

# Multiple Models and Multiple Dimensions of Behaviour

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*Behaviour, Energy and Climate Change (12-14 November 2012)*



University of the  
West of England



**better**together

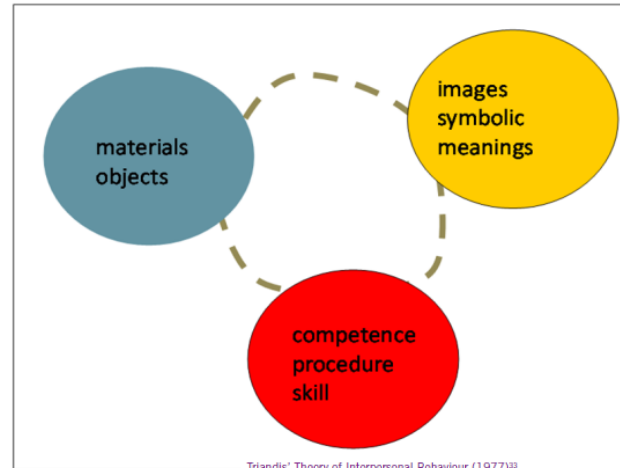
# Background

- 15 years of working at interface of science and policy in UK and elsewhere - air pollution and climate change
- BA in social science, PhD in atmospheric modelling
- 2010-11: 12-month ESRC (social science) Fellowship in UK Department of Energy and Climate Change (DECC)
- ESRC Follow-on Funding to work with DECC and Departments of Environment, Transport and Planning/Communities

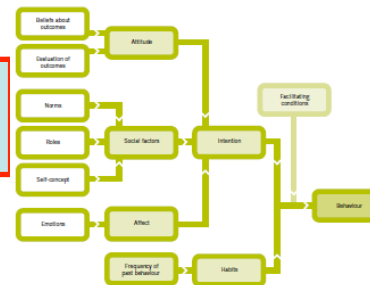
When is a 'behaviour' not  
(simply) a 'behaviour'?

# A Multiple Model Approach

Social Practices – Elizabeth Shove



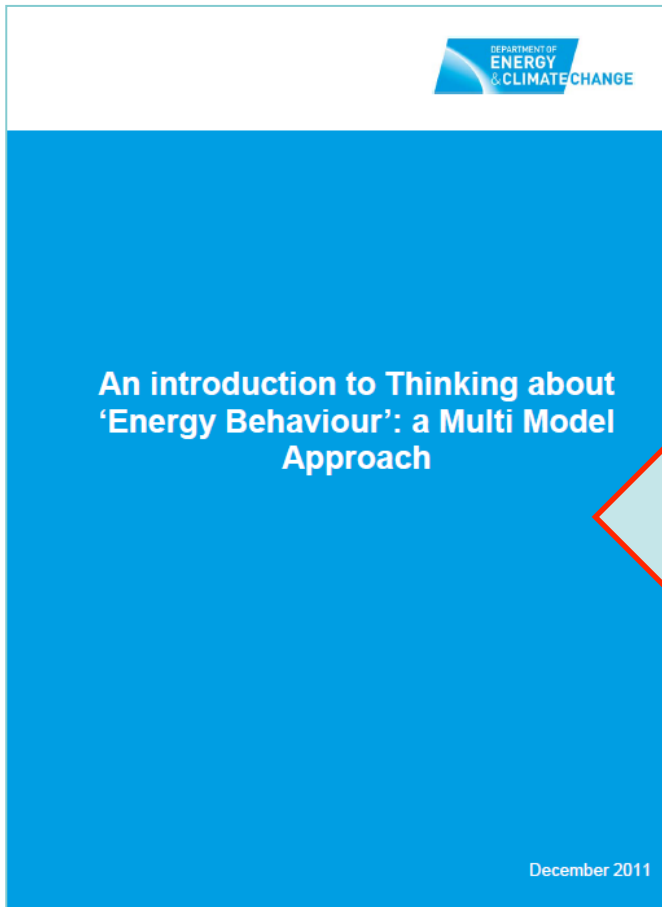
Triandis' Theory of Interpersonal Behaviour (1977)<sup>33</sup>



