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CENTRE FOR RESEARCH INTO
ENERGY DEMAND SOLUTIONS

Social and material cogs of the needs satisfier escalator

ECEE Summer Study

Panel 1.1 From energy services to need satisfaction

MONDAY JUNE 7TH 12:30 PM - 2:00 PM

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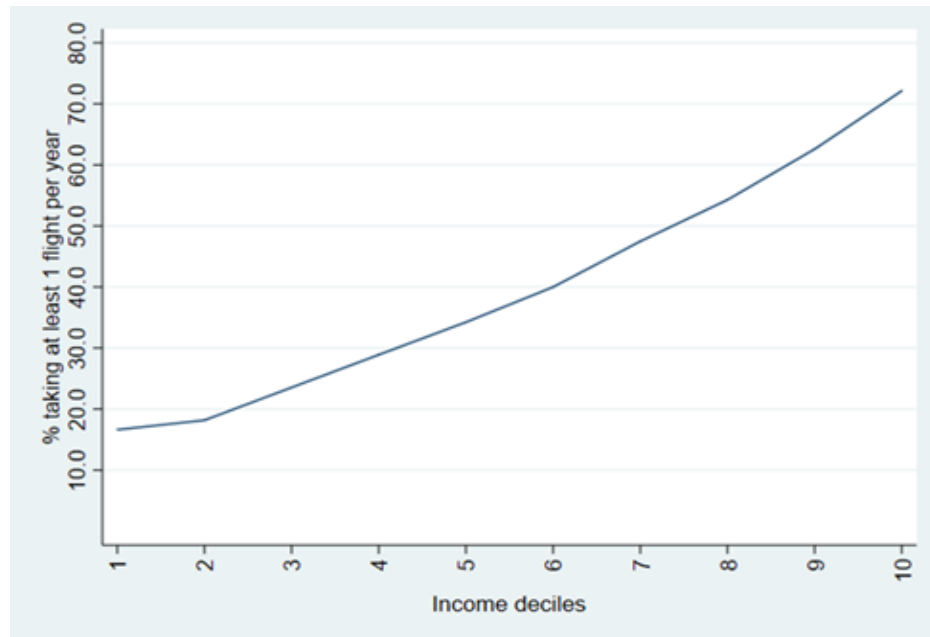
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CREDS themes

- Transport & mobility theme in CREDS (Centre for Research on Energy Demand Solutions)

- Research on 'high end/excess energy users' and Long Distance Travel.

