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CAN WE NUDGE TO NET ZERO?

Lucia A. Reisch

El-Erian Professor of Behavioural Economics and Policy
University of Cambridge, UK

Energy and Policy Research Group Spring Seminar
“**Energy policy: From crisis to net zero**”

May 4th 2023, Robinson College, Cambridge

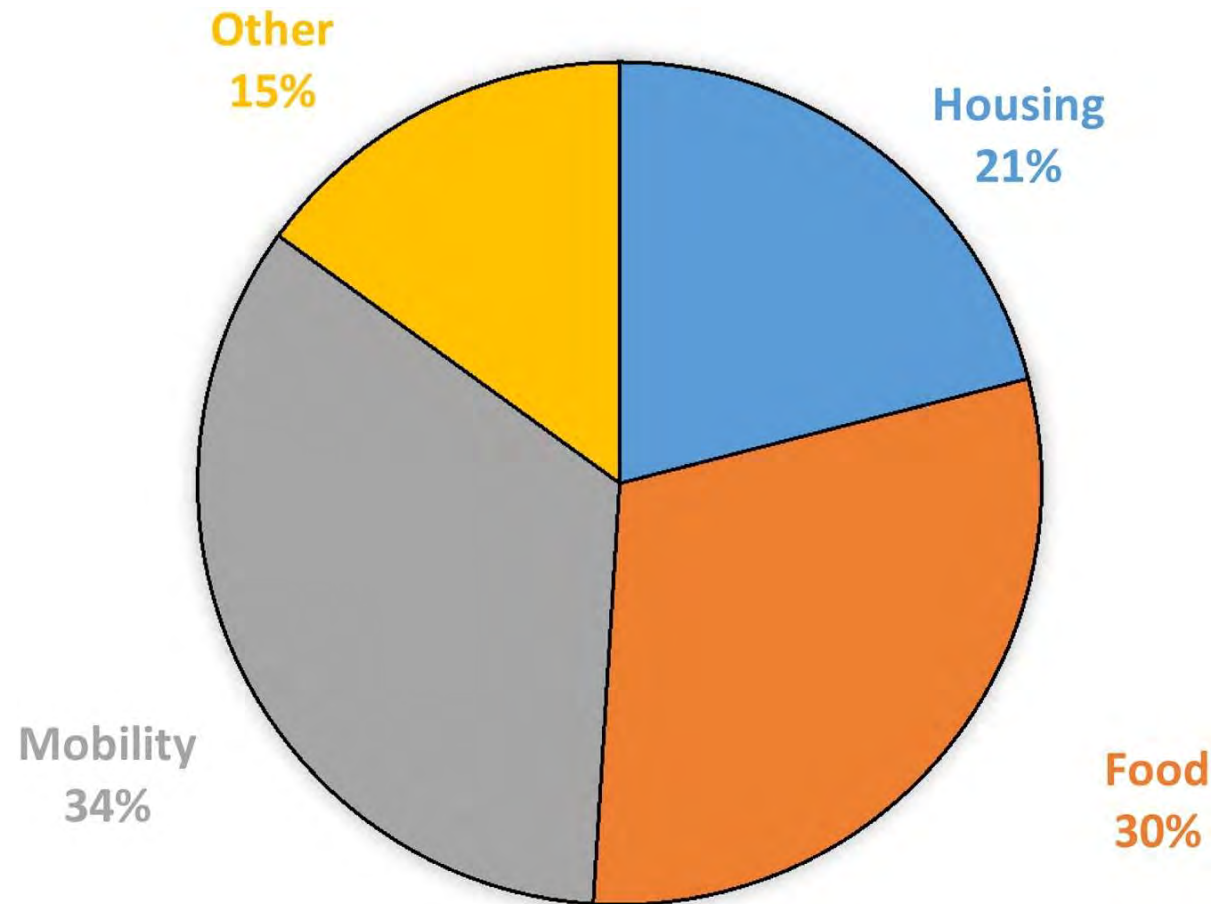
The demand side dilemma

Households:
responsible for 72%
of global GHG
emissions

Source: IPCC AR 6 (2022).

Carbon footprint
assessments
(CO₂ equivalents)

Source: Dubois et al. (2019).





Once we have weaned off fossil fuels, it will be food that has the largest climate and biodiversity impact.