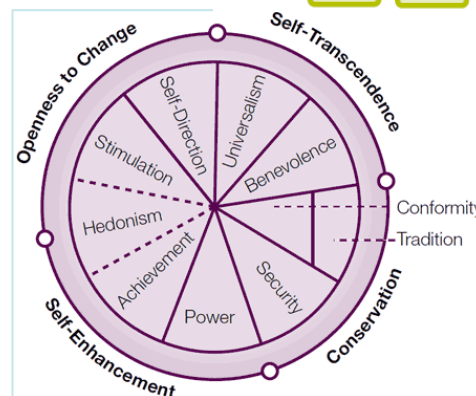
Behavioural Economics/  
Social Psychology



“Behavioural  
Insights Team”



<http://tinyurl.com/energy-behaviour>



Values and Frames - Tom Crompton/Common Cause

# Behaviour change & theory: government

“Many disciplines have something to say about human behaviour, including *economics, psychology, sociology and anthropology.*”

Within government, ‘behaviour change’ (often applied through social marketing campaigns) *tends to be dominated by social psychological and (behavioural) economics thinking.*”

From Central Office of Information (2009).  
“Communications and Behaviour Change”.



# Behaviour change & theory: academics

doi:10.1068/a42282

## Beyond the ABC: climate change policy and theories of social change

Elizabeth Shove

Department of Sociology, Lancaster University, Lancaster LA1 4YT, England;

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Received 21 July 2009; in revised form 2 November 2009

*Environment and Planning A* 2011, volume 43, pages 258–261

**Abstract.** In this short piece, I explore the potential of the ABC paradigm of 'ABC' to create blind spots in our understanding of social change.

doi:10.1068/a43359

### Commentary

#### Climate change or social change? Debate within, amongst, and beyond disciplines

In "Beyond the ABC: climate change policy and theories of social change" Shove (2010) acknowledges the need for an openness and quality of research. Shove aims to challenge our understandings of social change as a huge societal challenge.

doi:10.1068/a43484

### Commentary

*Environment and Planning A* 2011, volume 43, pages 2781–2787

#### On the difference between "Beyond the ABC"

In their critique of "Beyond the ABC" Shove and Whitmarsh contend that behavioural and social scientists should contend that contribute to the debate in order to address climate change.

doi:10.1068/a44404

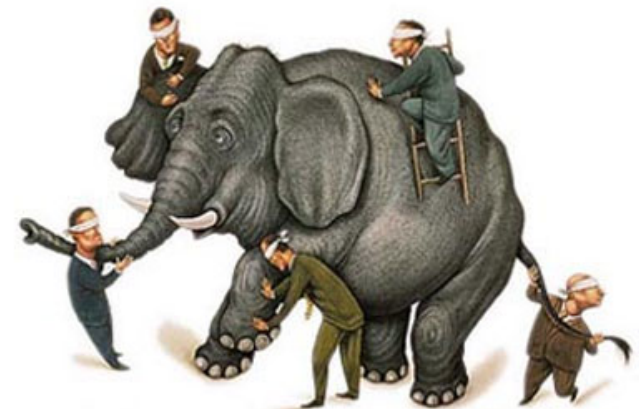
### Commentary

#### Multiple models to inform climate change policy: a pragmatic response to the 'beyond the ABC' debate

We have followed with interest the debate in this journal between Shove (2010, 2011) and Whitmarsh and colleagues (2011) on contrasting theoretical approaches and representations of proenvironmental behaviour and social change, and of the potential, rationale, and merit of interdisciplinarity or integration. In this commentary we offer a pragmatic response to the issues being debated from the perspective of policy makers concerned with near-term reductions in greenhouse gas emissions. This response is informed by the recent experience of one of us (Chatterton) during a year-long Research Council UK (RCUK) Energy Programme Fellowship as a social scientist based in the Department of Energy and Climate Change (DECC).



"Listen, I just don't think this is ever going to work"



# Towards a multiple models approach



**“All models are wrong, but some of them are useful”**

**George E.P. Box (1979)**

# What is the 'behaviour' in behaviour change?

**behaviour** [bɪ'heɪvjə] *n.*

- Manner of behaving or conducting oneself
- The actions or reactions of a person or animal in response to external or internal stimuli.
- Performance of 'social practices'

Behaviour = “Observable Action”?



# Are behaviours the same?



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# How do they differ?

