



CENTRE FOR RESEARCH INTO
ENERGY DEMAND SOLUTIONS



Policy & governance



UK Research
and Innovation



Home for the Common Future (HCF)

The use of home-meanings to promote
domestic energy retrofit

Retrofit: cognition vs emotion

- The promotion of energy retrofit to homeowners is an important policy strategy to reduce operational energy use in dwellings and mitigate climate change.
- We typically focus on the cognitive (logical) aspects to motivate retrofit decisions, such as savings on energy bills and health considerations.
- What about **emotional** aspects of decision-making about one's **home**?

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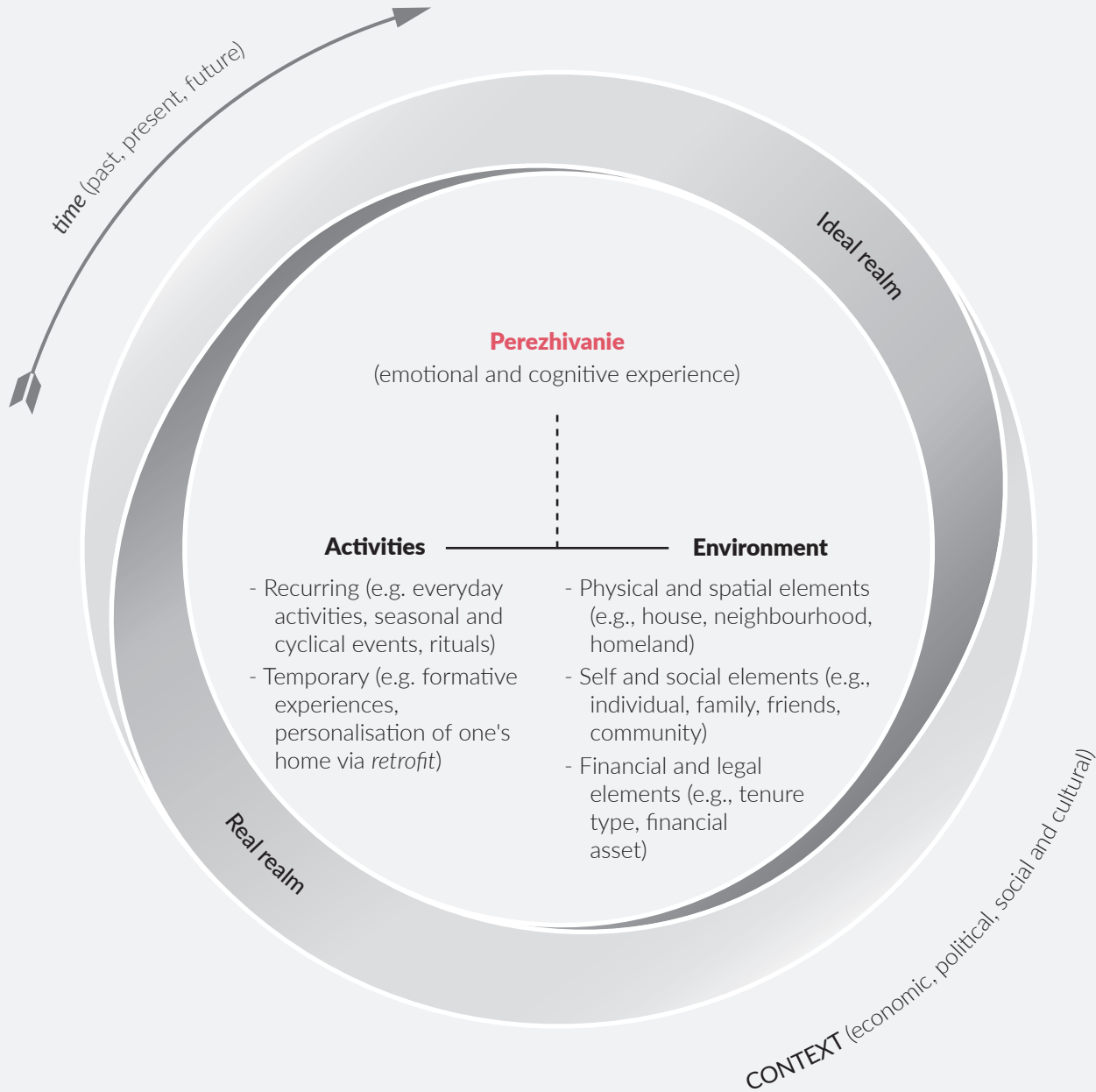


VS



Home-meanings

To encompass both the emotional and cognitive aspects of energy retrofit decisions, we developed a **home-meanings** framework around the concept of **perezhivanie** (emotional and cognitive experience).



