but growth *through* sustainability.

Easily said, but one hell of a thing to deliver. Indeed, sustainable consumption sounds so reassuring at one level, but dig down a bit deeper, and it re-presents itself as one of the most compelling challenges of our age.



GOVERNMENTS, NUDGING AND EFFECTIVE SCIENCE

CHARLES ABRAHAM, PENINSULA COLLEGE OF MEDICINE & DENTISTRY, UNIVERSITY OF EXETER

Humanity faces challenges requiring changes in our everyday behaviour patterns at individual and societal levels. We should be optimistic about change because we have thrived as a species largely because of our capacity to adapt and change our behaviour. Nonetheless, action is needed now. What part can governments and scientists play in this challenge?

Consider two examples. Reductions in CO₂ emissions are critical to limiting global temperature rises. This requires a variety of changes in energy usage, including changes in transportation. Transport accounts for approximately 23% of current global energy-related CO₂ emissions and nearly three-quarters of these are generated by road transport. In the US, car travel accounts for up to 91% of all vehicle kilometres travelled, while in the UK,

car travel accounts for up to 78% of road miles. In the context of less expensive cars being mass produced, if we are to protect our habitat we must either substantially reduce the distances we drive or we must replace internal combustion engine cars with vehicles using green energy.

Obesity is a growing global epidemic. If the current rising trend remains unchecked, more than 40% of the UK population will be obese by 2050, resulting in a national annual cost of £49.9 billion. Obesity reduces life expectancy mainly because of the increased risk of cardiovascular disease and diabetes. It is also associated with an increased likelihood of developing kidney disease, osteoarthritis, several cancers, hypertension, dementia, asthma and depression. While increasing physical activity can



'WE HAVE THRIVED AS A SPECIES LARGELY BECAUSE OF OUR CAPACITY TO ADAPT AND CHANGE OUR BEHAVIOUR.'

contribute much to obesity prevention and weight control, the real challenge is to end over-eating.

These two examples highlight the importance of behaviour change to policy formulation. Transport policy is critical to meeting emission reduction targets, which in turn impact on the maintenance of our global habitat. The financial viability of supporting health services is threatened when they are increasingly burdened by health problems resulting from over-eating. Unsurprisingly, then, governments have become increasing concerned with understanding behaviour change.

Political acknowledgement of the need for behaviour change

Many governments have taken an interest in the science of behaviour change. Here we focus on recent UK developments. In 2007 the government commissioned the National Institute for Health and Clinical Excellence (NICE) to

provide guidance on behaviour change for the UK National Health Service. A broad framework was developed which is soon to be updated and developed.

More recently, the government has established a Behaviour Insights team to integrate evidence-based behaviour change interventions across government departments. This unit has been strongly influenced by Thaler and Sunstein's book Nudge. NUDGE is an acronym that refers to a range of distinct behaviour change techniques. However, the defining feature of a nudge is a change to the 'choice architecture' around us that in turn changes our motivation or decisions. For example, placing confectionery near supermarket checkouts is a 'nudge'. Thaler and Sunstein refer to anyone with the power to change the environment that prompts decisions, from doctors to supermarket managers to policy-makers as 'choice architects'.

To help policy-makers employ nudges and other behaviour change techniques the UK Institute for Government has produced a checklist of change processes organised around the acronym MINDSPACE (Messenger, Incentives, Norms, Defaults, Salience, Priming, Affect, Commitments and Ego). Each of these processes can be translated into specific behaviour change techniques relevant to particular behaviours and policies.

In 2011, the Committee on Science and Technology of the House of Lords



'THE KEY QUESTION IS: WHICH NUDGES MAY BE EFFECTIVE, WHEN AND FOR WHOM?'

undertook an inquiry into behaviour change which the UK government responded to. The committee made a variety of recommendations to government on how it might: use the best available evidence on behaviour change; best communicate with behaviour scientists; commission large-scale research into the population-level effects of behaviour change interventions; ensure that behaviour change interventions are properly evaluated so that lessons can be learned; work with industry to bring about behaviour changes; and tackle issues such as food labelling, marketing aimed at children and a reduction in car usage.

Research challenges highlighted by the House of Lords inquiry

The House of Lords inquiry highlighted a series of challenges for research

into behaviour change. The inquiry concluded that nudges may not often work alone. So the key question is: which nudges may be effective, when and for whom? And which other behaviour change techniques should nudges be combined with to optimise their effectiveness?

