Behavioural Public Policy (2025), 1–8
doi:10.1017/bpp.2025.7

CAMBRIDGE UNIVERSITY PRESS

RESPONSE

The ethics of boost

Luc Bovens

Department of Philosophy, University of North Carolina, Chapel Hill, NC 27599-3125, USA
Email: lbovens@unc.edu

(Received 26 March 2025; accepted 26 March 2025)

Boosting and nudging

Humans have the capacity to apply complex grammatical rules from a very young age without having any awareness of such rules or competence to consciously apply them. They act *as if* they are following these rules. In the late 1960s, Tversky and Kahneman became interested in whether the same can be said for rules of rational belief formation and choice (Kahneman, 2011: 5). Are humans able to reason or choose in accordance with, say, Bayes' Theorem or expected utility maximization, though they have no awareness of these rules or competence to consciously apply them? What they noticed was that the situation was dissimilar: Unlike in linguistics, humans do *not* act as if they are applying these rules of inference or rational choice, but rather, they are making systematic mistakes. The Heuristics and Biases (H&B) framework is the study of these systematic mistakes.

Thaler and Sunstein (2008) import these insights of the H&B framework into public policy. When error-prone citizens make choices that are not conducive to what they consider to be in their interest, policymakers can reshape the environment so that these systematic human foibles will elicit choices that do serve the citizens' interests. This is nudge in a nutshell.

Hertwig *et al.* (2025) trace nudging back to a misreading of Herbert Simon's (1957) notion of bounded rationality. In the H&B framework, bounded rationality is about what lies beyond the bounds of rationality; it is the study of systematic deviations from rationality. But this, Hertwig *et al*. argue, is not how Simon conceived it. Rather, Hertwig *et al*. understand bounded rationality in terms of Gigerenzer and Peter (1999) Simple Heuristics framework: Humans act rationally within the bounds of their limited cognitive and motivational capacities and within specific environments. These cognitive and motivational capacities can be honed, and the environment can be adapted so that these capacities can operate successfully. And this is what boosting is meant to do (see also Grüne-Yanoff and Hertwig, 2016; Hertwig and Grüne-Yanoff, 2017; Herzog and Hertwig, 2025).

Nudging has a cynical ring to it. Humans are incorrigibly flawed decision-makers. The only thing policymakers can do is to work with these weaknesses and present

humans with an environment that leverages them, such that they will make choices that are in line with what they truly want. Put somewhat tendentiously: Humans can be made to do the right thing, but only if you trick them into it. On the other hand, there is something hopeful about boosting. Humans are educable. Their capacities can be developed, and their environment can be structured to exercise these capacities successfully. Nudge takes people as they are. Boost takes people as they might be.

The tension between nudges and boosts can be mapped onto Pope Frances' initiative to change the words of the Lord's Prayer for the Catholic Mass. The words 'Lead us not into temptation' were replaced with 'Do not let us fall into temptation'. The rationale is that God does not lead us into temptation. Rather, we simply do become tempted and ask God for the strength to resist temptation (Sherwood, 2019).

For a secular version hereof, think of the government's control over the environment in which we make fateful choices. Nudge asks that government does not present us with an environment in which we, fallible humans, would come to make the wrong choices. Boost asks that the government recognize our weaknesses and make us strong so that we will make the right choice within the environment as it is presented to us.

Christians see humans as creatures with limited morality. Behavioral scientists see humans as creatures with limited rationality. What can we do about it? We may ask God or the government not to let us operate in an environment where we will be led astray. That's the approach of the traditional version of the Lord's Prayer and of nudge. Or we may ask God or the government to make us strong and have us operate skillfully with our limited capacities. That's what the new version of the Lord's Prayer and boost do.

This change led to controversy in the Catholic Church. What does the original text say? How much of a hand do we have in our Salvation, or are we entirely dependent on God's Grace? These are not the questions for us to solve here. But the tension between nudge and boost strikes me as a secular version of this theological debate.

Furthermore, Hertwig *et al*. argue that nudges affect individual agency while boosts appeal to collective agency. Nudges are often opaque and can make people feel distrustful that they are being manipulated. When they are successful, they manage to tweak the behavior of people as individuals. But boosts are transparent. They offer a sense of empowerment and mutual respect, enabling people to overcome challenges together.

This is a common theme in emancipation movements. We find it in Paulo Freire's *Pedagogy of the Oppressed* (1969). Through education, we gain dignity and mutual respect, and we come to trust each other to define and strive for collective goals. We find it in Barack Obama's 'Yes We Can' campaign, based on César Chávez's '¡Si se puede!' slogan supporting labor movements for agricultural workers in the 1960s. And it has entered our popular culture: Disney's protagonist, Moana, keeps on reminding her crew of cartoon characters that if they only work together, they can cross any ocean.