- Explicitly normative, focused on 'reasonableness' of 'excess' energy consumption
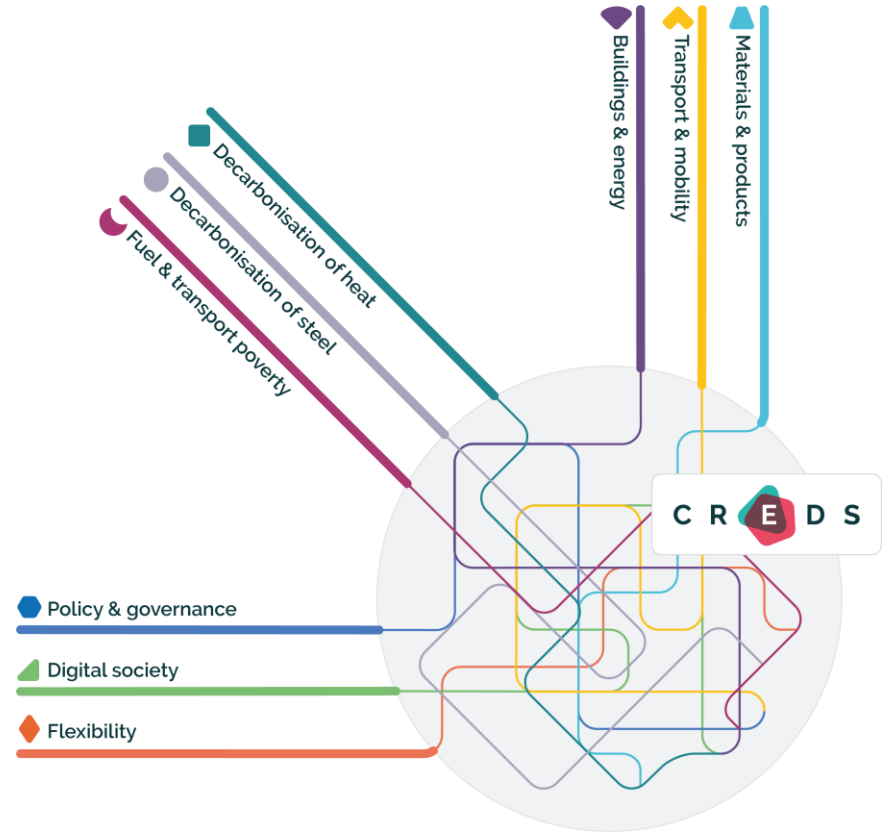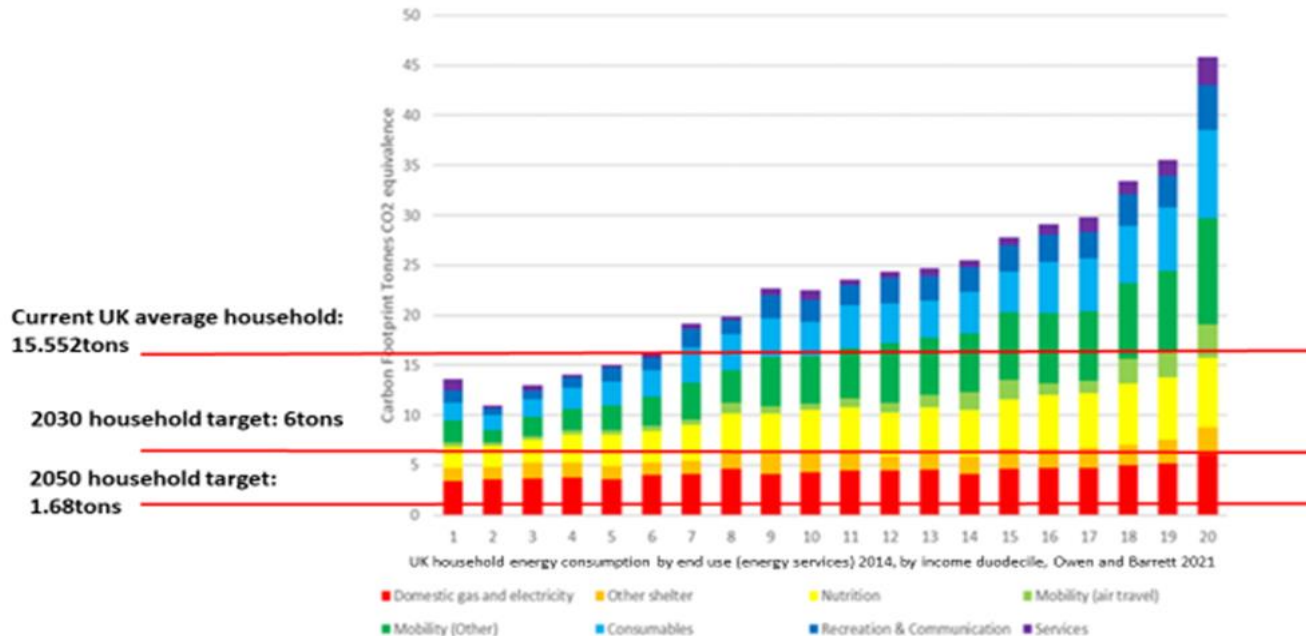
Inequalities in energy/carbon demanding activities

- 11% of the UK population accounts for nearly 44% of total car mileage ... These excess travellers are in disproportionally concentrated in richer households

- 52% of people do not fly in a given year, including 70% of households in the bottom income quintile, while 70% of households in the top quintile do.

# Needs for severe ('lifestyle') carbon footprint reductions

UK household energy consumption by end use (energy services) 2014, by income duodecile, Owen and Barrett 2021

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Potential definitions of 'excess' consumption

| Definition of 'excess' consumption		Issues
Quantitative	'Top X%'	Popularly understood. Arbitrary.
	Over an imposed 'cut-off' point	Can be linked to averages. Arbitrary.
	Outliers or extremes	Useful for targeting, statistically simple, but not significant reductions.
	'Above average'	Simple, but conceptually not fitting?
Qualitative	'Above what is necessary'	Based on definitions of minimum need, e.g. Minimum Income Standards. Consensual. Societally relative. Ratcheting. Dowler 2010
	'Wants not needs'	How to distinguish? Avoid harm over utility. Upper limit of 'generalisability over relevant population'? Brand-Correa et al. 2020; Mattioli 2016.
	'Unreasonably high'	Deliberative democracy. Habermas. Contextual/relative. Subjectivity.