Vygotsky, L. S., 1971. *The psychology of art*. Cambridge, MA: MIT Press.

Vygotsky, L. S., 1994. 'The problem of the environment'. In J. Valsiner & R. Van der Veer (Eds.), *The Vygotsky reader* (pp. 347–348). Oxford, UK: Blackwell.

Fleer, M., Rey, F.G., Veresov, N., 2017. (Eds.), *Perezhivanie, emotions and subjectivity: advancing Vygotsky's legacy*. Singapore: Springer.

Figure 1. Home-meanings framework

Literature and data

- **Critical literature review** on home-meanings.
- Eighteen **case studies**, in ten of which homeowners achieved significant carbon emission reductions through retrofit activities, while in eight they did not.
- Stakeholder **workshop** (n=36), representing various actors interested to advance domestic energy retrofit activities in the UK, e.g. industry, government, academia, intermediaries.

Home meanings

Positive emotional
and cognitive
experiences
associated with

Low-carbon
home

Low-carbon home



We analysed the data to identify **positive experiences** associated with low-carbon dwellings. These experiences are organised in five themes:

- i. Control over one's environment
- ii. **Happiness in everyday life** & **Health and well-being**
- iii. **Caring identity, citizenship** & **Climate concerns**
- iv. **Future-resilience** & **Financial considerations**
- v. Full integration between and individual and their environment

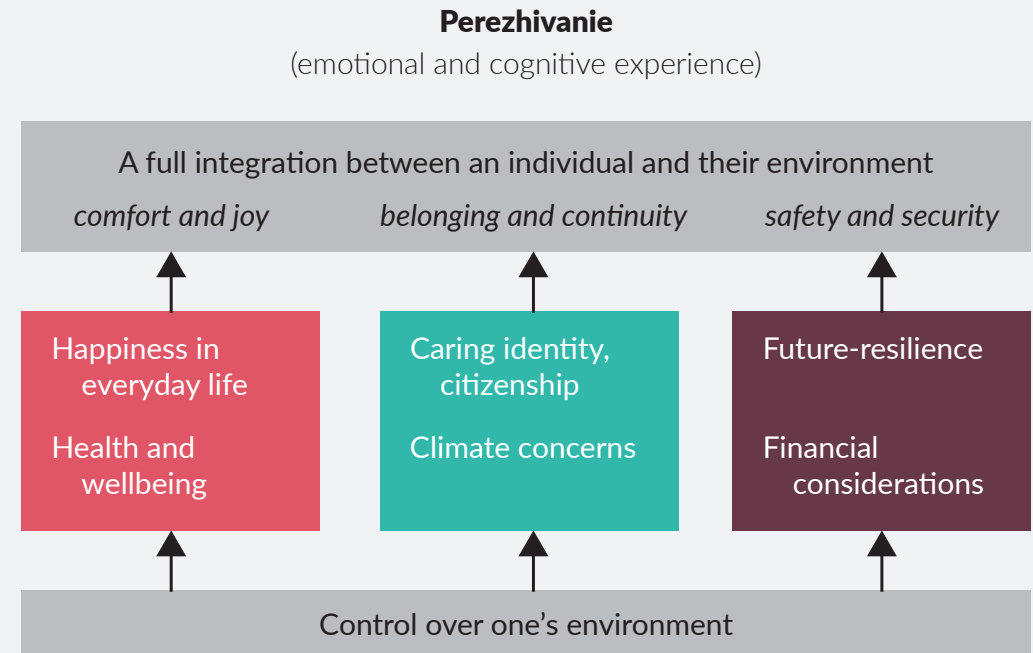


Figure 2. Five themes of positive emotional and cognitive experiences associated with low-carbon dwellings

Control over one's environment



C7: “Overheating is always a shading problem. The way you control it, you have more shades in the day, and you open your windows in the night. That is how you keep it cold.

You can see [showing monitoring data] we went up to 30°C because that is how I wanted it. But then I had enough. So, I closed that and opened the windows in the night. Then it didn't warm up that much anymore. So, it's really up to me. To be honest, I love it, I really, really love it. So, it's up to you but in a Passivhaus you can control”.

