Consumption | Individual communication

IC - (21317) - LOOKING OVER THE WALL: A LITERATURE REVIEW OF ENERGY CONSUMPTION INTERVENTIONS MAPPED ON A DOMAIN-INDEPENDENT NUDGING MECHANISMS FRAMEWORK.

Peter Conradie[1]; Bram Van Acker[1]; Koen Ponnet[1]

1 - Institute for European Energy and Climate Policy

Background and objectives

Studies within social sciences and environmental psychology point towards the potential of behavioural interventions to encourage households to reduce energy consumption. However, a limited number of nudging mechanisms have been corroborated extensively, whereas other effective mechanisms are largely overlooked.

Process and methods (for empirical research)

This study reviews forty-seven intervention studies conducted over the last 20 years targeting energy conservation behaviour of households through nudging mechanisms. It differs from past literature reviews by mapping the studies onto the framework of Caraban et al. (2019), consisting of six categories: facilitate, confront, deceive, social influence, fear, and reinforce. Best practices, issues, and leveraged cognitive biases are reported per category in this paper.

Main results (or main arguments in the case of critical reviews)

The vast majority of reviewed studies implemented reinforcement nudges, with feedback standing out above any other nudging type. Traditionally, feedback serves as the basis in treatment groups, which is further amended with other nudging types, such as social comparison, normative appeal or goal setting. Social influence nudges are the second most evaluated category. These primarily leverage the herd-instinct bias, whereas the spotlight effect, which is leveraged by public rankings and commitments, has only been evaluated in very few studies. In contrast to these two nudging categories, the other categories are almost uncharted territory in energy-reducing nudging, although particular types have been found effective in other domains. Recommendations are given to inform future interventions about novel yet effective nudging mechanisms.

Implications for research and practice/policy | Importance and originality of the contribution

About NUDGE

The Horizon2020 project NUDGE aspires to systematically assess and unleash the potential of behavioural interventions towards achieving higher energy efficiency, paving the way to the generalized use of such interventions as a worthy addition to the policy-making toolbox.

NUDGE is set up to analyze people's behaviour and design and test nudging interventions in five EU Member States in households, energy communities and schools. All interventions are rooted in fundamental principles of behavioural science, using a broad range of methodologies and tools, including field experiments and surveys to assess the impact of interventions coupled with randomized control trials to assess effectiveness. Most of the research and experimentation is also focused on the formulation of policy recommendations.