Literature review and conceptual frameworks

- The most inclusive/multi-disciplinary approaches, including **Energy Cultures** (Stephenson et al. 2010, 2014) and **Understanding ECB** (Burger et al. 2015)

- Relevant to Needs approaches, we focussed on:

- **Orders of Needs Satisfiers** (Brand-Correa et al. 2020)
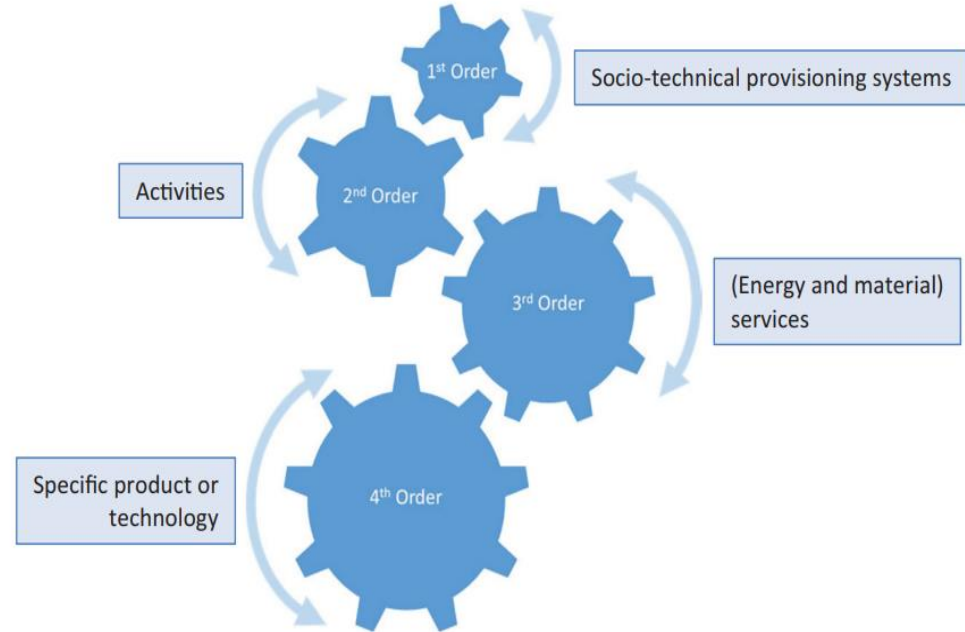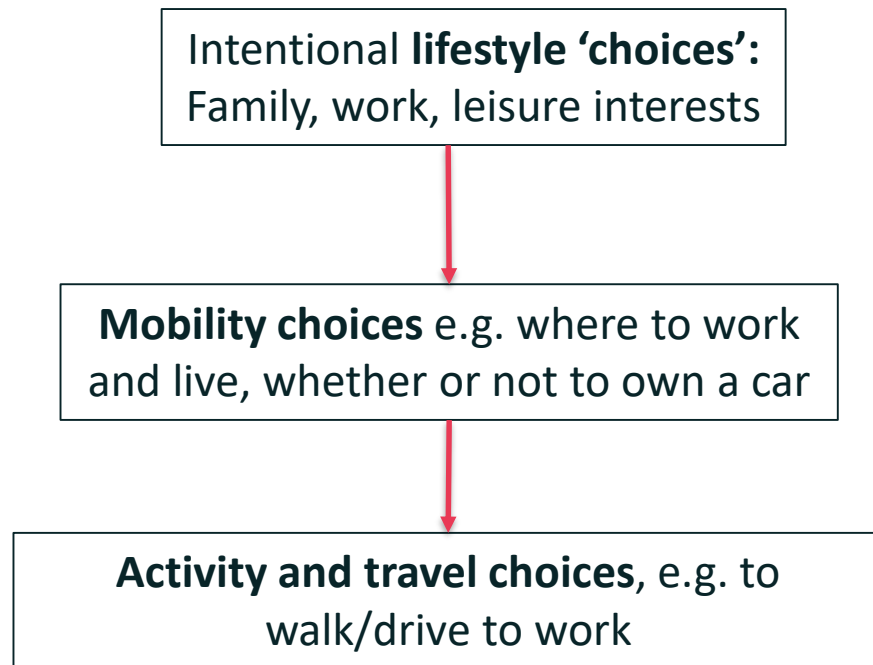
Literature review and conceptual frameworks