Presented as such, it seems like a no-brainer. Boosting is empowerment toward collective action, while nudging is manipulative conniving to trick people into doing what is allegedly good for them. Boosting's *Menschenbild* (image of man) features educability, while nudge's *Menschenbild* features an incorrigible rationality deficit. Boosting gives people the tools to save themselves while nudging saves people from themselves. Who would not choose boosting over nudging?

https://doi.org/10.1017/bpp.2025.7 Published online by Cambridge University Press

In the following sections, I will address some concerns about boosting and the alleged moral superiority of boosting over nudging.

Boosting and risky choices in public health

One recurring example of boosting is offering probabilistic information in terms of natural frequencies and teaching people to convert probabilistic information into natural frequencies. People are better at reasoning with natural frequencies than with probabilities. They are better at drawing inferences, and they gain a better understanding of the risks. Here, boost builds on the research by Sedlmeier and Gigerenzer (2001) and Gigerenzer *et al.* (2007).

Does it follow that we should convey public health information in terms of natural frequencies? An argument to this effect is that when the information is conveyed in terms of natural frequencies, people have a better understanding, which leads to better-informed decisions. Maximal uptake of the relevant information makes decisions maximally autonomous.

However, what if such an enhanced understanding turns people away from screening and treatment because the expected benefits strike them as insufficiently weighty relative to the expected costs? This is their prerogative, of course, but what if improved understanding increases mortality because people decline screening and treatment?

David Spiegelhalter (2015, 2018) presents an infographic by Mike Pearson (Figure 1) to explain the benefits and costs of mammograms for breast cancer screening. The information is very much presented as boosters would like to see it presented. There are no percentages or proportions. Rather, there are only simple frequencies. We envision a population of 200 women rather than 100 women because differences are in terms of .5%, and we want to present the data in terms of whole rather than half women. The information that is conveyed is that (a) without screening, four women will die (of breast cancer), and with screening, three women will die, and (b) with screening, twelve women go through treatment and are saved, while without screening eight women go through treatment and are saved, while three women are spared treatment but would have gone through treatment had they been screened. So, because of screening, for every woman saved, three needlessly go through treatment.

It is instructive that the NHS declined to publish Pearson's infographic. Might they have been worried that the infographic would have turned women away from screening? In fairness to the NHS, they do provide information about the benefits and risks of breast cancer screening in their pamphlet (National Health Service, 2024: 11) in terms of natural frequencies, but it is in verbal rather than pictorial form. The NHS pamphlet indicates that, for every 200 women, one life from breast cancer is saved, while three women go through treatment for a cancer that would not have become life-threatening, adding up to 1300 lives saved per year and 4000 women going through needless treatment per year.

This is substantial information, but the infographic offers more information: For every 12 women out of 200 who survive breast cancer after detection at screening, 11 would have survived without screening anyway, and 3 would have never known they had breast cancer, and hence would have avoided the needless treatment (Spiegelhalter, 2018). This information might well have turned women away from testing, and that is

https://doi.org/10.1017/bpp.2025.7 Published online by Cambridge University Press

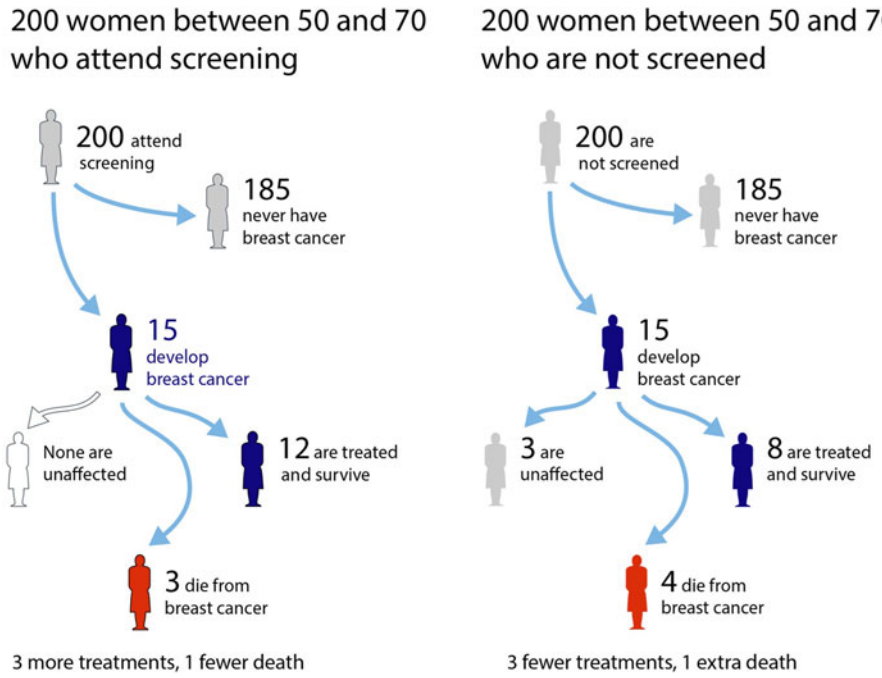

Figure 1. Pearson's infographic for breast cancer screening (Spiegelhalter, 2015).

what the NHS might have wanted to avoid by not printing the infographic. The more women who decide not to go through screening, the more we chip away from the 1300 lives saved.

