

This essay will argue that while nudges are an effective policy tool, marginal behavioural changes can only achieve a fraction of what conventional policy tools can, particularly in the environmental domain. Therefore, policymakers should be mindful of the potential 'crowding out effect' green nudges may have on conventional environmental policy support and should evaluate their effectiveness as a policy package aimed at a common goal, rather than individually.

Nudges, small changes in the decision-making environment that steer decisions, aim to correct poor or 'irrational' decision-making by individuals, for instance, concerning health and savings, correct negative externalities, such as non-environmentally friendly behaviour, and promote socially optimal behaviour without restricting freedom of choice or significantly altering economic incentives (Thaler and Sunstein, 2009). This essay will first consider the ethical concerns around nudging before exploring the effectiveness of different types of nudges. Finally, it will discuss the risk of a crowding out effect of green nudges and ways of mitigating it.

The ethics and effectiveness of nudges

In recent decades, nudges have gained prominence in public policy due to their low cost, ease of implementation and perceived effectiveness (ibid). According to Benartzi et al. (2017), the impact-to-cost ratio of nudges is substantially higher than for many conventional policies, such as monetary incentives. Following the initial success of the Behavioural Insights Team (BIT) in the UK, BITs have been formed in dozens of countries around the world (Afif et. al, 2019). The philosophical justification of nudges lies in liberal paternalism, an approach aiming to preserve freedom of choice while allowing institutional actors to steer people's behaviour to increase their welfare (Congiu and Moscati, 2022). Nudges encourage people to make choices they would have made if they were 'rational' or had complete information and full self-control (ibid). Thaler and Sunstein (2009) and Sunstein (2018) argue that certain choice infrastructure is already in place, whether intentionally designed or not, and people approve of interventions more restrictive of personal freedom such as laws and bans, so this sort of behavioural intervention to promote people's wellbeing should also be accepted.

However, for critics, a central issue is the intentionality of nudging, which makes it incompatible with liberal democratic values of transparency and individual autonomy, as nudges manipulate people, exploit their cognitive biases to steer decisions and may become a slippery slope to the 'psychological state' (Grüne-Yanoff, 2012; Jones et. al, 2013; Wilkinson, 2013). Nevertheless, de Ridder et. al (2024) emphasise that individual autonomy is only one of the fundamental principles underpinning the social contract between citizens and the state and informing public policy, and other values including solidarity and justice should be integrated into the conversation about the legitimacy and ethics of nudging. The majority of citizens in different countries support the use of nudges, particularly for health and safety, although nudges targeting passive processes are less popular than educative nudges (ibid, Congiu and Moscati, 2022; Jung and Mellers, 2016). Furthermore, stronger support for regularity nudges is associated with greater trust in public institutions, which may deter policymakers from abusing nudges and descending into a 'psychological state' dystopia (Sunstein et. al, 2019).

Among different types of nudges, defaults are perhaps the most common. Defaults have been effectively implemented to foster savings, through pension autoenrollment (see UK Government, 2022), sustainability, for example, through default double-sided printing setting (Egebark and Ekström, 2016), and health (Shaffer, 2017). Sunstein and Reisch (2014) attribute their effectiveness to one's interpretation of a default as an implicit recommendation from someone with greater knowledge, as well as inertia or procrastination and loss aversion. The provision and simplification of information, such as product labels for energy-efficiency or nutrition information, has demonstrated mixed results (Allcott and Sweeny, 2017; Cioffi et. al, 2015; Rising and Bol, 2017), whereas the introduction of social norm information like neighbourhood comparison of energy consumption has proven effective (Allcott, 2011; Ruokamo et. al, 2022). Introducing changes to the physical environment or choice architecture can promote healthy eating (Shaffer, 2017): strategically designed cafeterias encourage people to eat healthier (Hanks et. al, 2013; Cohen et. al, 2015), providing smaller plates in buffets helps reduce food waste (Kalbekken and Sælen, 2011), and placing vegetarian options at the top of the menu helps lower meat consumption (Gravert and Kurz, 2021).

