Why aren’t people rational?
Unpicking irrationality in the context of climate change

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About this research

• All authors part of the Centre for Design’s ‘Beyond Behaviour Change’ research group at RMIT University in Melbourne, Australia
• We undertake social research regarding the dynamics of change which provides an alternative to existing psychology, marketing and economic disciplinary approaches
• We focus on environmental issues (climate change, water, energy, transport etc.)
• Our approach views individuals as participants in shared social practices (such as driving, showering, heating, cooling, laundering, bike riding etc.)
  – Takes focus away from behaviours of individuals and shifts it to their participation in shared activities
  – Takes issue with concepts of ‘rational’ and ‘irrational’ behaviour
Targeting the rational householder

Three studies

- **SMART METERS**: 3-year study (2006-09) of Australian smart metering trials designed to encourage individuals to weigh up the costs and benefits of their consumption through information feedback and pricing schemes (Strengers 2009)
- **CARBON NEUTRAL COMMUNITIES**: 3-year study (2007-10) investigating effectiveness of over 100 Australian behaviour change programs (Moloney et al. 2009)
- **GREEN RENOVATORS**: 2-year study (2008-09) with householders undertaking ‘green’ renovations (Maller & Horne 2011)

- All projects involved interview-based data collection conducted in-situ with Australian householders.
- All focused on energy and water consumption
- All studies found evidence of householders acting ‘irrationally’
- 5 mediating factors help explain this irrationality
1. Making sense of ‘rational’ information

- Smart meters and other forms of consumption feedback provide information and data on the cost and units of energy/ water consumed

- Disconnect between the ‘rational’ language of resource management (kilowatts, litres & dollars) and everyday life.

- Misunderstandings/ translation difficulties:
  - ‘…it says you’ve used so many kilowattevers’

- Irrelevance to everyday practices:
  - ‘It might be nice to know that the toaster is this and the kettle is this, but I don’t know what I’m supposed to do about it — have cold tea?’

2. Social and cultural considerations

- Rational decision-making doesn’t take account of social and cultural considerations such as:
  - Increased heating/ cooling for guests
  - Incorporation of less energy-efficient open-plan designs that merge eating, living and outdoor areas
  - Large kitchens with multiple appliances such as fridges and dishwashers to accommodate ‘social peak loading’ when entertaining (Wilhite 1999)
3. Practical knowledge

- Rational strategies do not provide practical information and methods on how to respond to price signals, consumption data or education, such as:
  - How to shower in 3 or 4 minutes instead of 20 (or how to bathe in other less water-intensive ways)
  - How to produce clean and hygienic laundry without heat (i.e. ‘wash in cold water’ campaigns)
- Householders responses to rational information mediated by existing practical know-how, experiences, and social norms

4. Environmental promotion

- Changes are framed by current understandings of what it means to ‘be green’. In response, householders focus on the heavily promoted ‘low hanging fruit’ and ignore bigger issues.
- Householders do not normally focus on the actions likely to achieve the greatest environmental sustainability in response to rational information.

- **Low hanging fruit/ visible consumption:**
  - Shorter showers
  - Using cold water in the washing machine
  - Turning off lights
  - Turning off standby power
  - Install low-flow showerheads and energy efficient light bulbs’ appliances
  - Install solar panels and water tanks

- **Hidden consumption:**
  - Physical size of house
  - Draught-proofing
  - Number and size of appliances and furniture
  - Consumption of high-energy and water foods
5. Material scripting

- Rational decision-making overlooks mediating role of objects, technologies and infrastructures

Material objects contain ‘scripts’ that counteract rational information (Akrich 1992):

- Default hot water settings on the washing machine counteract cold water campaigns (Jelsma 2006)
- Thermostat controls script ‘normal’ temperature ranges for homes
- Invisible flows of water through a shower counteract messages to save water (Sofoulis 2005)
- ‘out of site out of mind’ power stations, water supply systems and waste facilities counteract campaigns to make these systems visible (Sofoulis 2005)
Why aren’t people rational?

<table>
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<th>Programs/ rational strategy</th>
<th>Assumed rational response</th>
<th>Mediating factors</th>
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<td>Cost-effective and resource-efficient decision making</td>
<td>Misinterpretation misunderstanding of information/ data</td>
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<td>Rebate schemes, green loan programs, green renovators</td>
<td>Renovators will improve efficiency of homes to save money/ resources</td>
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<td>Four-minute shower campaigns; cold water wash campaigns</td>
<td>People will take shorter showers/ wash laundry in cold to save resources/ money</td>
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<td>Green home programs and campaigns</td>
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<td>Heating/ cooling thermostat campaigns</td>
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<td>Heating/ cooling appliances ‘script’ particular temperature ranges</td>
<td>People continue to set their thermostat higher/ lower than necessary</td>
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Does this mean people are irrational?

• Notions of rational and irrational behaviour can create an unhelpful and false dichotomy in our understanding of human action
• Framing behaviours as ‘irrational’ implies that they are uncontrollable, unpredictable and difficult to manage
• Irrational behaviour placed in ‘too hard basket’
• The rational/ irrational dichotomy creates missing links and gaps

The elephant in the room

• ‘Normal’ consumption and practices
• What we do, why we do it and how we do it
• Expectations and aspirations change
Why aren't people rational?

Expectations and aspirations are changing…

Practices are always changing

- Showering once a day only became common in last 80-100 years (Davidson 2008).
- Clothes washing has become more frequent over last 50-100 years (Slob & Verbeek 2006)
- Air-conditioning usage grown from virtually nothing in the last 40 years (McCann 2006). Nearly 70% of Australian households now have one or more AC (DEWHA 2008)
Why aren't people rational?

Behaviour change vs. practice change

Efficient technologies and supply systems

New technologies; increased supply

Encouraging rational & efficient behaviour

New practices; new expectations and aspirations

Alternative framing of human action: people as participants in social practices

Skills and competencies about how we do something

Practical knowledge

Rules

Common understandings

Means and understandings about what we ought to do

Things that we use and/or systems that enable practice (i.a. stuff)

Material infrastructure

Adapted from Strengers, 2009
Why aren’t people rational?

The elements of a practice: showering

- How we wash and clean the body
- Practical knowledge
- Material infrastructure
- Common understandings
- Roles
- How we ought to look/smell/enjoy etc.
- Regularity, frequency and duration required

Piped water and sewage systems, showers, baths, towels, soap, sponges, shampoo

Benefits of this approach

- Irrationality explained through an understanding of the practice and can therefore be identified and addressed
- Strategies can extend beyond rational models of change by:
  - Recognising that practices are only partially informed by rational decision-making processes
  - Providing alternative forms of practical knowledge
  - Modifying/changing the material infrastructure of practices
  - Introducing new rules
  - Attempting to change or work within existing common understandings (social and cultural considerations)
  - Using social networks to encourage the circulation of new practices
References

- Strengers, Y. (2009). Bridging the divide between resource management and everyday life: smart metering, comfort and cleanliness. Unpublished PhD, RMIT University, Melbourne, VIC.

Thankyou

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