Health and well-being Happiness in everyday life



C7: “When it comes to energy efficiency, which, actually, I don’t think many people understand that is also a part of feeling cosy. That you have good air in the morning, you don’t have draughts, you have a constant 20-22°C... it is quiet... I think it’s a part of feeling cosy, for me at least”.

Climate concerns

Caring identity



C9: “Future, secure. It’s all about the future, that’s how we see it. We don’t do this for us, we are not doing this for ourselves to be honest. Because in my lifetime, what I am doing now, has no impact on my lifetime. It’s all about the future.”

Financial considerations

Future-resilience



C4: “I like the idea of being self-sufficient. The fact that I got a solar panel, helps me to feel that.”

C6: “Even on the coldest winter day, we know we can heat the house with the power cut for three days in snow [because of the configuration of the on-site heating technologies]”.

Full integration between an individual and their environment



Joy, happiness and comfort

C1: “It is like the best house I’ve ever lived in [laughing]... in the kind of environment — thermal, light, finishes...”

Belonging and continuity

C4: “I’ve put my stamp on it. I have certainly not built it, but I have, to a certain extent, created it”.

Safety and security

C8: “... economic security in the future ... Certain things are guaranteed that you are going to have to pay for. No matter where you are in life. From council tax to energy bills and to utilities. And as you do get to fixed incomes, you get older, it’d be nice to mitigate some of those costs.”