"'systems of provision' lock households into patterns of consumption that are largely outside the scope of individual choice." Gough (2017, 159)

"the higher the order of the satisfier at which you intervene the better, but the harder it is to change things" (Brand-Correa et al. 2020: 318)
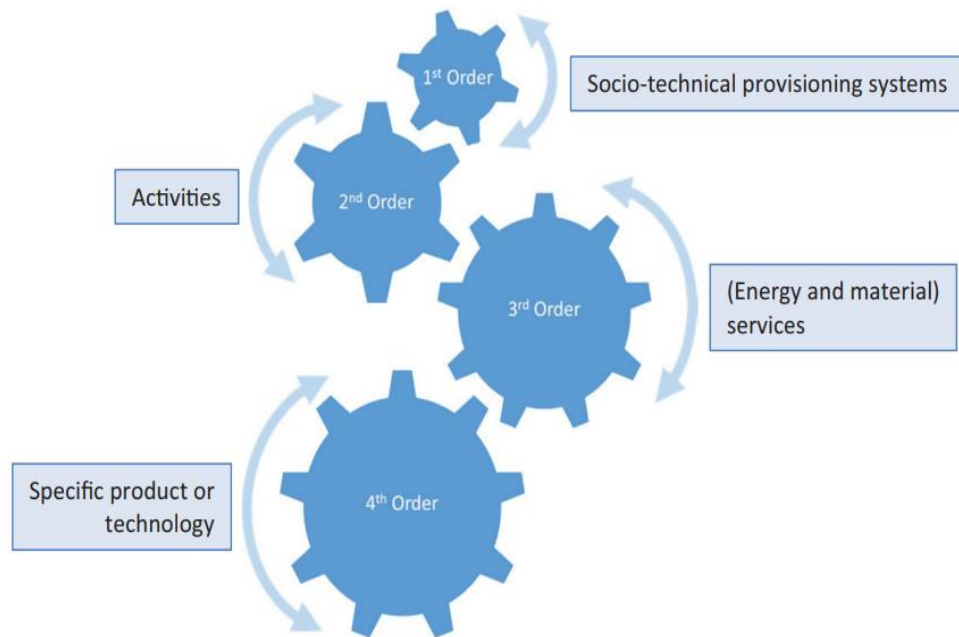
Literature review and conceptual frameworks

- **Hierarchies of choices** (Schwanen et al. 2012, Daramy-Williams et al. 2019.

- Travel as intentional *and* habitual: conditioned and chosen, path dependent

- *"Infrastructure ... has explanatory priority ... A mentalist conception of decisions, understates the importance of this issue"*

Intentional **lifestyle 'choices':** Family, work, leisure interests

Mobility choices e.g. where to work and live, whether or not to own a car

Activity and travel choices, e.g. to walk/drive to work

# Literature review and conceptual frameworks

- Human action is diverse: Different theoretical approaches required

- Multi-scalar or nested frameworks

- Framing, conditioning, structuration

- Dynamic or biographic aspects of sequential structuration.

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Literature review and conceptual frameworks

- Mattioli (2021) critiques sequential/lock-in/habitual accounts with regard to LDT

- Processes of habituation and socialization: Upbringings, families, normalization (Frändberg), mobility links.

- Mobility links:

  - Skills and dispositions

  - Social Networks

  - Practices

Methodology and sample

- 30 interviews with high domestic and travel energy consumption households.

- 20 high domestic energy using + mobility households: i.e. monthly bills over £120/mo and car mileage >10,000 p.a.