However, nudges can be rendered ineffective or less effective due to their short-term effect, existence of strong contrary preferences among the choosers or the use of counternudges (Sunstein, 2017). To illustrate, a 1°C reduction in the default thermostat setting significantly decreased the average setting, but when the default temperature was reduced by 2° C, the average reduction turned out to be smaller because people felt too cold (counter preference) and turned the temperature up to the comfortable level (Brown et. al, 2013). Counternudges are often employed by parties interested in convincing people to opt out of defaults. For example, following the US Fed Reserve’s ban on autoenrollment on overdraft programs, banks utilised various behavioural strategies to convince people to sign up (Sunstein, 2017). Despite the relative effectiveness of nudges, they can only achieve a fraction of what conventional policy tools can, particularly in the environmental domain, and may divert focus from conventional policy and even crowd out support for it (Raimi, 2021).

The crowding out effect

Policymakers should be mindful of the crowding out effect nudges, particularly green nudges, may have on more substantive conventional policies. Many note that the idea that global challenges like climate change can be tackled with ‘marginal lifestyle changes’ is overexaggerated and used by governments to conceal the lack of political will to make difficult and potentially unpopular decisions like introducing carbon taxes (Wagner, 2011; Thøgersen and Crompton, 2009). In fact, recent research revealed that behavioural interventions may crowd out public support for policies not directly targeted by it, a phenomenon known as negative behavioural spillover (NBS) (Maki, 2019; Truelove et. al, 2014). To date, these investigations have primarily focused on environmental policy (Hagmann et. al, 2019). Therefore, green nudges which encourage a relatively trivial behavioural change may reduce the perceived need to support more substantive conventional policies that often require more effort and sacrifice (Raimi, 2021). People may overestimate the impact of marginal behavioural changes, such as buying energy-saving lightbulbs, as they feel they ‘have done their part’ and lose motivation to do more – a behaviour known as moral licensing (Dorner, 2019; Werfel, 2017).

While the research on the spillover effects of nudges is still developing, existing evidence is sufficient to warrant careful consideration of interaction effects between green nudges and conventional policies (ibid; Truelove et. al, 2014). Since green nudges aim to solve an economic problem (eliminating the negative externality of climate change), a direct comparison between nudges and conventional economic policy tools is important (Carlsson et. al, 2021).

To illustrate, sending energy reports comparing customers' electricity usage to their neighbours' is considered one of the most successful nudges – reducing energy consumption by 2% (Allcott, 2011). However, Hagmann et. al (2019) reveal that it may crowd out public support for a carbon tax, potentially reducing the likelihood of its implementation. Exposing people to a green nudge reduces their support for a carbon tax by on average over 20%, and the effect holds across political affiliations and climate change beliefs. Similarly, Werfel (2017), Lacasse (2015) and Knook et. al (2022) found that green nudges may crowd out environmental policy support.

To reduce the NBS associated with green nudges, Raimi (2021) suggests emphasising 'specific high-impact behaviours' and providing concrete instructions, rather than confusing people with hundreds of nudges and expecting them to adopt them all. Informing people of the behaviour's effectiveness may help overcome the moral licensing issue (ibid). Thus, in Hagmann et. al (2019), participants initially perceived virtually no difference in the effectiveness of the two environmental policies, even though a carbon tax is significantly more effective – informing them of the relative inefficiency of the nudge reduced the NBS effect.

To further minimise the NBS from green nudges, policymakers should consider and estimate the net effects of nudges, examining how they fit together with other policies as a package. If BIT operations are more centralised, this may be more difficult to achieve, due to budget constraints, high administrative costs and information-sharing constraints between government departments, public agencies and local government (Einfeld, 2022 (p. 199); Cairns et. al, 2011; Liu and Chetal, 2015). Furthermore, centrally functioning BITs may lack niche expert knowledge on different public policy domains which, in combination with behavioural research expertise, is essential for designing effective behavioural interventions and avoiding NBS (Dewies et al., 2022). The UK, Australia, Canada and the Netherlands have transitioned to geographically or

departmentally decentralised models, whereas in Germany and France, BITs remain centralised (Afif et. al, 2019). In the US, BITs are generally decentralised by states and federal agencies, but the Environmental Protection Agency does not have a BIT, even though the crowding out effect has been mainly observed in environmental policy (ibid). Therefore, integrating BITs into different government departments may help minimise the likelihood of NBS and encourage innovation and research on the interaction between behavioural interventions and conventional policy instruments in different policy domains (John, 2016).