# Types of Behaviour

From “A Framework for Pro-Environmental Behaviours”  
Defra 2008

<b>One-off</b>	<b>Purchasing Decision</b>
<b>Occasional</b>	
<b>Regular</b>	<b>Lifestyle</b>
<b>Habitual</b>	
<b>Everyday</b>	

# What are the main ways in which thinking on behaviour change differs?

**ACTOR** - Who or what is carrying out the behaviour?

**DOMAIN** - What shapes or influences the behaviour?

**DURABILITY** - What is the relationship between the behaviour and time?

**SCOPE** - How does the behaviour inter-relate with other behaviours?

***→ 4 dimensions of a framework  
for thinking about behaviours  
in a behaviour change context***

# Example: the ‘actor’ dimension

**MINDSPACE “sets out the most robust effects that influence individual behaviour”**

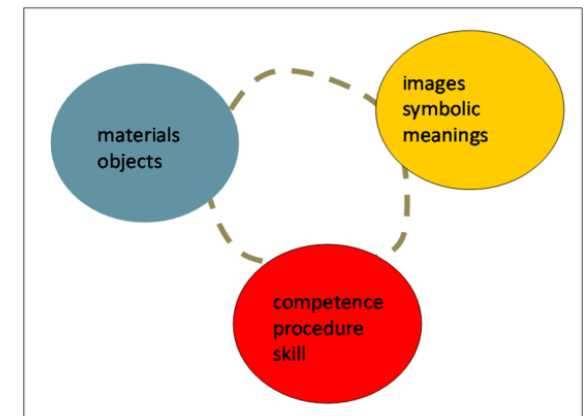


Individual as unit of enquiry



“The individual is no longer the unit of enquiry”

**“Practices ... cannot be conceived as a set of individual actions, but ... are essentially modes of social relations, of mutual action”**  
(Taylor 1971 from Shove et al. 2012)



In a multiple models framework,  
each dimension has different possible levels

<b>ACTOR</b>	Individual	Inter-Personal Network	Community ( <i>shared id.</i> )	Segment/ Group	Population
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**Who, or what is enacting the behaviour?**



# Full framework for characterising behaviours: 4 dimensions x 5 levels

<b>ACTOR</b>	Individual	Inter-Personal Network	Community	Segment/ Group	Population
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**Who, or what is enacting the behaviour?**

<b>DOMAIN</b>	Cognitive	Bodily	Technological	Institutional / Social	Infrastructural/ Environmental
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**What are the influences on the behaviour?**

<b>DURABILITY</b>	One-off	Repeated	Dependent	Enduring	Norm-Setting
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**What relationship does time have with the behaviour?**

<b>SCOPE</b>	Discrete	Inter-Related	Bundled	Structuring	Pervasive
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**How does the behaviour relate to other behaviours?**

# Buying a Plug-In Vehicle

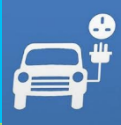

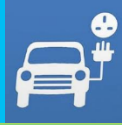

Who, or what is enacting the behaviour?

Actor	Individual	Inter-Personal Network	Community	Segment/Group	Population
					



What shapes or influences the behaviour?

Domain	Cognitive	Bodily	Technological	Institutional/Social	Infrastructural/Environmental
					

How does the behaviour relate to time?



Durability	One-off	Repeated	Dependent	Enduring	Norm-Setting
					

How does the behaviour inter-relate with other behaviours?





Scope	Discrete	Inter-Related	Bundled	Structuring	Pervasive
					

# Eco-Driving

Who, or what is enacting the behaviour?

Actor	Individual	Inter-Personal Network	Community	Segment/ Group	Population
					



What shapes or influences the behaviour?

Domain	Cognitive	Bodily	Technological	Institutional/ Social	Infrastructural/ Environmental
					

How does the behaviour relate to time?

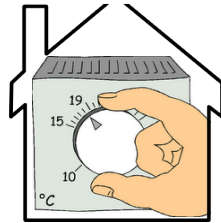
Durability	One-off	Repeated	Dependent	Enduring	Norm-Setting
					

How does the behaviour inter-relate with other behaviours?

