

NRP 73 Policy Brief Nr. 8 / 2023

Improving the effectiveness of behavioural interventions

Policy implications of research

- 1** Behavioural interventions that encourage private households to adopt environmentally friendly behaviours can create positive spillovers, also known as “secondary effects”. The households go on to increasingly adopt environmentally friendly behaviours in areas not directly targeted by the interventions.
- 2** Such positive spillovers increase the effectiveness and cost efficiency of interventions.
- 3** Positive spillovers are particularly likely if the intervention is successful in activating households’ environmental identity. Furthermore, similar perceptions of the various environmental action areas, the ability to adopt environmentally friendly behaviour with little effort and the availability of sufficient information on the environmental impact of households’ own behaviour play a role too.

Approach and Results

Households that are given incentives to use less hot water are also more restrained when it comes to heating.

A “hot water challenge” in a field study of just under 5,000 Swiss households reduced hot water consumption by 5%. Although this decrease gained initial momentum from offering households the chance to win one month’s rent, it persisted for several months after the challenge had ended. Furthermore, it was found that heating energy consumption fell by about 5% both during and after the challenge.

These positive spillovers may have occurred because the hot water challenge activated the self-image of environmentally friendly households that not only set out to save hot water, but also want to do something for the environment – for example by turning down their heating. Moreover, the households seem to view hot water and heating as closely related. Turning down the heating is also a straightforward step and households were regularly updated on their hot water consumption.

The secondary effects of interventions in terms of environmentally friendly behaviour are frequently positive.

Behavioural interventions that encourage people to behave in a more environmentally friendly way are frequently met with a certain amount of scepticism. The “moral licensing” argument is used to assert that behaving in a more environment-friendly way in one area results in more environmentally damaging behaviour in others. This argument claims that if private households commit to improving the environment in one particular area, they are likely to conclude that they have done sufficient good deeds and therefore “have done their bit” to protect the environment. They therefore assume that they have the right to behave as they like in other areas where environmental protection is important. As a result, a behavioural intervention could have a negative overall effect on the environment.

A large number of recent empirical studies – as well as field studies undertaken as part of NRP 73 – show that although behavioural interventions on environmental issues can have negative secondary effects, these do not dominate the picture. Secondary effects appear to be virtually non-existent where environmental action areas are less closely related (e.g. mobility and water consumption). When areas are more closely related, the effort involved in adopting environmentally friendly behaviour is important, as is feedback on the effects of people’s own behaviour. The simpler the behavioural changes, the better the information on the effects of behaviour and the faster that information is provided, the higher the chances of positive secondary effects. It appears to be crucial that households perceive themselves as environmentally friendly and are consistent in adopting environmentally friendly behaviours in all areas and not only in the area targeted by the behavioural intervention.

Conclusion

Interventions that deliberately guide private households towards more environmentally friendly behaviour in certain areas are an important piece in the jigsaw puzzle of increasing sustainability, slowing down global climate change and conserving natural resources. General scepticism that such behavioural interventions cause more net damage than benefits is not appropriate. The likelihood of either no or positive secondary effects (spillovers) is very strong.

Behavioural interventions with positive secondary effects are particularly interesting. Firstly, they increase the effectiveness of interventions because the positive environmental effects achieved are greater overall than the effects in the area actually targeted by the intervention. Secondly, interventions become particularly cost-efficient in such cases because they achieve a substantially greater positive environmental effect for the same cost.

Using recent empirical studies, including some undertaken as part of NRP 73, it is possible to identify framework conditions within which behavioural inter-

ventions in the environmental field have a strong chance of greater effectiveness. Activating a positive environmental identity in the households in question seems to be key. If a household perceives itself as environmentally friendly in the wake of the intervention, and if it is interested in behaving consistently, the chances are good that it will behave in a significantly more environmentally friendly manner in other areas too. The chances seem to be particularly high if households perceive the original area of intervention to be “similar” to another environmental action area, if the effort involved in adopting environmentally friendly behaviour is felt to be low, and if they quickly receive feedback on how environmentally friendly their behaviour is in the different areas.

Institutions such as towns, cities, municipalities or even companies that are interested in encouraging private households to consume in a more sustainable way should consider these framework conditions when designing behavioural interventions. By doing so they will increase both the effectiveness and cost efficiency of their efforts.

What is meant by...

- **Behavioural intervention:** Incentives or “nudges” provided by institutions or companies to guide (consumption) behaviour in a particular direction, for example towards greater environmental compatibility. Price changes and rationing are not regarded as behavioural interventions.
- **Spillovers / secondary effects:** Behavioural changes in environmental action areas following a behavioural intervention to encourage more environmentally friendly consumption behaviour despite the action areas in question not being the primary target of the intervention.
- **Environmental identity:** An individual’s or private household’s perception of itself that expresses the significance which the individual or household attaches to environmental values.

Key messages

Environmentally friendly behaviour, such as energy-saving behaviour in private households, is desirable for various reasons, key among them slowing down the process and negative consequences of climate change, and ensuring that natural resources are used sustainably. Interventions that encourage individuals to behave in a more environmentally responsible way are currently popular. Interventions that reduce resource consumption not only in their primary target area (e.g. using less hot water) but also in

other secondary areas (e.g. using less heating energy) are effective and cost-efficient. For this reason, behavioural interventions should be designed in such a way that they are capable of triggering beneficial secondary effects. This appears to apply particularly in cases where interventions activate individuals' own positive environmental identity. Thus, people who want to behave consistently display their positive environmental identity not only in the primary target area of the intervention, but also in secondary areas.

