A FRAMEWORK FOR PRO-ENVIRONMENTAL BEHAVIOURS
Defra January 2008

This report sets out a framework for Defra’s work on pro-environmental behaviour. It pulls together evidence on public understanding, attitudes and behaviours; identifies behaviour goals; and draws conclusions on the potential for change across a range of behaviour groups.

The headline behaviour goals
- Install insulation - Better energy management - Install microgeneration - Increase recycling - Waste less (food) - More responsible water usage - Use more efficient vehicles - Use car less for short trips - Avoid unnecessary flights (short haul) - Buy energy efficient products - Eat more food that is locally in season - Adopt lower impact diet
Practical consciousness

Awareness and choice

Informs a lot of discussion about how to engender sustainability
Considers habits in isolation
Often implausible in terms of daily routines e.g. comfort, cleanliness
choice, change, belief, attitude, information, behaviour

But what if we see consumption as consequence of ordinary practice?

What is required in order to be a ‘normal’ member of society?

How does this change, and with what consequence for sustainability?
Comfort and indoor environments

it is becoming normal to expect 22 degrees C inside, all year round, all over the world and whatever the weather outside

Cleanliness and showering

it is becoming normal to shower once or twice a day (in the UK, the amount of water used for showering is expected to increase five fold between 1991-2021)

Laundering

From once a week to once a day or more, but with lower temperatures than ever before

Similar trends – naturalisation of need

but possibly different dynamics

and different implications for the future
In Europe primary energy consumption by buildings is around 50% of total energy consumption.

Almost 50% of this energy is used in the provision of indoor climate control for occupant comfort.

The costs of “comfort”

Heating, cooling and the human body

The changing relation between indoors and out
How come 22 degrees C?

physical parameters and cultural concerns

sea breeze or mountain air

what climate to provide?
Defining comfort
Standardising comfort, sweat and smell: the clo and the olf

The standard amount of insulation required to keep a resting person warm in a windless room at 70 °F (21.1°C) is equal to one Clo.

Units were chosen so that 1 clo would be roughly the insulating value afforded by a man’s underwear and a lightweight suit, or “a heavy top coat alone.”

The Olf is a unit used to measure the scent emission of people and objects.

One olf is defined as the scent emission of an "average person", a sitting adult that takes an average of 0.7 baths per day and whose skin has a total area of 1.8 square metres; the scent emission of an object or person is measured by trained personnel comparing it to normed scents.

Standardising science also matters for ventilation rates and energy consumption.

Professor Fanger in his "Doctor-dress" at a reception at DTU, June 14, 2001
Path dependence and comfort

- air-conditioning: from luxury to necessity
- locked into building design: no eaves, no porch in exchange for central air conditioning
- locked into ways of life: no veranda, no pools, no lemonade
If a building is set, regularly at, say, 22 °C the occupants will choose their clothing so that they are comfortable at that temperature.

If enough buildings are controlled at this temperature, it becomes a norm for that society at that period of its history, and anything different is regarded as ‘uncomfortable’

(Humphreys 1995: 10)
escalating consumption
GETTING WET ALL OVER

- something to be avoided: leaky bodies, water and danger
- an occasional activity undertaken by a small section of the population
- a regular practice for most people
- a daily routine for most people
The needle shower
1850s, Motts Catalogue

‘a most complete bath ... the four different sprays may be used together or separately, at the immediate control of the bather’

Not suitable for women (too bracing)
Features the latest thermostatic controls
Offers hydrotherapy in the home
Incredibly expensive
Bathing and civilisation

National identity

Cleanliness and godliness

Dirt and social disorder

Sanitary science

Moral duty
Bathroom infrastructure
Lots of stuff
Ideal Home 2003

exhibition model includes

Telephone
Radio
Seat
Aromatherapy option
Steam option
De-luxe version for two persons

Offers instant relaxation, quick release from stress
What might showering become?
Representations of what bathing means for self in society. How is bathing located: as preparation for social interaction or recuperation from it?

Representations of what bathing means in terms of the body and its relation to nature. How is bathing located with respect to the purification of the body and the restoration of 'natural' balance?

Representations of bathing as pleasure and duty. How is bathing located in terms of indulgence and obligation?
Increasing frequency

- 21% of per capita domestic indoor water use in the USA and 12% in the UK
- 40-60 litres per wash in the UK but 80 in the USA
- 274 cycles per year in the UK but 340+ in the USA

Decreasing temperatures

- 92% homes have washing machine in the UK
- 1970s - 25% washed at 90 degrees C.
- 1998 - 7% washed at 90 degrees C.
So do things feel different as well when you haven't washed them?

I feel different -

I know I’m clean - I know I've put all clean clothes on - so I'm alright - do you know what I mean? . . . it wasn’t dirty, it wasn’t smelly or anything, it just really wanted freshening in my mind
A generation ago, ‘boiling was considered essential for getting the wash really clean and germ free’

Whiteness as the measure of cleanliness – the reflectometer

“Whatever comes out of the machine, to me that is clean”
What is there to launder?
What stocks, fabrics and types of clothing are involved?

What are the tools of laundering?
What devices, appliances and chemicals are involved?

How is laundry done?
What steps and stages? What skills and expertise? Who does it?

When to launder?
What are the cycles and flows of washing, wearing and appearance?

Why launder?
For sensation, display, disinfection, deodorisation or routine.

What is there to launder?
What stocks, fabrics and types of clothing are involved?

Understandings of service – of what it means to do the laundry – emerge as consequence of constituent practices, technologies and conventions.
Questions for energy policy

to which energy-consuming practices do these models apply?

In which direction and at what rates are ratchets, pinwheels and systems of systems turning?

What are the ‘windows’ of opportunity for policy intervention in each case?
Could this be the future of comfort?
New commercial opportunities
The future of clothing care?

Freshening machines - not washing at all

Re-introduce commercial laundries - electronic tagging

Renting clothing, shifting fashions (commercial and domestic cleaning), fully serviced clothing

From foul to fragrant

Textures and textiles
Merino Fresh
Is a revolutionary concept. This technology enables woven products made from merino wool, such as suits, trousers or skirts, to be simply cleaned and refreshed using a domestic shower.

Australian wool innovation
Geels 2002.
Social theory of practice: explaining daily showering

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<thead>
<tr>
<th>Image</th>
<th>Stuff</th>
<th>Procedure</th>
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<tbody>
<tr>
<td>Regeneration of whole body and of civic order</td>
<td>Public provision, collective infrastructure</td>
<td>Collective event, shared social calendar</td>
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<td>Moral-medical discipline, disease and disorder</td>
<td>State investment in public health</td>
<td>Regular private habits, weekly schedules.</td>
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<td>self image, invigoration freshness, and fitness</td>
<td>Instant hot water, private bathroom(s)</td>
<td>Fragmented moments, speed and convenience</td>
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Requires an extended vocabulary
Routine/ordinary consumption
Practice, convention, routine, dynamics of sociotechnical systems, structuring of options, standardisation, globalisation

Where the real challenges lie

Where most effort has focused

Reflexive/conspicuous consumption
Individual belief, attitude, behaviour, information, persuasion
But old habits die hard……

Twelve Steps to Help You Kick the CO2 Habit

“The day's agenda is to give a human face to environmental issues; empower people to become active agents of sustainable and equitable development”

…. Or, “The day’s agenda is to position C02 as an matter of personal addiction, thereby denying the social and institutional reproduction of habit, or any wider politics of consumption, production and demand”