Dasgupta Review

Demand-side policies

- **Regulation**
 - bans, mandates, product and process standards, guarantees, soft law
- **Financial (dis)incentives**
 - taxes (carbon taxes, VAT), subsidies (climate bonus); cap & trade schemes
- **Public procurement**
 - preferred vendor, market development
- **Choice architecture & behavioural insights („nudges“)**
- **Co-production and empowerment**
 - innovation agencies, living labs, participation
- **Disclosure and information**
 - deshrouding (labels), observatories, GHG inventories
- **Capacity building**
 - education & advice; consumer organization



Chapter 5: Demand, services and social aspects of mitigation

Coordinating Lead Authors: Felix Creutzig (Germany), Joyashree Roy (India/Thailand)

Lead Authors: Patrick Devine-Wright (UK/Ireland), Julio Diaz-José (Mexico), Frank Geels (UK/The Netherlands), Arnulf Grubler (Austria), Nadia Maïzi (France/Algeria), Eric Masanet (USA), Yacob Mulugetta (UK/Ethiopia), Daisy Onyige Chioma (Nigeria), Patricia E. Perkins (Canada), Alessandro Sanches Pereira (Brazil), Elke Ursula Weber (USA)

Contributing Authors: Jordona Composto (USA), Anteneh Dagnachew (The Netherlands/Ethiopia), Nandini Das (India), Robert Frank (USA), Bipashyee Ghosh (India/UK), Niko Heeren (Switzerland), Linus Mattauch (UK/Germany), Josephine Mylan (UK), Leila Niamir (Germany/Iran), Gregory Nemet (USA), Mani Nepal (Nepal), Nick Pidgeon (UK), Narasimha Rao (USA), Lucia Reisch (Denmark), Julia Steinberger (Switzerland/UK), Cass Sunstein (USA), Linda Steg (The Netherlands), Charlie Wilson (UK), Caroline Zimm (Austria)

Review Editors: Nicholas Eyre (UK), Can Wang (China)

Chapter Scientists: Nandini Das (India), Leila Niamir (Germany/Iran)

Date of Draft:

12/11/2021

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The panel concludes that behavioural interventions can increase the efficacy of pricing strategies, mandates, subsidies and taxes.



Intergovernmental Panel on Climate Change (IPCC), AR 6

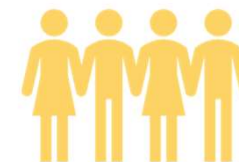
The essence of “behaviourally informed policy”



bounded rationality
behavioural capability



behavioural lens
understand & predict
multiple theories



empirical & experimental
human-centred
participative

Demand Side Net Zero Strategies

1. BETTER: efficiency, innovation
2. LESS: sufficiency, moderation
3. TOGETHER: collaborative consumption, sharing, avoiding peaks
4. SMARTER: new materials, bioeconomy
5. CIRCULAR: circular economy, repair, zero waste
6. SELF: prosumerism, own-production

Factor in the behavioural factor!

What makes acting on values so difficult?

Behavioural barriers

- **Present bias and hyperbolic discounting** – “future generations” are far away
- **Loss aversion** – people are more negative about anticipated losses than they are positive about anticipated gains; politicians try to push losses into the future
- **Missing immediate feedback** on consequences – long term, shrouded, not salient
- **Consumer confusion** – it is puzzle!
- **Misinformation and disinformation** re most climate-friendly choices, climate attribution (?)
- **Free riding and NIMBY** as regards provision of public goods – individual and national level
- **No specific villain, diffusion of responsibility** – countless faceless people colluding
- Subjective **cost-benefit estimation** is often against it (anything but FEAST)
- ...

My personal living lab



- ☹ 14 months of planning - plus 22 months of execution
- ☹ Ca. 2000 eMails over 3 years
- ☹ 12 visits to the municipal “Climate Office”
- ☹ Complicated (and changing) proposals for (municipal, regional, and federal) Energy Efficiency Funds
- ☹ Very complicated and overly complex application forms
- ☹ Overbooked energy counsellors, climate finance and building permit offices
- ☹ Challenging to get bank loans for over 55-year-olds
- ☹ Lack of skilled heating engineers
- ☹ Shortage of highly efficient heat pumps, solar panels, and insulation material
- ☹ NIMBYism and complaining neighbours
- ☹ (plus: inflation, material shortages, COVID)