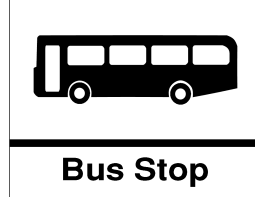
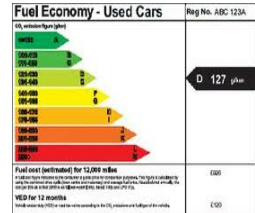
Scope	Discrete	Inter-Related	Bundled	Structuring	Pervasive
					



ACTOR	Individual	Inter-Personal Network	Community	Segment/ Group	Population
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DOMAIN	Cognitive	Bodily	Technological	Institutional / Social	Infra-structural
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DURABILITY	One-off	Repeated	Dependent	Enduring	Norm-Setting
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SCOPE	Discrete	Inter-Related	Bundled	Structuring	Pervasive
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# ‘Mapping’ behaviours using the framework points to most appropriate models or theories

Most likely to be emphasised by conventional micro-economics

ACTOR	Individual	Inter-Personal Network	Community	Segment/Group	Population
DOMAIN	Cognitive	Bodily	Technological	Institutional/Social	Infrastructural
DURABILITY	One-Off	Repeated	Dependent	Enduring	Norm-Setting
SCOPE	Discrete	Inter-related	Bundled	Structuring	Lifestyle

Most likely to be emphasised by MINDSPACE

ACTOR	Individual	Inter-Personal Network	Community	Segment/Group	Population
DOMAIN	Cognitive	Bodily	Technological	Institutional/Social	Infrastructural
DURABILITY	One-Off	Repeated	Dependent	Enduring	Norm-Setting
SCOPE	Discrete	Inter-related	Bundled	Structuring	Lifestyle

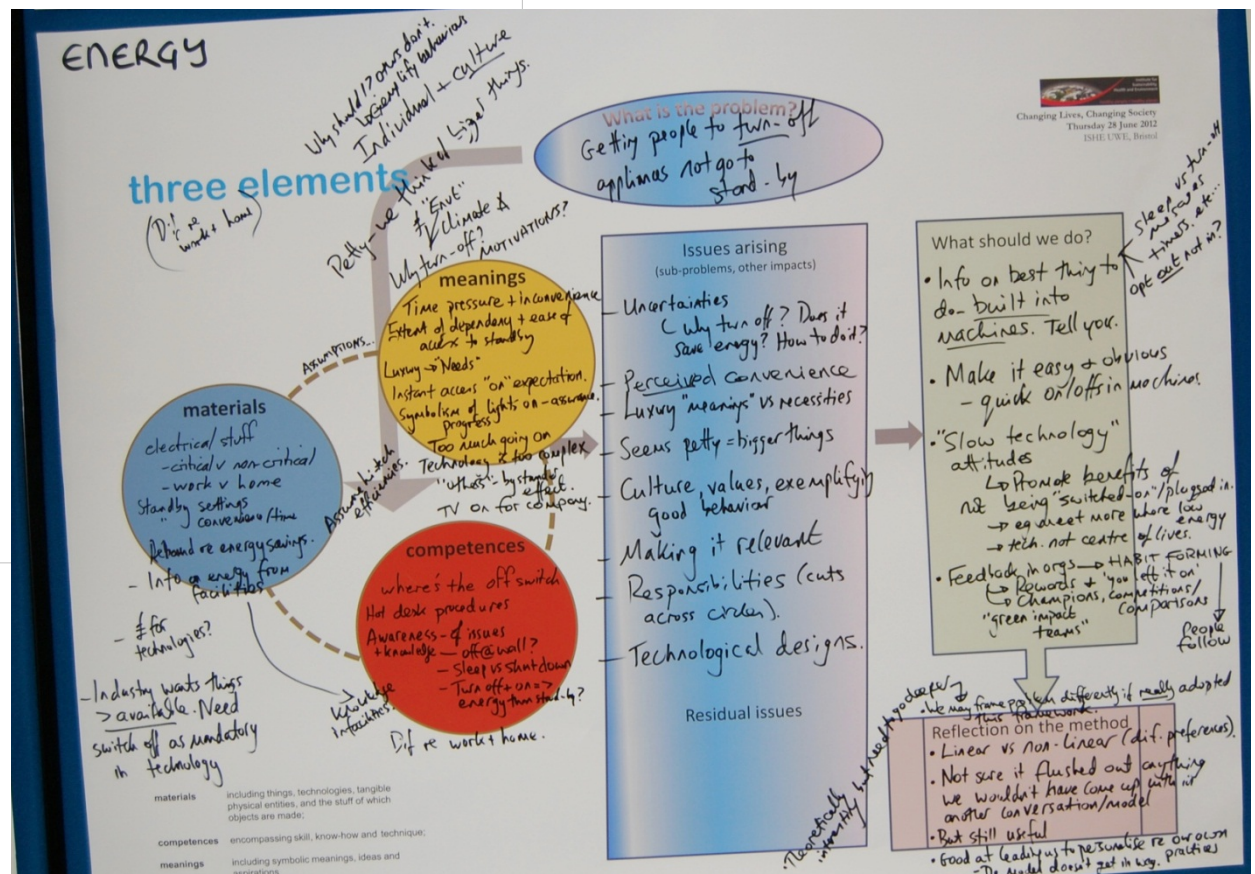
Most likely to be emphasised by Practice Theory