- Sub-sample:

  - 5 super high domestic energy: monthly energy bills over £160 per month)

  - 5 super high mobility households: ONE with >2 personal vehicles, ONE household with 3+ vehicles, ONE driving >15,000 miles p.a., TWO recruits who take 4+ return flights.
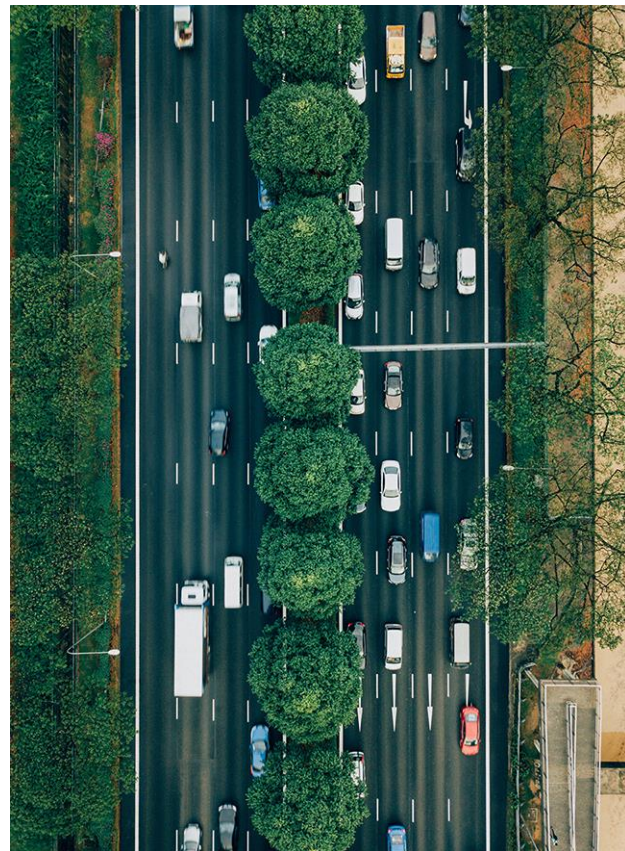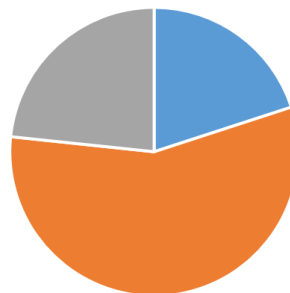
Sample

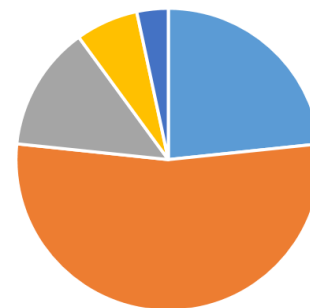| Sex	
Female	Male
13	17

Ethnicity
- White
- BAME

Age of interviewee
- 18-40
- 41-65
- 65+
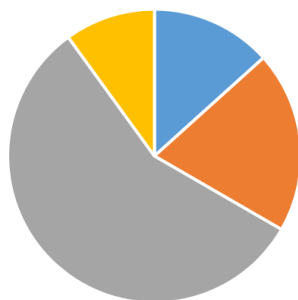
Cars in household
- 1
- 2
- 3
- 4
- 5 or more
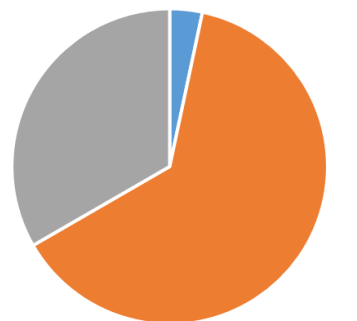
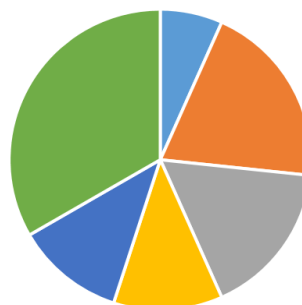**Annual car mileage**
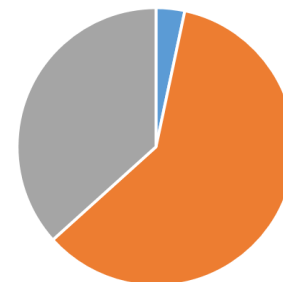- <10,000
- 10-15,000
- >15,000

Age of house
- Pre-1930
- 1930-1960
- 1960-2000
- Post-2000

Annual number of return flights
- 0
- 1
- 2
- 3
- 4
- 5 or more

Household monthly energy bills
- <£120
- £120-160
- >£160

Findings

- **Confirmations of the known**:
- Higher incomes
- Professionals
- large homes (4-7 bedrooms, up to 5 bathrooms)
- multiple cars (7 max), appliances (3 fridges/freezers), devices (multiple PCs with double screens and printers).