Building narratives to encourage retrofit

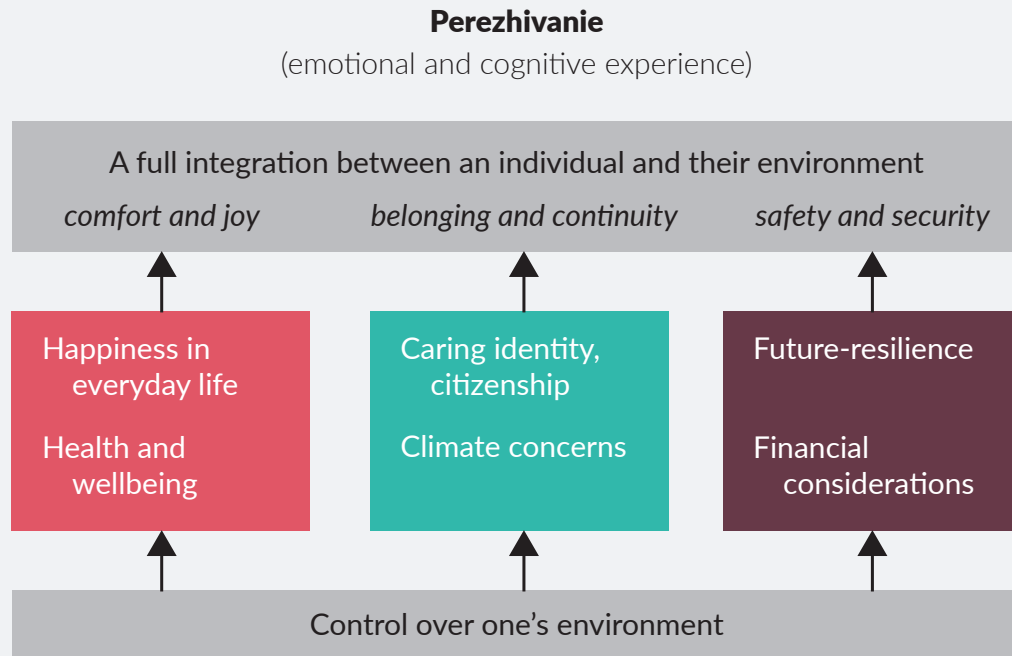


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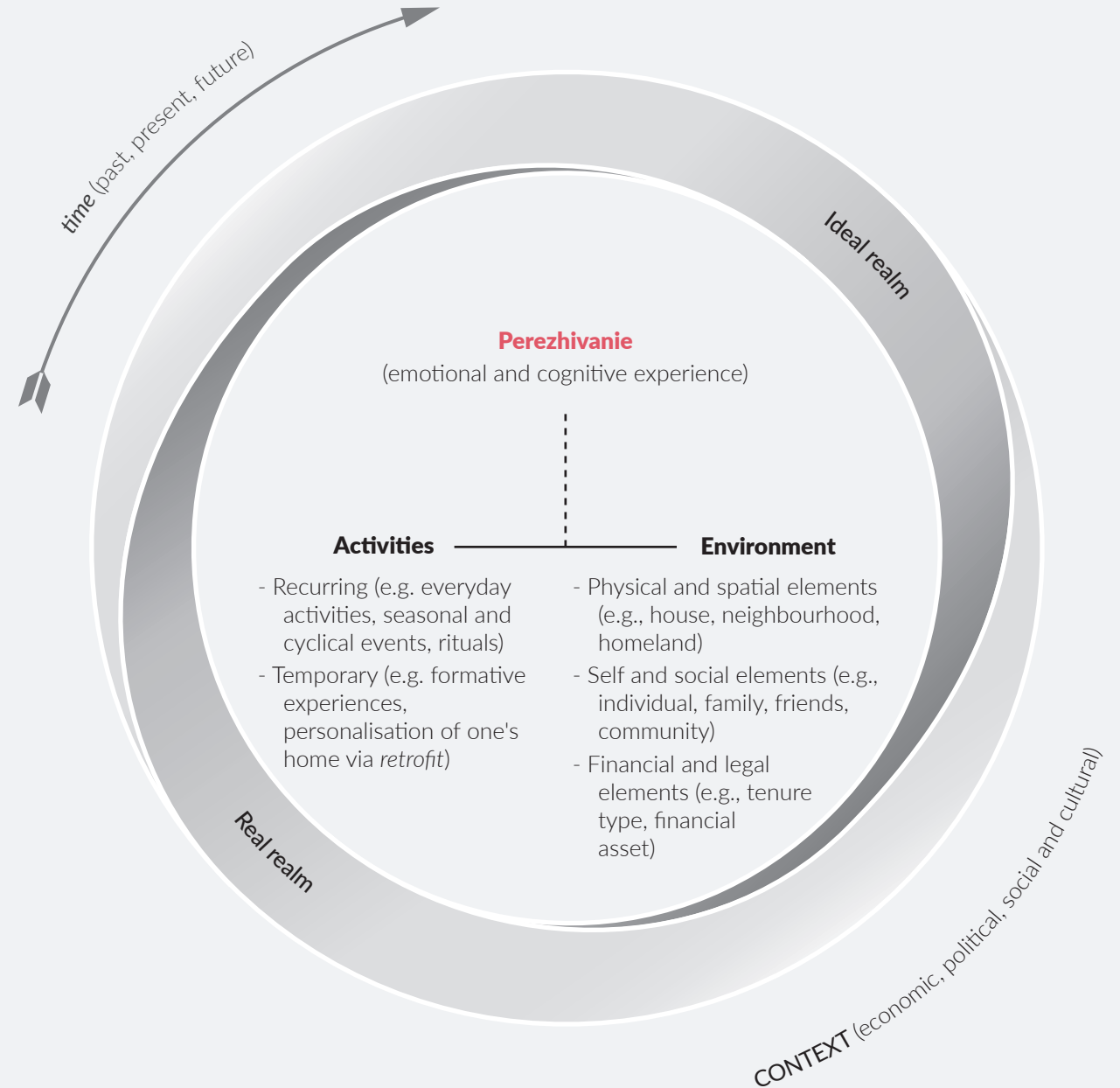


Figure 1. Home-meanings framework

Retiree pension pot lump sum



WP22_ind: I like the retiree, retiree pension pot lump sum, worried about getting colder in their own home. I'm going to get weaker and more sedentary, so, I **am planning for the future**.

...

WP21_dem: Yes, and that sort of connects to... You're changing your identity, going from a "worker" to a "retiree". And, so, capturing the ideas and changes that experience will bring to you and *what positive things you'll get as a result of that change*. That seems like a useful thing.

...

WP20_aca: Yes, I think, having lower running costs is a value for them. They are probably **scared of having a lower budget**...

...

WP20_aca: Yeah, so you're not making it more complicated, you're... you feel greener, **you feel more related to the future**, because you have something that **is not going to be obsolete**, but you don't have difficult new practices to learn.

HCF heuristic



Emotional

Happiness in everyday life

Caring identity,
citizenship

Future-resilience

Home for the Common Future

Cognitive

Health and wellbeing

Climate concerns

Financial considerations

Figure 3. Home for the Common Future (HCF) heuristic to promote low-carbon dwellings

Journal publication

This paper is currently in print in

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Thank you for listening

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