The inquiry also highlighted the importance of evaluating behaviour change interventions. If the science of behaviour change is to advance, we need to know what works and what does not. It is not enough to ask participants in a behaviour change study whether they noticed or liked the intervention. We need to measure behaviour before and afterwards among samples who do and do not receive interventions to assess their effectiveness. While this seems obvious to most scientists, unfortunately it is not the norm in commissioning of behaviour change interventions. Consequently, the inquiry noted an unfortunate dearth of rigorous, long-term evaluations of interventions designed to change behaviour using population-representative samples. Research of this type is required by policy-makers if they are to identify interventions which are ready to be rolled out across populations. The main implication of this observation is for the funders of research. Such trials are very expensive and require long-term financial support. Co-operation among funders to identify potentially effective interventions worthy of such support and testing is needed.

Towards a science of behaviour change

The content of behaviour change interventions is crucial to their effectiveness. So understanding what content is associated with effectiveness for which behaviours is fundamental. Unfortunately, the absence of standardised definitions of behaviour change techniques included in interventions can make it difficult to specify exactly what was in an intervention and, therefore, impedes accurate replication.

Nudge, MINDSPACE and other lists of approaches to behaviour change provide useful pointers to the definition of core behaviour change techniques.

"EFFECTIVE BEHAVIOUR CHANGE INTERVENTIONS ARE NEEDED TO RESOLVE A VARIETY OF GLOBAL CHALLENGES FACING HUMANITY."

However, further progress will depend on systematic analyses of what is included in more or less effective behaviour change interventions – and for whom.

Effective behaviour change interventions are needed to resolve a variety of global challenges facing humanity. Politicians are increasingly aware of the need to use effective behaviour change interventions to promote national well-being. This places a responsibility on behavioural scientists to develop broad and inclusive frameworks to understand change processes and mechanisms at individual, group, societal and international levels. Moreover, we need to match well-specified behaviour change techniques to these key mechanisms of change.



EXITING THE VALLEY OF DEATH

SIMON ZADEK, INDEPENDENT ADVISOR; SENIOR VISITING FELLOW, GLOBAL GREEN GROWTH INSTITUTE

Start-up companies have named the most dangerous moment in their development as the 'Valley of Death' - the moment between proof of concept and the beginning of mass production and significant sales. It is the place where most dreams perish in the face of conservative capital markets that doubt an entrepreneur's abilities to beat the competition.

Sustainability has reached its own valley of death. After two decades of intense activities, we have excellent data on the nature and scale of the problem, an abundance of cases of successful experiments, and the growing attention of political and business leaders. Yet we cannot leverage our insights, resources and passion to contain our production of carbon, manage the scarcity of water, or dampen the speculative fluctuations in the price and availability of basic foodstuffs. De-materialised products, rentalised markets, renewable power and sustainability standards are amongst the social innovations that have provided inspiration and advances in offering consumers greener choices. Yet whilst our call to arms has been for



transformation, we are, in practice, celebrating incremental changes in the spirit of increasingly desperate optimism.

Yet although we bemoan the lack of much-needed speed-to-scale in advancing the sustainability agenda, scale is something we know a lot about - in selling mobile phones, going to war, watching the World Cup, or in catalyzing fundamentalism in its many forms. Markets, governments, and communities in action have been societies' three historic instruments for achieving scale. Business, the world's most fashionable vehicle of change over recent decades across richer

'MARKETS, GOVERNMENTS, AND COMMUNITIES IN ACTION HAVE BEEN SOCIETIES' THREE HISTORIC INSTRUMENTS FOR ACHIEVING SCALE.'

nations, can in quick time sell billions of packets of crisps, tens of millions of cars and millions of handguns. If the price is right, businesses can innovate, produce and deliver, and citizens will turn out en masse and do the right thing, namely buy. But the logic of the business community has, to date, limited its ability to deliver sustainability-aligned products and services at scale. Today's backward-facing markets, in the main, only reward companies for doing the right thing on the margin. Despite exemplary businesses, innovative products, technological advances and the fact that most people do care about other people and the planet, most profits are still made by selling lots of stuff that is produced, and then used, in environmentally unsustainable and often socially-destructive ways.

Government and the power of public policy

Government, after religion, is arguably our most venerable institution for scaled action for the broader interest - in principle, at least. Most obviously, it does much to define what should not be done, set out through the rule of law. Fiscal policy also plays a critical role in driving consumer behaviour, with feed-in tariffs (or their equivalent) crucial for advancing renewables, whilst perverse fossil fuel subsidies encourage unsustainable lifestyles. Governments have soft as well as statutory and fiscal instruments. The decline in smoking throughout wealthier nations resulted from a combination of public education and a gradual restriction in social space for exercising the habit. Public education, from classrooms to billboards, has played a major role in socialising a deeper, inter-generational appreciation of sustainability, from climate to waste to health management. And governments are big spenders, with contestable public procurement globally amounting to US\$4-5 trillion annually, and some have indeed moved, albeit slowly, in greening this voluminous purchase of goods and services.