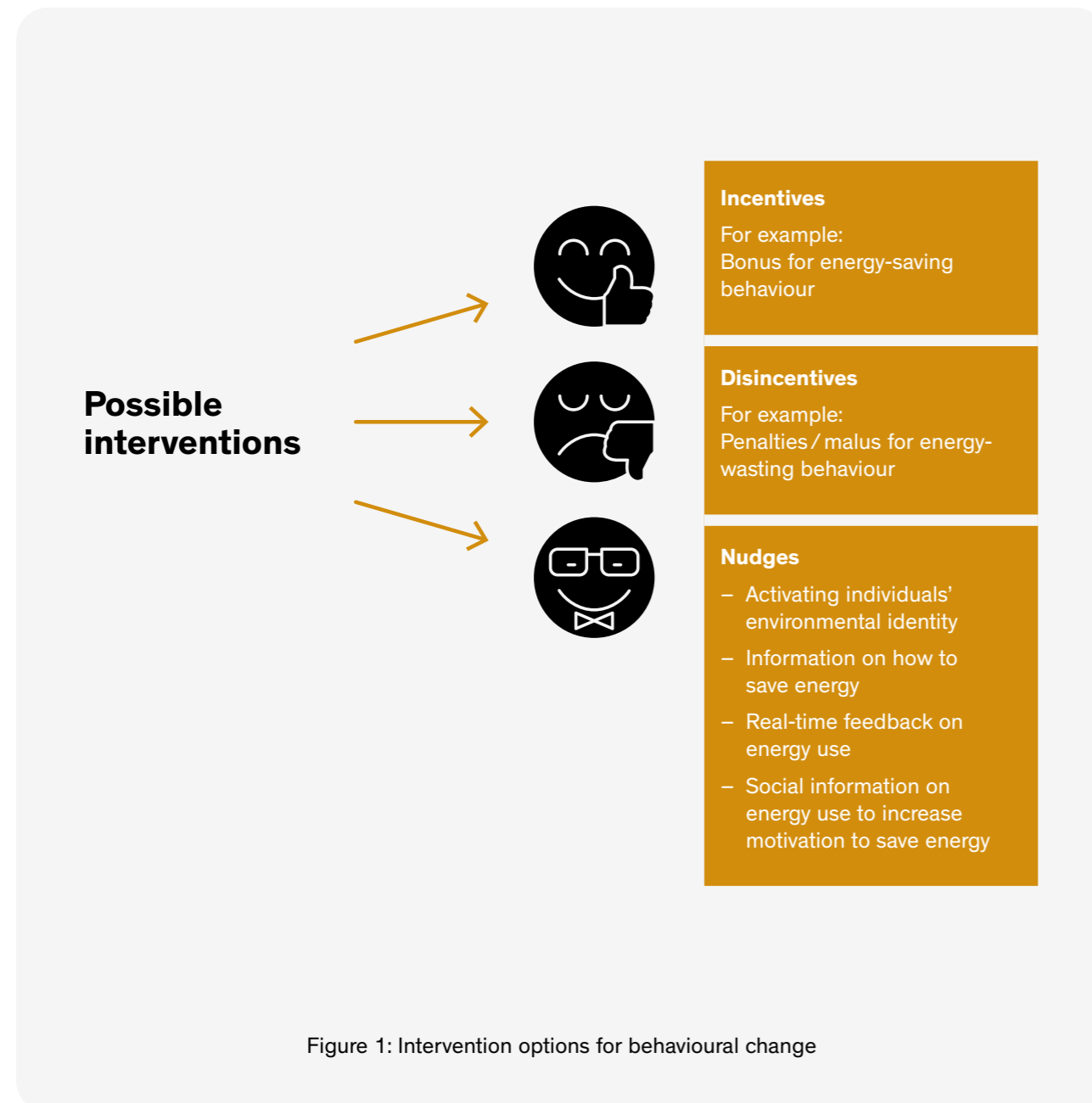


Figure 1: Intervention options for behavioural change

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Authors



Renate Schubert
ETH Zurich
schubert@econ.gess.ethz.ch



Harald Mayr
UZH
harald.mayr@econ.uzh.ch



Alexander Götz
ETH Zurich
a.goetz@gmx.ch

About NRP 73



www.nrp73.ch

The National Research Programme “Sustainable Economy” (NRP 73) was launched by the federal council with a global budget of CHF 20 million for five years of research starting mid-2017. It funded 29 research projects in different thematic areas such as Circular Economy, Finance, Building & Construction, Cities & Mobility, Forestry, Agriculture & Food, Supply chain, Sustainable Behaviour and Governance. NRP 73 aims at generating scientific knowledge about a sustainable economy that uses natural resources sparingly, creates welfare and increases the competitiveness of the Swiss economy.

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**National Research Programme
“Sustainable Economy” NRP 73**
Swiss National Science Foundation SNSF
Wildhainweg 3
3001 Bern

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Contact

Irina Sille
Programme Manager NRP 73
SNSF, Wildhainweg 3
3001 Bern

T: + 41 (0)31 308 22 20

E: nrp73@snf.ch

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