# Why do most of us consume as much as we do?

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AALBORG UNIVERSITY

## Denmark is not green!

 ... even we for long have had rather green ambitions related to energy and climate



**Country Overshoot Days 2022** 

When would Earth Overshoot Day land if the world's population lived like...





For a full list of countries, visit overshootday.org/country-overshoot-days. \*France Overshoot Day updated April 20, 2022 based on nowcasted data. See overshootday.org/france. Source: National Footprint and Biocapacity Accounts, 2022 Edition data.footprintnetwork.org

Global Footprint Network

Advancing the Science of Sustainability

### What will I discuss:

- In a global perspective it is the consumption from the wealthiest people that is the problem
- Denmark is a quite egalitarian society. My claim is that in DK it is the consumption from the majority of people that is the problem. Backed by (Ivanova et al., 2017; Jack and Ivanova, 2021)
- Still, we have income difference in Denmark, so what is the relation between affluence and inequality related to the green transition?
- And how do this impact the green transitions and changing practices towards lower consumption?





# Energy for heating buildings...

- ..is a major share of DK energy consumption
- A tight and efficient policy for 30 years have resulted in more efficient buildings - but not in reduced energy consumption

### Energy consumption for space heating in households

(Climate adjusted)



Two reasons : - still more heated square meters - still higher indoor temperatures

Is this just the rich people?

# Comparing calculated and actual consumption

- 'Over-consumption' in new efficient homes and 'under-consumption' in old inefficient homes
- Materiality impact comfort
  practices and norms





# Over- and under-consumption related to income

- Both rich and poor over-consume in new efficient homes. The rich more than the poor
- Both rich and poor under-consume in old inefficient homes. The poor more than the rich
- Comfort practices and norms are shaped by both materiality and (forms of) capital



Less than 300,000 to 400,000 to 500,000 to 600,000 to 700,000 to 800,000 DKK 300,000 DKK 499,999 DKK 599,999 DKK 699,999 DKK 799,999 DKK or higher

(Hansen and Gram-Hanssen, 2023)

■ ABC (N=130,687) ■ EFG (N=66,234)

# Why do we heat still more square meters?

- Not just the rich people living in big homes
- Mismatch between demography and available housing
- 60% of single-family housing occupied by 1 or 2 people
- 30-40 years old has 40 m<sup>2</sup>/per
  80-90 years old has 80 m<sup>2</sup>/per
- Danes stay in their house when children has left, and the husband dies









Higher comfort temperatures and more rooms heated – what happened during the energy crisis?

## Studying energy crisis

- Energy poverty in Denmark: Not previously a big problem but with this winter's energy crisis?
- Representative survey in four EU-countries. Ad hoc work coordinated by Melanie Jaeger-Erben at BTU, with contributions from NL, DK, NO.
- Interviews 30 households found through different channels. Looking for people being economically stressed by the crisis or being interested by the green transition

Analysis not really started yet – so only potential results





# **COST OF ENERGY**

#### **Reaction to increased energy costs**

				(0000 0)	= 10p 2 Disa	gree
I am trying to save energy as much as possible	71%				19%	9%
I try to save other expenses to cover rising energy costs		54%		23%	23%	
I started to feel high financial stress	36%	)	24%		40%	
The increased rates are no problem for me	31%		27%		42%	
I can't afford to maintain my comfort standard any longer	23%	25	%	53	3%	
I think about moving house	18%	16%		66%		
I incur debts to pay for the higher costs	16% 1	1%		73%		
l applied or will apply for financial support (e.g. housing or energy subsidy)	16%	17%		67%		

Q18. What was your reaction to increased energy costs?

DK: n=914 (Experienced a rise in water, electricity, space heating, water heating costs)

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(Reference, not yet published, from Disrupted routines project: Prof. Dr. Melanie Jaeger-Erben et all)



PAGE

1 1

Top 2 Disagree

Top 2 Agree

■ Middle (code 3)

# **ENERGY SAVING**

#### Actions made to save energy costs

	■ Top 2 (very) often	Bottom 3	■ does not apply		
ght 📃	64%		34% 19		
lay 🗖	60%		39%		
ore	54%		44%		
an	47%		49%		
ore 📃	46%		49%	5%	
nes 📃	45%		35%	20%	
es 📃	45%		52%	3%	
ure 📃	44%		49%		
en 📃	44%		52%		
ten 📃	41%		54%	6%	
rm 📃	41%		54%	5%	
rgy 📃	36%		61%		
ies 📃	36%		59%	6%	
ore	29%	29%	42%		
ad	28%	62%		10%	
ntly	27%	7	70%		
lier	26%	69	5%		
me 📃	20%	73%	7%		
tor	17%	78%	6%		
)	15%	71%		14%	

Use fewer lamps/ electric sources of lig reduce the times I use a light in a d showering less or shorter than befo turn off heating in particular rooms by the hour/day more often th turn off heating in the house by the hour/day more often than befo I use the dryer less often to dry cloth I have unplugged applianc I wash clothes with lower temperatu I use some electrical appliances less oft wash clothes less off I use alternative means to keep me wa I cook meals that require less ener replaced some electrical applicances with more energy efficient on take fewer or no bathes than before I have installed an economy shower he I cook less frequen I go to bed earl I spend more time in heated spaces outside hor I increased the temperature in the refrigera Staying less at home (and more time at work, school,.

Q29. What did you do to save energy costs or costs in general? Please list only activities that you have not done before the rise in energy prices.

DK: n=829 (Saving energy as much as possible (code 3-5))

P A G E 1 2

(Reference, not yet published, from Disrupted routines project: Prof. Dr. Melanie Jaeger-Erben et all)

# Some first qualitative notes on changing practices

- Reducing temperatures and amount of heated rooms
- Both positive and negative effects on everyday life
  - Shame and distress for some; children and health issues
  - Pride, competition and inventiveness in reducing energy and maybe educating children
- Caring (for oneself or others) versus saving energy



Changing practices towards lower consumption – materiality and meanings

## New norms of the good life after the crisis?

- We all uses to much energy in Denmark both rich and poor
- Energy efficiency and technological solutions have led to raising norms of comfort and ideas of the good life as a resource intensive life
- Energy crisis showed that reductions can be made quite fast: Depending on materiality and resources in a stressful or an agreeable way
- It is about developing new norms of what the good life is
  - a life which can be experienced as positive even it is less resource intensive.
  - But may also feel like scarcity and poverty if you have no other choice and compare yourself to others





## **Part of the eCAPE project**

eCAPE: New Energy Consumer roles and smart technologies – Actors, Practices and Equality

An ERC-grant dedicated to develop new theory within theories of practice related to energy transitions

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