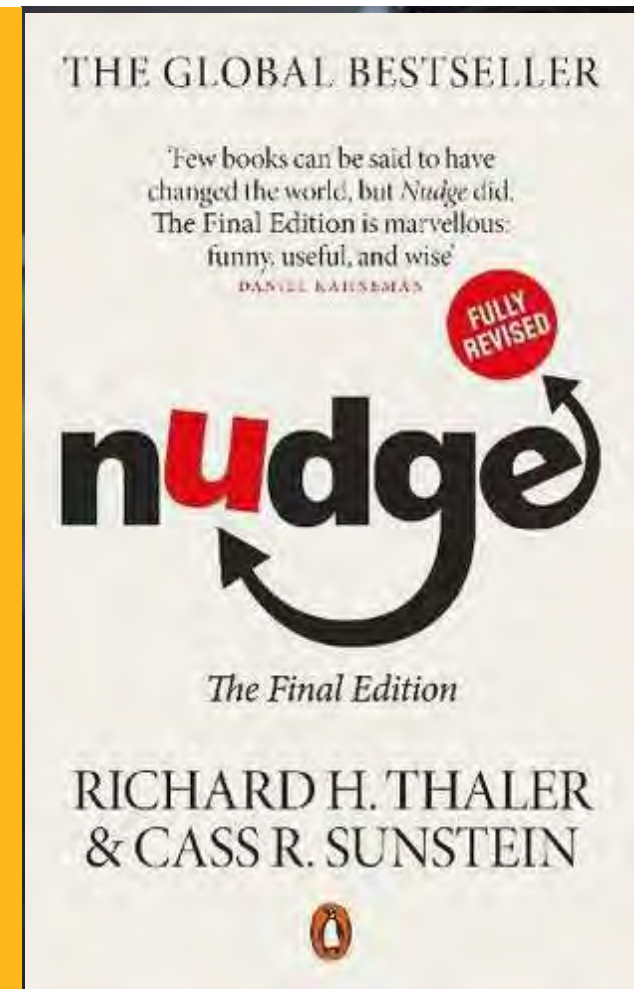


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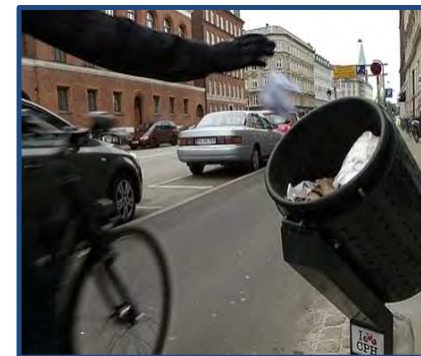
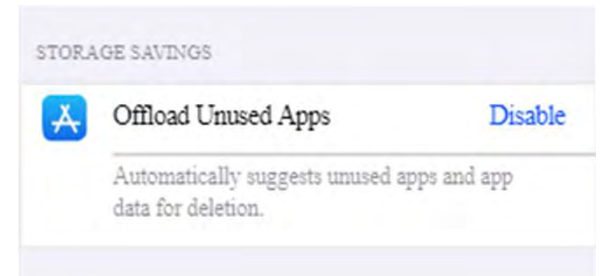
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A **nudge** is “any aspect of the **choice architecture** that alters people’s behaviour in a predictable way without forbidding any options or significantly changing their economic incentives.

To count as a mere nudge, the intervention must be easy and cheap to avoid.” (p. 8)



- Defaults
- TIPPME (physical micro-environments)
- Priming and framing
- Increase ease of use (FEAST)
- Simplification
- „Sludge“ audits (time gains)
- Use of social norms (dynamic)
- Disclosure and warnings (visuals)
- Self-binding tools („snudges“)
- Timely reminders (with „maps“)
- Feedback (personalized)
- Non-financial benefits