"the usual things in the garage. There is a Vinidor in the garage … which is electric, which keeps bottles of wine either room temperature or cold down at the bottom." (IG)

"Actually, I've got two fridge freezers in the utility room and a fridge in the kitchen." (RS)

"Three PCs and "a couple of laptop type things", all linked on 'a network': *"How it works I don't know, I had the guy who does our computers at work to come and set it all up for me"* (MC)

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Findings: flights

- 1/3 of sample flew 10+ return flights annually

- Focus on flight important to pre-empt 'lock-in' – as in automobility.

- Work travel clearly a driver of habituation.

- 52 segments in 24 interviews 'planes' + 'holidays' or 'getaways or weekends'

- 14 segments from 6 interviews 'planes' + 'work' or 'trips away with work'.

"he's always travelled quite a bit for work so he's been sort of all over the world for work" (KS, about her husband)

"we've been to most places in the world I suppose … previous job I used to fly to China as well so if you go back in my history my footprint is massive." (KG)

"I probably take, with holidays as well, maybe 60 flights a year … So, yeah, yeah, I'd hate to think of my carbon footprint [laughter]" (PL)

Findings: flights

- Holidays for a variety of reasons: peak experiences, variety, novelty
- International flying as a normalised social practice, with skills, meanings, and materialities
- Familiarity and ease.

"I wanted to have an experience of something that… almost a seminal experience; we did the cruise to … the Hubbard Glacier … For me there's so much to see in the world and also it's so important to value it … it makes you realise the value of what we've got and we shouldn't take it for granted." (MH)

"I can't even remember what I did. I did New Jersey to Hong Kong … and then Hong Kong to Phuket … there was a stopover there" (SK2)

"you can give me an airport probably anywhere in Europe and I'll tell you how to shortcut through it" (PL)

Findings: flights

- **Social networks**: friend and family who influence travel in 4 ways:
  - share and thereby duplicate trips
  - as 'destinations' inspiring trips (esp. international families)
  - providing destination facilities, e.g. villa, apartment or other accommodation
  - Rituals of network maintenance

"I'd probably go on maybe one or two other skiing holidays …one with my friends, and then another one often with work colleagues." (AS)

"I go to see my parents abroad or my sister … in Russia … They will come here every year and I would go there maybe every second year" (KR)

"a friend of mine has got an apartment in Portugal, so we've been there a few times." (ML)

"all my friends were international stag dos, and I even got married second time around in France, so we had all the guests flying over for that as well." (PL)

Findings: flights

- Also professional training, leisure, impulsivity
- **Social** influences:
  - Travel agent friend,
  - importance of media
  - Novelty and ratcheting
  - Distinction
  - Freedom and rite de passage

"so I literally woke up and …ended up booking it through a cousin of mine … and then I was on a plane at ten o'clock in the evening out to Columbia … for four days" (SK)

"we've been to Greenland, Iceland, Norway, Russia … parts of the world you only read [about] *or see on the television."* (MC)

"once we've been somewhere a bit different once we just … we wanted to go somewhere a bit more off the beaten track and a bit sort of more unusual" (KS)

"I like going to places where … a lot of normal tourists don't" (SM)

"he's gone to Thailand when he was, like, 17 … to go to places that were, you know, free" (WW)

Findings: flights

- **Material** influences:
  - No aeroplanes
  - Proximity to airports
  - 8/30 interviewees (27%) mentioned villas, chalets or apartments.
  - Spacetime "3 hour flight"
  - Convenience vs car in UK

"So it's in the south east, about 20 minutes north of Heathrow" (AW); *"we were very centralised and we'd got the airport nearby. So, it ticks all the boxes."* (MH); *"as I developed my career I was travelling a lot out of Heathrow so it's 15 miles away"* (TW)

"he invested in a chalet. That obviously means that we've now got that availability, so we use that" (PL)

"we try and look for places that are, you know, close enough that it's not… we don't want to be more than a three hour flight really" (KS)

"we bought an apartment in the south of France … I could be [there] quicker than … to my sister in Dorset… three and a half hours I could be there on the balcony with a glass of vino." (MH)

Discussion: frameworks

- Habituation, based on frequency, familiarity, social networks, ratcheting expectations, availability and convenience

- Confirmation of specific aspects of 'mobility links'

- Systems of provision determine expectations: cheapness, lack of taxation, flights become locked-in as the means of achieving speed, comfort, convenience.