Conclusion

This essay has evaluated the effectiveness of nudges in the domains of health, sustainability and savings and discussed the ethics of nudges which may restrict individual autonomy through the manipulation of people's behaviour and exploitation of their cognitive biases. This paper has argued that policymakers should be mindful of the potential crowding out effect green nudges may have on conventional environmental policy support and should carefully consider the interaction effects between green nudges and conventional policies, evaluating their effectiveness as a policy package aimed at a common goal. Emphasising specific high-impact behaviours, informing people of their effectiveness and decentralising BITs by departments may help reduce the crowding out effect associated with green nudges and encourage innovation and research on the interaction between behavioural interventions and conventional policy.

Bibliography

Afif, Z. et. al. (2019). Behavioral science around the world: Profiles of 10 countries. *The World Bank*. Available online <https://apo.org.au/sites/default/files/resource-files/2019-03/apo-nid223781.pdf>, accessed 18 April 2024.

Allcott, H. (2011). Social norms and energy conservation. *Journal of public Economics*, 95(9-10), 1082-1095.

Allcott, H., & Sweeney, R. L. (2017). The role of sales agents in information disclosure: evidence from a field experiment. *Management Science*, 63(1), 21-39.

Benartzi, S. et al. (2017). Should governments invest more in nudging?. *Psychological science*, 28(8), 1041-1055.

Brown, Z. et al. (2013). Testing the Effects of Defaults on the Thermostat Settings of OECD Employees. *39 Energy Econ*, 128.

Cairns, A., Jackson, T., & Cooke, L. (2011). The factors involved in sharing information between public agencies.

Carlsson, F., Gravert, C., Johansson-Stenman, O., & Kurz, V. (2021). The use of green nudges as an environmental policy instrument. *Review of Environmental Economics and Policy*, 15(2), 216-237.

Cioffi, C. E. et. al. (2015). A nudge in a healthy direction. The effect of nutrition labels on food purchasing behaviors in university dining facilities. *Appetite*, 92, 7-14.

Cohen, J. F. et. al. (2015). Effects of choice architecture and chef-enhanced meals on the selection and consumption of healthier school foods: A randomized clinical trial. *JAMA pediatrics*, 169(5), 431-437.

Congiu, L., & Moscati, I. (2022). A review of nudges: Definitions, justifications, effectiveness. *Journal of Economic Surveys*, 36(1), 188-213.

de Ridder, D. et. al. (2024). Simple nudges that are not so easy. *Behavioural Public Policy*, 8(1), 154-172.

Dewies, M. et. al. (2022). Applying behavioural insights to public policy: An example from Rotterdam. *Global Implementation Research and Applications*, 2(1), 53-66.

Dorner, Z. (2019). A behavioral rebound effect. *Journal of Environmental Economics and Management*, 98, 102257.

- Egebark, J., & Ekström, M. (2016). Can indifference make the world greener?. *Journal of Environmental Economics and Management*, 76, 1-13.
- Einfeld, C. E. (2022). *Nudging Policy: The Role of Knowledge in Behavioural Insights* (Doctoral dissertation, The Australian National University (Australia)).
- Gravert, C., & Kurz, V. (2021). Nudging à la carte: a field experiment on climate-friendly food choice. *Behavioural Public Policy*, 5(3), 378-395.
- Grüne-Yanoff, T. (2012). Old wine in new casks: libertarian paternalism still violates liberal principles. *Social Choice and Welfare*, 38(4), 635-645.
- Hagmann, D., Ho, E. H., & Loewenstein, G. (2019). Nudging out support for a carbon tax. *Nature Climate Change*, 9(6), 484-489.
- Hanks, A. S., Just, D. R., & Wansink, B. (2013). Smarter lunchrooms can address new school lunchroom guidelines and childhood obesity. *The Journal of pediatrics*, 162(4), 867-869.
- John, P. (2016). Behavioral approaches: How nudges lead to more intelligent policy design. In *Contemporary approaches to public policy: Theories, controversies and perspectives* (pp. 113-131). London: Palgrave Macmillan UK.
- Jones, R. et. al. (2013). *Changing behaviours: On the rise of the psychological state*. Edward Elgar Publishing.
- Jung, J. Y., & Mellers, B. A. (2016). American attitudes toward nudges. *Judgment and Decision making*, 11(1), 62-74.
- Kallbekken, S., & Sælen, H. (2013). 'Nudging' hotel guests to reduce food waste as a win-win environmental measure. *Economics letters*, 119(3), 325-327.
- Knook, J., Dorner, Z., & Stahlmann-Brown, P. (2022). Priming for individual energy efficiency action crowds out support for national climate change policy. *Ecological Economics*, 191, 107239.