Public policy counts in achieving scale, and so enabling business to do what it does best in ways that are sustainability aligned. The nexus between business and government is critical in shaping options facing citizens as consumers, voters, employees and investors. Both together have the power to make or prevent change, complementing



"PEOPLE FROM EVERY WALK OF LIFE WILL JOIN TOGETHER, DESPITE THEIR HUGE DIFFERENCES, TO CHALLENGE WHAT IS JUST PLAIN WRONG."

each others' strengths and offsetting each others' weaknesses. The US's environmental shortfalls can be directly attributed to the power of businesses that benefit from the status quo, whatever the cost. Meanwhile, Denmark's new government has come to office with a mandate to double the country's carbon emission reduction targets to 40% by 2020 and to deliver an energy system powered largely by wind by the same date, providing a strong domestic basis for building its next generation of global exporters. Similarly, the Korean government is driving forward with the nation's business community, an integrated green economy with every intention of taking global markets by storm. Brazil and China, also, are leading in shaping domestic policies to incentivise green business, whilst simultaneously advancing their immediate development agendas.

Social norms and collective action

Citizens' norms of concerns and behaviour in large part define the difference between nations like Denmark and Korea, and those failing to progress, such as the US. These are in no small part shaped by governments alongside business. After all, citizens did not stand up and demand the internet, they merely responded to the increasingly persuasive offer. Yet this closed loop is not the entire story. Germany's decision to green its power system was built on a deep sensibility of its citizens towards the environment, just as others have tapped national sensibilities, including problematic ones like nationalism and other aspects of identity. At a far smaller scale, after all, support for 'fair trade' products from coffee to cotton was born in Europe's churches, community centres and political movements. Major events can also be important turning points, such as Japan's recent nuclear disaster.

People, that is, citizens acting together, are our third way of fracturing and seeking to replace incumbent social norms and outcomes that are no longer acceptable. The Arab Spring in Tunisia, Egypt and elsewhere demonstrate vividly that people can and do rise together and say 'enough', even to those with the destructive power and the willingness to exercise it.

OccupyWallStreet - and its thousand or so companion protests - show us that people from every walk of life will join together, despite their huge



differences, to challenge what is just plain wrong. But these dramatic cases also illustrate the potential poverty of social movements that can declare 'enough', but do not identify, cohere and secure the next steps. Although these unfolding histories are far from complete, the concern from Cairo to the City of London is that these cathartic societal experiments might fail to deliver the much-needed new economics.

There is no sign that the Muslim Brotherhood is concerned with Egypt's dirty and weakened economy. Equally, there is no obvious sign that the US and UK governments are inclined to respond to OccupyWallStreet's call for reform of the financial sector, the lifeblood or life-taker of the real economy, with anything but platitudes or worse.

Exiting sustainability's valley of death is not about public policy, business initiative, or citizen action – it is about all three and their dynamic alignment with each other. Citizen actions that create scaled change will be collective, not necessarily on the streets, but as social norms confirmed in bars, taxis,

workplaces and schools, and only in the end at the point of purchase. Shaping new social norms that underpin citizens' collective action is a task where businesses and governments have an important catalyzing role to play. Government policies are a product of artful politics, occasionally inspired by crisis and leadership, shaped by business interests, and underpinned by the ultimate need to satisfy the public in all but the most despotic cases. And, finally, to achieve scale, progressive businesses will have to help to create the political space to shape the right enabling policies, edging to one side their resistant competitors, and mobilising citizens' support in encouraging governments to do the right thing. Only with such alignment will public policy play a fulsome role, opening the opportunity for us to exit sustainability's valley of death.



INSPIRING SUSTAINABLE LIVING

A Summary of Unilever's Five Levers for Change



This Lever is about reinforcing and reminding.

- Once people have made a change, what can we do to help them keep doing it?



This Lever raises awareness and encourages acceptance.

- Do people know about the behaviour?
- Do they believe it's relevant to them?



This Lever demonstrates the proof and payoff.

- Do people know when they're doing the behaviour 'right'?
- Do they get some sort of reward for doing it?



This Lever is about understanding people's perceptions of themselves and their relationship with broader society.

- Will doing this new behaviour fit with their actual or aspirational self-image?
- Does it fit with how they relate to others or want to?



This Lever establishes convenience & confidence.

- Do people know what to do & feel confident doing it?
- Can they see it fitting into their lives?

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