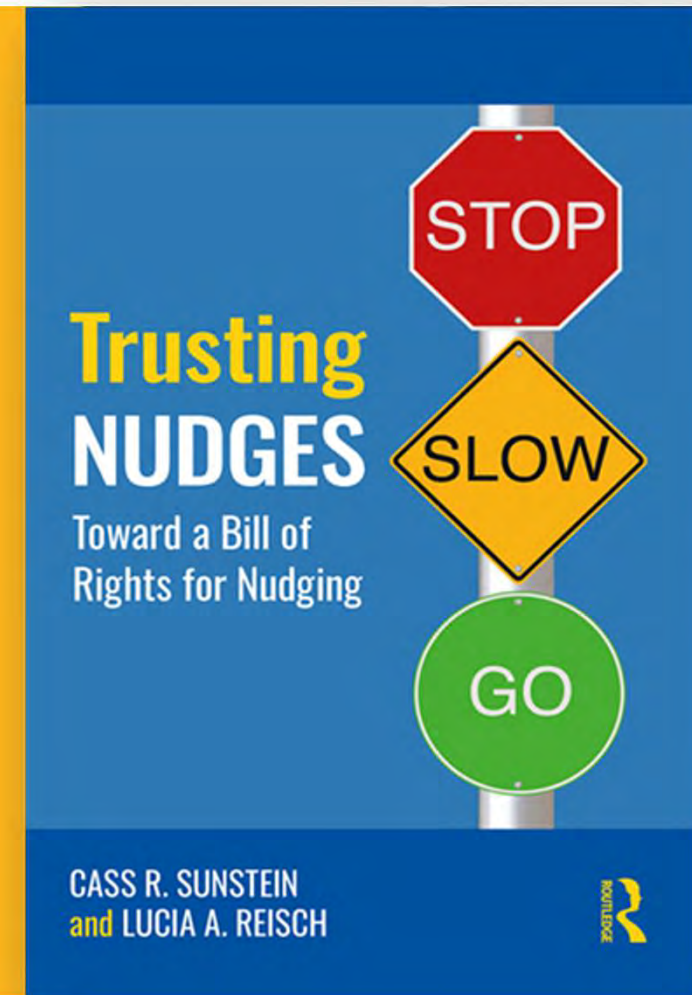
Absence of evidence is not
evidence of absence



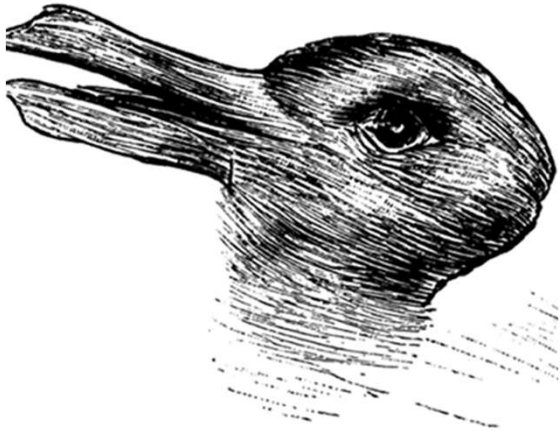
Carl Sagan

Good governance key for ethics, effectiveness, acceptance

- Welfare enhancing
- Benefits larger than costs, side effects included (distributional, rebound, crowding out)
- Autonomy and freedom of choice preserving
- Open to public debate and scrutiny
- Transparent stepwise processes, review & adapt
- Internal trusted promoter(s) are key



Should structural solutions be preferred?



1. Structural changes tend to be more effective and long-lasting – but depend on accepting more **paternalistic policies**; processes are slow, and coalitions are vulnerable.
2. No single policy or policy approach should be expected to solve one major societal problem - progress requires **packages**.
3. Some structures are shallow; some are deep. Structural changes are not always “big”; many small behavioural changes *can* be impactful.
4. Weak structural policies (e.g., laws with loopholes) can even be a major **barrier** to transformation.
5. Structural and individual approaches are **not antithetical**, neither in theory nor in practice. They are interdependent and mutually supporting.
(Often, it is about perspectives and disciplines).

So – can we nudge to net zero?



1. Behavioural insights-based instruments can be very effective, sometimes more than harder instruments. There are only a few universal „laws“
 - **test, learn, adapt, and share the results**
2. Nudges do little harm, can be adapted low-cost. Get consumers in the driver’s seat. Useful to trigger change (not necessarily to sustain it)
 - **complementary use is strongly recommended; low-hanging fruits**
3. Behavioural approaches *alone* are easily overcompensated by growth (rebound effect)
 - **individual and structural level transformation needed**
4. Behavioural scientists have played little role in some major (technical) science-policy interfaces (e.g., the IPCC, IEA, national climate packages)
 - **include behavioural science and the behavioural lens**
5. „ASAP tools“ responding to the urgency and wickedness of climate change
 - **no time for ideological think bans, „all hands on deck“**



Thank you!

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Cambridge Judge Business School
University of Cambridge
25 Trumpington Street
Cambridge CB2 1QA, UK

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