Lacasse, K. (2015). The importance of being green: The influence of green behaviors on Americans' political attitudes toward climate change. *Environment and Behavior*, 47(7), 754-781.

Liu, P., & Chetal, A. (2005). Trust-based secure information sharing between federal government agencies. *Journal of the American society for information science and technology*, 56(3), 283-298.

Maki, A. (2019). The potential cost of nudges. *Nature Climate Change*, 9(6), 439-439.

Raimi, K. T. (2021). How to encourage pro-environmental behaviors without crowding out public support for climate policies. *Behavioral Science & Policy*, 7(2), 101-108.

Rising, C. J. & Bol, N. (2017). Nudging Our Way to a Healthier Population: The Effect of Calorie Labeling and Self-Control on Menu Choices of Emerging Adults. *Health Communication*, 32:8, 1032-1038.

Ruokamo, E. et. al. (2022). The effect of information nudges on energy saving: Observations from a randomized field experiment in Finland. *Energy Policy*, 161, 112731.

Shaffer, V. A. (2017). Nudges for health policy: Effectiveness and limitations. *Mo. L. Rev.*, 82, 727.

Sunstein, C. R. (2017). Nudges that fail. *Behavioural public policy*, 1(1), 4-25.

Sunstein, C. R. (2018). Misconceptions about nudges. *Journal of Behavioral Economics for Policy*, 2(1), 61-67.

Sunstein, C. R. et al. (2019). Trusting nudges? Lessons from an international survey. *Journal of European Public Policy*, 26(10), 1417-1443.

Sunstein, C. R., & Reisch, L. A. (2014). Automatically green: Behavioral economics and environmental protection. *Harv. Envtl. L. Rev.*, 38, 127.

Thaler, R., and C. Sunstein. 2009. *Nudge: Improving decisions about health, wealth, and happiness*. New York: Penguin.

- Thøgersen, J., & Crompton, T. (2009). Simple and painless? The limitations of spillover in environmental campaigning. *Journal of Consumer Policy*, 32, 141-163.
- Truelove, H. B. et. al. (2014). Positive and negative spillover of pro-environmental behavior: An integrative review and theoretical framework. *Global Environmental Change*, 29, 127-138.
- UK Government. (2022). Ten years of Automatic Enrolment in Workplace Pensions: statistics and analysis. *Department for Work and Pensions*. Available online <https://www.gov.uk/government/statistics/ten-years-of-automatic-enrolment-in-workplace-pensions/ten-years-of-automatic-enrolment-in-workplace-pensions-statistics-and-analysis>, accessed 22 April 2024.
- Wagner, G. (2011). Going Green but Getting Nowhere. *The New York Times*. Available online [https://files.eportfolios.macaulay.cuny.edu/wp-content/uploads/sites/2075/2011/09/15191750/Going-Green-but-Getting-Nowhere-NYTimes.com .pdf](https://files.eportfolios.macaulay.cuny.edu/wp-content/uploads/sites/2075/2011/09/15191750/Going-Green-but-Getting-Nowhere-NYTimes.com.pdf), accessed 20 April 2024.
- Werfel, S. H. (2017). Household behaviour crowds out support for climate change policy when sufficient progress is perceived. *Nature Climate Change*, 7(7), 512-515.
- Wilkinson, T. M. (2013). Nudging and manipulation. *Political Studies*, 61(2), 341-355.