

## CLIMATE POLICY

# The potential cost of nudges

'Nudge' interventions, such as green energy defaults, may be simple and cost-effective ways to address climate change and can complement more substantive climate policies. But, new research finds that information about a nudge policy lowers support for a carbon tax, unless that nudge policy is described as part of a comprehensive approach.

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The search for effective climate change mitigation and adaptation strategies has motivated actors of all sizes and sectors to propose new policy ideas — from nations to cities, and public governments to private corporations. The policy approaches themselves also vary in scale, whether ambitious such as the Green New Deal<sup>1</sup> or Microsoft's internal carbon tax<sup>2</sup>, or smaller in scope such as a university asking its faculty to carpool to campus. Many climate experts have argued for large-scale, nationwide carbon taxes to incentivize the greening of sectors according to traditional economic principles<sup>3</sup>. However, unless the federal policy landscape shifts, such an aggressive approach currently seems unlikely. Because of this uncertainty, other smaller-scale climate strategies are commonly used, such as behavioural nudges and policy defaults. A risk to using these smaller-scale policies, however, is that they may give the impression that sufficient progress is being made, reducing the perceived need for other, more aggressive climate policies. Writing in *Nature Climate Change*, David Hagmann and colleagues<sup>4</sup> suggest that pitching nudge policies may undermine the public's subsequent support of a carbon tax if the initial framing of the nudge policy is overly optimistic about its ability to address climate change.

If we need multiple policy approaches to address something as complex and pernicious as global climate change, then we need to understand how to elicit greater support for multiple policy options. This also means that when a climate policy action is enacted, policy experts and social scientists need to understand how to ensure that people do not then express less support for other climate policies. The idea of negative behaviour spillover — that an increase in one pro-environmental action (for example, saving energy at home) may decrease engagement in other, subsequent pro-environmental actions (for example, saving water at home)<sup>5–7</sup> — directly speaks to this possibility of policy support spillover.

Economic analyses suggest there is a valid, albeit perhaps inflated, concern over large-scale negative environmental behaviour

spillover<sup>8</sup>. However, research on climate messaging and policy support has still largely underappreciated the complex ways in which multiple policy proposals interact in real time, including the potential for negative policy support spillover. Instead of exposure to a single climate policy proposal, people in the real world have to navigate multiple policy strategies, including strategies pitched by multiple policy actors across multiple sectors, such as international agreements, national policies and private sector strategies. Research on climate messaging has started to consider this more realistic context where people are exposed to multiple messages, showing, for instance, that denialist messages intermixed with climate concern messages can weaken climate concern<sup>9</sup>. Likewise, if we want to better understand why people do or do not support multiple climate strategies, we need to more frequently study how perceptions of various climate policies interact.

This work by Hagmann and colleagues contributes to both our theoretical understanding of negative policy support spillover — why inducing support for one climate policy may reduce support for other policies — while also wrestling with how people respond when exposed to multiple policy strategies in succession. Across six studies, three of them with pre-registered hypotheses and materials, participants were asked to decide whether or not to implement a carbon tax policy or a green nudge policy when exposed to one or both options, sequentially or simultaneously. They consistently find that introducing a nudge undermines support for a carbon tax, and that this effect holds regardless of political affiliation, climate change belief and perceptions of policy effectiveness.

Fortunately, Hagmann and colleagues also find evidence that learning about a nudge climate policy does not have to lead to reduced support for a carbon tax. First, if the initial nudge policy is framed as having a smaller impact, such that other strategies will also be required to reach the desired outcome, then support for a carbon tax does not decrease in the presence of a nudge. The other strategy that Hagmann and colleagues find that reduces negative policy

support spillover is limiting the perceived economic cost of a carbon tax, essentially making it a more palatable policy.

This study shows that exposure to a simple nudge reduces subsequent support for a more comprehensive policy. However, this effect is not unique to climate change policy: the authors similarly find that introducing a nudge related to retirement savings reduces support for an expansion of social security taxes. These results suggest that the effect of a nudge policy on support for subsequent policies extends beyond the climate context, and also raises questions about which types of policies may lead to negative policy support spillover.

Climate change is such a complex problem, requiring cooperation between nations, cities, and public and private sectors, that it seems foolish to pitch any one climate approach as 'the answer'. Instead, being honest about the incomplete but complementary nature of any given policy approach may help people appreciate why support for multiple policies is important. The work by Hagmann and colleagues<sup>4</sup> provides useful insight into the factors that broaden support for multiple climate policies, and suggests ways to keep the policy dialogue open. □

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