ACTOR	Individual	Inter-Personal Network	Community	Segment/Group	Population
DOMAIN	Cognitive	Bodily	Technological	Institutional/Social	Infrastructural
DURABILITY	One-Off	Repeated	Dependent	Enduring	Norm-Setting
SCOPE	Discrete	Inter-related	Bundled	Structuring	Lifestyle

Working with IEA on using the scheme to compare >40 different models/theories

# Framework also helps open up behaviour change thinking more generally

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Changing Lives, Changing Society  
Thursday 28 June 2012  
ISHE UWE, Bristol

**Institute for Sustainability,  
Health and Environment**

healthy people + healthy planet

# ENERGY



Changing Lives, Changing Society  
Thursday 28 June 2012  
ISHE, UWE, Bristol

## Workshop : Summary

What is the problem?  
Setting people to turn  
appliances off  
stand-by

Final review: Three key actions to address  
the problem posed:

1. CREATE 'SLOW TECHNOLOGY  
MOVEMENT'
2. INFORMATION ON WHAT  
YOU SHOULD DO.
3. MANUFACTURE FOR  
ENERGY EFFICIENCY

Reflections on the methods

### three elements

positives	negatives
NOT DETAILED ON PROMPTS	TOO NON-LINEAR?
FLUSHES LOTS OF THINGS OUT	HARD TO KEEP CONTAINED IN ORGANISATION
OPENED STUFF UP + MORE CREATIVE	HARD TO TURN INTO ACTION
WHAT ACTUALLY IS THE PROBLEM	DOESN'T FIT IN DEPT. RESULT
VISION WHERE WE WANT TO GET TO	
<b>mindspace</b>	BRINGS OUT MORE PERSONAL EXPERIENCE

positives	negatives
GOOD FOR PROMPTS FOR DISCUSSION	NOT GOOD FOR RECORDING IT
GOOD FOR VERY LIMITED SCOPE INTERVENTION	QUITE CONSTRUCTIVE
EASY TO DELIVER ON	MIGHT MISS THE BIGGER PICTURE

Reflections on learning  
COMPLEMENTARY IN WAYS  
VERY INTERESTING INTER-PLAY BETWEEN THEM ON INDIVIDUALS  
PERS EXP → EVERYTHING vs GEN LAWS  
TECHNOLOGY + PHYSICAL THINGS  
KEY IN '3 ELEMENTS'  
3 ELEMENTS TAKES LONGER TERM VIEW

