

# The role of non-numeric feedback in reducing domestic energy consumption: Lessons from Freiburg and Besançon

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# Presentation Outline

1. Introduction
2. Objectives and questions
3. Conceptual and analytical framework
4. Methodology
5. Primary findings
6. Conclusions

# 1. Introduction


- The non-numeric Energy feedback (e.g., advice from friends, relatives and home audits)
- Energy-consuming practices
  - Neo-institutional theory
  - Practice theory
- Freiburg and Besançon

## 2. Objectives and questions

To get more insight into the energy-consuming practices the households perform in their everyday life:

- If and how non-numeric feedback mechanisms can increase awareness and knowledge of household's energy consumption;
- the contribution of the neo-institutional theory and practice theory in understanding non-numeric energy-feedback mechanisms; and
- how far non-numeric feedback could be extended to and applied in a variety of different contexts

### 3. Conceptual and analytical framework

- Institutions  Practices ?
- The neo-institutional theory (cf. DiMaggio, 1988; Powell & DiMaggio, 1991; Phillips et al., 2004; Garud et al., 2007; Scott, 2008)
- ‘institutions’ are “comprised of regulative, normative and cultural-cognitive elements that, together with associated activities and resources, provide stability and meaning to social life.” (Scott; 2008, p. 48)
- these elements interact with each other in a particular way to maintain or change the existing energy-consuming practices.


- Practice theory (cf. Shove & Walker, 2010; Gram-hanssen, 2014;)
- Collective structures of practices'
- Lounsbury & Crumley (2007, p.995) define 'practices' as  
“activity patterns across actors that are infused with broader meaning and provide tools for ordering social life and activity”.

## **Elements of energy-consuming practices (Gram-hanssen (2014))**

1. Embodied habits (childhood and family upbringing)
2. Engagements (collectively shaped )
3. Technologies (energy performance of building envelopes)
4. Institutionalised knowledge
  - Information campaigns
  - Energy efficiency rating systems
  - Home audits
  - Comparative feedback (competition, social comparison, and group pressure)

# 4. Methodology

Comparative case study (cf. Yin, 2009, 2003; Merriam, 2009)

- in Freiburg  200 Familien aktiv fürs Klima
- in Besançon  FAMILLES ACTIVES  
POUR LE CLIMAT
- **space heating practices**
- Desk study, local journals, Official documents / government publications, Semi-structured interviews



## 5. Primary findings

- “Familles actives pour le climat” in Besançon
- “200 Familien aktiv fürs Klima” in Freiburg
- ‘comparative feedback’
- Freiburg initiated the program ‘Zuhause A+++’, in which all households have received free energy-saving home audits and advice



## 6. Conclusions /lessons learned

- Phenomenon of household energy consumption very complex
- Neo-institutional theory + Practice theory
- Unpack and categorise the practices
- Regulative institutions
- Energy-consuming practices are highly influenced by both personal and social values