- Media and novelty additional ratcheting factors, adding to escalation (distance, difference)
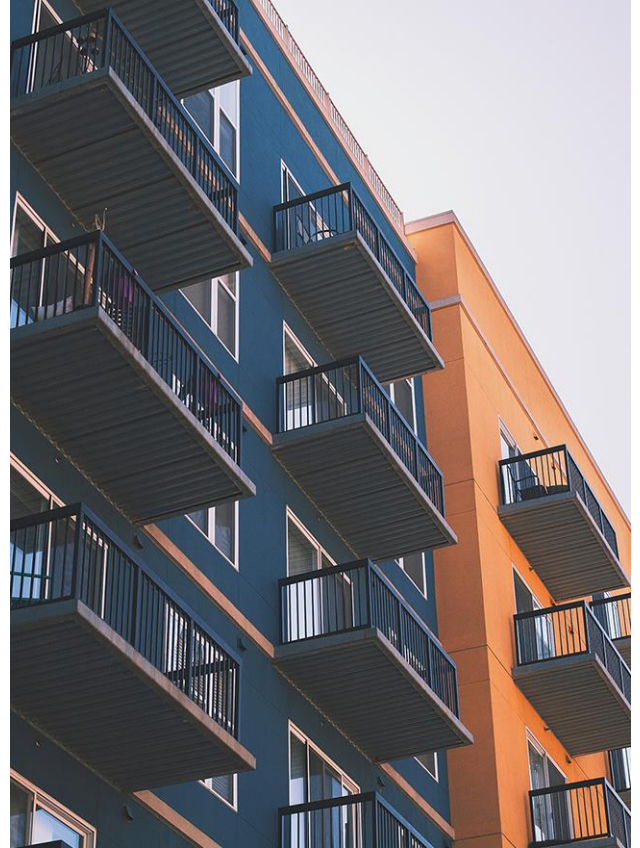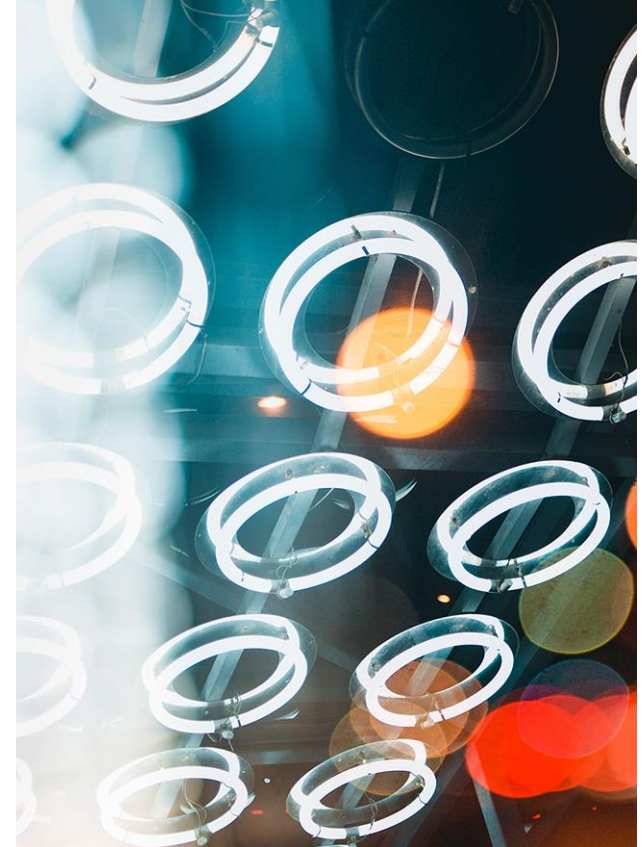
Discussion: Needs and Well-being

- Travel satisfies Needs: sociality, belonging, family life

- Business travel satisfies basic needs, well above basic levels.

- Covid lockdowns as 'evidence' of a lack of harm from reductions in flights and travel

- Positive aspects of reconfiguring travel and family life

- Useful experience for 'high fliers'?

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Discussion: Excess

- No definitive support for any one definition of 'excess' energy consumption.

- A general acceptance that their travel is above what is 'needed'.

- Combine Needs-Satisfaction limits with a strict Brundtland definition of sustainability and a Kantian requirement for generalizability of action by affected populations?

- Requires elimination of inequalities

- Reflexivity in our academic practice?

Thank you