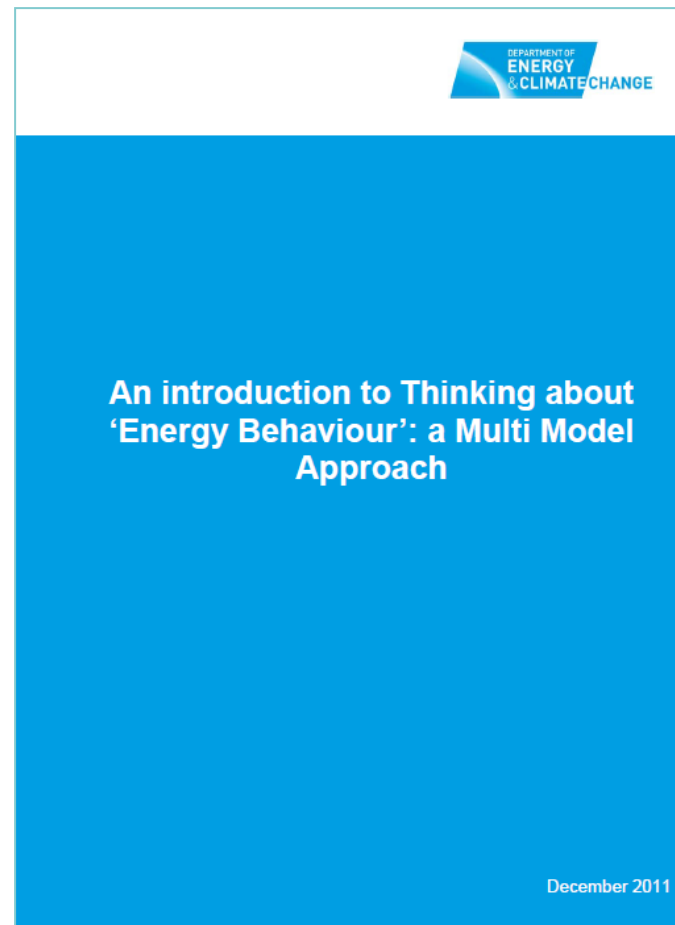
# Transparent & systematic framework for characterising behaviours can help

- ‘Behaviours’ targeted by interventions are diverse
- Characterising behaviours should improve intervention design
- Framework also helps more plural and open use of models

<b>ACTOR</b>	Individual	Inter-Personal Network	Community	Segment/ Group	Population
<b>DOMAIN</b>	Cognitive	Bodily	Technological	Institutional / Social	Infrastructural/ Environmental
<b>DURABILITY</b>	One-off	Repeated	Dependent	Enduring	Norm-Setting
<b>SCOPE</b>	Discrete	Inter-Related	Bundled	Structuring	Pervasive

# Thank you!

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<http://tinyurl.com/energy-behaviour>

## **Actor:**

### **Who, or what is carrying out the behaviour?**

**Individual** – is the behaviour carried out or done by single individuals in isolation?

**Inter-Personal Network** – does the behaviour involve close networks of people, such as families, households, or social groups?

**Community** – does the behaviour involve ‘communities’ of people who share values or practices which identify them closely with one another?

**Segment/Group** – does the behaviour involve specific groups of people such as a neighbourhood or a socio-demographic segment who do not necessarily have any personal connection nor shared self-identity?

**Population** – is the behaviour more or less universal, done by all irrespective of any of the above distinctions?

## Domain:

### What shapes or influences the behaviour?

**Cognitive** - is the behaviour the result of psychological processes such as rational analysis or emotional responsiveness, or psychological factors such as values, personal norms, or attitudes?

**Bodily** – is the behaviour significantly constrained, enabled or affected by the body or physical activity?

**Technological** – does the behaviour depend on or involve interaction with physical hardware, devices or appliances?

**Institutional/Social** – is the behaviour shaped by ‘invisible’, institutional features of supply chains, businesses and markets, policies and laws, or by other social phenomena?

**Infrastructural/Environmental** – is the behaviour shaped by ‘visible’, physical features of supply chains, infrastructures, or aspects of the broader built and natural environments?



## **Durability:**

### **How does the behaviour relate to time?**

**One-off** – is the behaviour only undertaken once, or so infrequently that it can be viewed as an isolated occurrence?

**Repeated** – is the behaviour repeated regularly so that it might be considered 'habitual'?

**Dependent** – can the behaviour continue only as long as other conditions remain in place?

**Enduring** – once carried out and completed, does the behaviour have consequences that persist, either through its own impacts or through related behaviours?

**Norm-Setting** – does the behaviour propagate over time, leading to more of the same behaviour either by the same actor or by new, different actors?

## **Scope:**

### **How does the behaviour inter-relate with other behaviours?**

**Discrete** – does the behaviour have limited or no interaction with, or impact on, other behaviours?

**Inter-related** – is the behaviour closely linked to one or more other behaviours, either as an activity, or in terms of its context or meaning?

**Bundled** – is the behaviour part of a tightly-woven package of behaviours that are difficult to separate out?

**Structuring** – does carrying out the behaviour strongly enable or constrain which behaviours are possible in the future?

**Pervasive** – is the behaviour a characteristic or representative feature of the broader life or lifestyle of its actor?