

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

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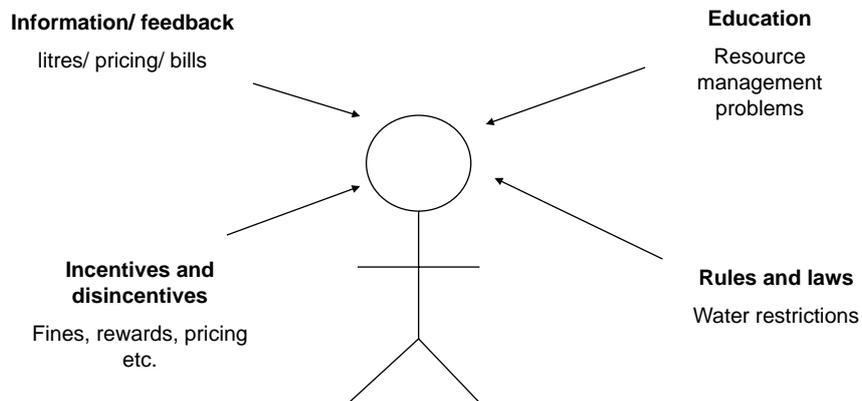
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## About this research

- 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)
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- 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.
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|---|--|
| <ul style="list-style-type: none"><li>• <b>Low hanging fruit/ visible consumption:</b><ul style="list-style-type: none"><li>– Shorter showers</li><li>– Using cold water in the washing machine</li><li>– Turning off lights</li><li>– Turning off standby power</li><li>– Install low-flow showerheads and energy efficient light bulbs/ appliances</li><li>– Install solar panels and water tanks</li></ul></li></ul> | <ul style="list-style-type: none"><li>• <b>Hidden consumption:</b><ul style="list-style-type: none"><li>– Physical size of house</li><li>– Draught-proofing</li><li>– Number and size of appliances and furniture</li><li>– Consumption of high-energy and water foods</li></ul></li></ul> |
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## 5. Material scripting

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



Technology efficiency viewed as a linear, causal process of change

## 5. Material scripting

- 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?

Programs/ rational strategy	Assumed rational response	Mediating factors	'Irrational' responses
Information provision; consumption feedback	Cost-effective and resource-efficient decision making	Misinterpretation misunderstanding of information/ data	Information/ feedback ignored or not used rationally
Rebate schemes, green loan programs, green renovators	Renovators will improve efficiency of homes to save money/ resources	Social and cultural aspirations for larger homes and open plan living	Renovators make visible green changes whilst building larger, open-plan homes
Four-minute shower campaigns; cold water wash campaigns	People will take shorter showers/ wash laundry in cold to save resources/ money	Householders lack practical knowledge on how to make these changes	People continue to take long showers/ wash laundry in warm or hot water
Green home programs and campaigns	People will make easy, cost-efficient and resource-efficient decisions	Highlighting small visible green actions hides less visible, higher-impact actions	People buy resource-efficient appliances but install more of them
Heating/ cooling thermostat campaigns	People will turn down their thermostat to save energy/ money	Heating/ cooling appliances 'script' particular temperature ranges	People continue to set their thermostat higher/ lower than necessary

## 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**



## Expectations and aspirations are changing...

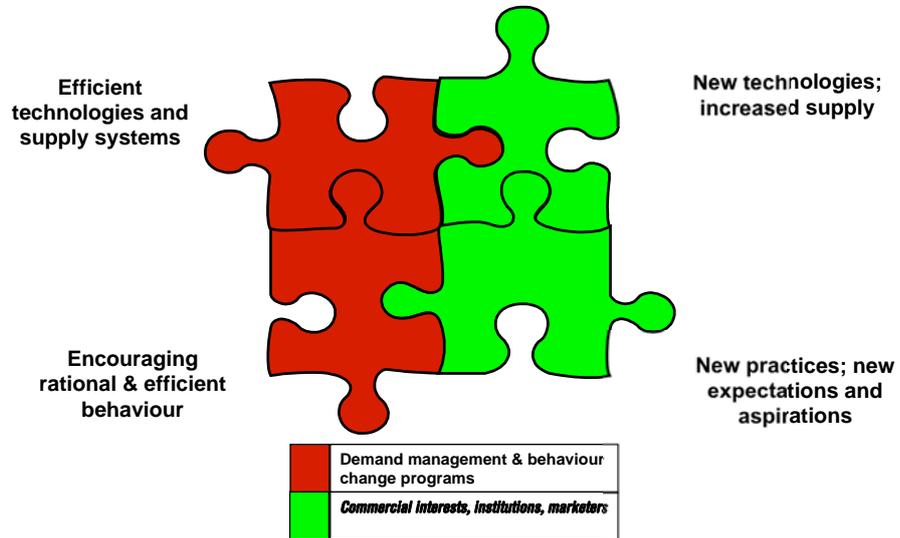


## Practices are always changing

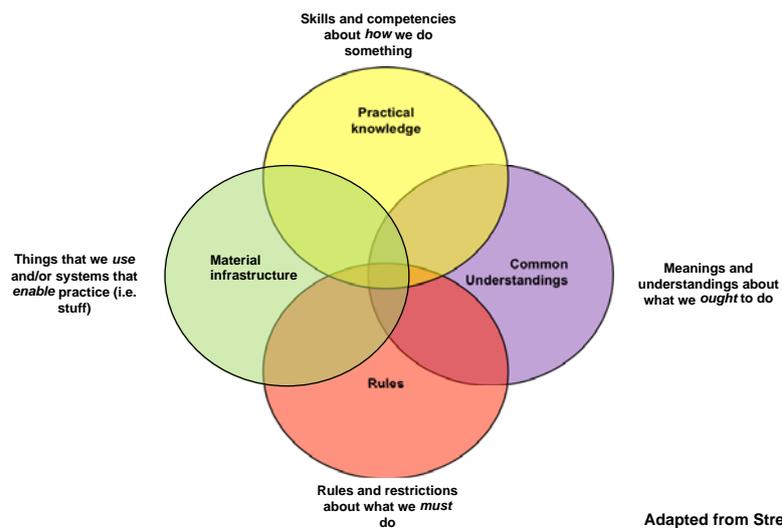
- Showering once a day only became common in last 80-100 years (Davidson 2008).
- Clothes washing has become more frequent over last 50-100 years (Slob & Verbeek 2006)
- Air-conditioning usage grown from virtually nothing in the last 40 years (McCann 2006). Nearly 70% of Australian households now have one or more AC (DEWHA 2008)



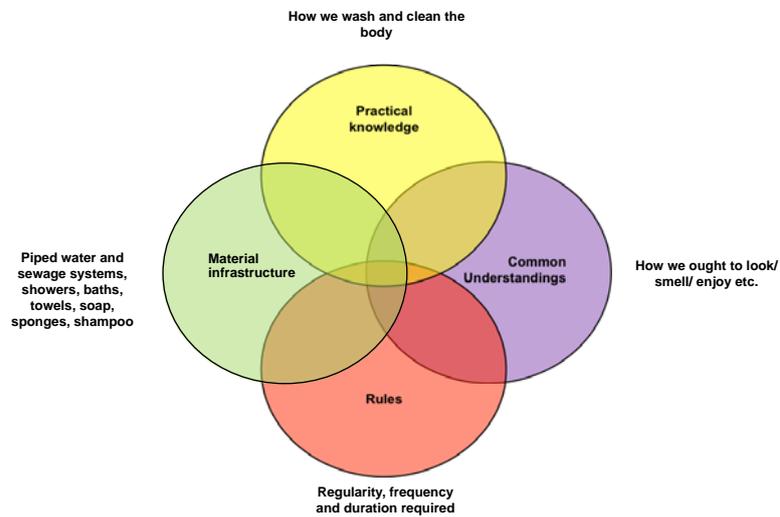
## Behaviour change vs. practice change



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



## The elements of a practice: showering



## 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

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## Thankyou

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