Here is the core question: Should a public health communicator aim to maximally boost the competence of the public in their understanding of uncertain information? Certainly, they should tell the truth. However, two objectives may conflict when deciding how to present the information. First, they should present it so that there is maximal comprehension in the sense that the public has the fullest understanding of the data. Second, they should present it so that more lives are being saved, or more generally, public health objectives are advanced. Arguably, the infographic may have served the first objective but not the second. When there is a tension between both objectives, we may just want to boost a bit less to save a few more lives.

Self-nudging as boosting

Hertwig *et al.* promote the self-nudging app *One Sec*, which prevents mindless scrolling. Self-nudging and offering people tools to self-nudge is increasing their capacity to self-correct, and as such, it qualifies as a boost. Based on experimental research by Dallacker *et al.* (2023), coauthored by Hertwig, they suggest that lengthening the family mealtime by 50% tends to increase the consumption of fruit and vegetables. In reading the study, it struck me that the consumption of bread and cold cuts, as well as dessert,

https://doi.org/10.1017/bpp.2025.7 Published online by Cambridge University Press

was not affected, and the consumption of sugar-sweetened beverages increased as well. Hence, I am not sure that lengthening the mealtime does improve healthy eating.

But let us grant that adding fruit and vegetables makes for a healthier meal. In this case, the intervention of lengthening the family mealtime by 50% strikes me as a nudge toward healthy eating by the meal planner in the family. It is not the capacities of the children that are enhanced. What is enhanced is the capacity of the meal planner to provide healthy meals. It would not be any less of a boost if the meal planner would serve the meal on smaller plates – which would be a classic nudge of the people at the table by the meal planner. (Hansen and Maaløe Jesperson, 2013 present the small-plate intervention of Wansink, 2006 as a nudge.) In this case, their capacity as a meal planner is enhanced in that they implement a nudge to improve healthy eating in their family.

I can increase my capacity by self-nudging. But equally so, I can increase my capacity by giving license to the meal planner in the family (say my spouse) to implement nudges toward healthy eating. So long as I am the one offering this license, I am still acting as an autonomous decision-maker. Similarly, I may choose to eat in a restaurant or choose to work for an employer who offers a meal plan that is conducive to healthy eating. These are all cases in which I, as an individual, either give myself or others a license to nudge. But I also live in a polity. As a member of the polity, I engage with democratic procedures to put in place a government whose policies will affect and constrain the citizens' agency. One might want to protect a minority who object to such nudges, but this can be done by insisting that nudges be transparent (as interpreted in Bovens, 2008) and easily resistible (Saghai, 2013). If I can boost my capacities by harnessing my weaknesses through a self-nudge, then I don't see why *we* could not boost our *joint* capacities by harnessing our weaknesses through the nudge policies of a duly elected government.

Hertwig *et al.* object to the individualistic nature of nudging. The argument is that nudging affects individual agency. It is my and your decision, say, to be an organ donor at death that is affected by the nudge of an opt-out setting – but not our collective decision. Boosting allegedly affects our collective agency – we are empowered to realize our goals through joint agency. I am doubtful that this is true in the nudge literature at large. For instance, the UK Cabinet's MINDSPACE agenda discusses the importance of messengers in social networks to spread norms. I also don't quite see the collectivist nature in the examples of boosting that Hertwig *et al.* offer. None of these examples seem to boost capacities toward joint agency.

But what I want to underline here is that even if nudges target individual behavior, so long as they are implemented on democratic grounds, they are *warranted* by a collectivist justification. Similarly, more liberty-restricting policies such as banning and taxing certain behaviors may target individual behavior, but, again, if they are implemented on democratic grounds, then they are warranted by a collectivist justification. Weber *et al.* (2023) show in a *Washington Post* study how communities in blue states have much higher life expectancies than very similar neighboring communities in red states because blue states, among other things, enforce seatbelt laws and have higher taxes on tobacco products. What is targeted is individual behavior, but the justification is collectivist. Through bans, taxes, and possibly also nudges, a community takes collective action to restrain certain behaviors to boost public health.

https://doi.org/10.1017/bpp.2025.7 Published online by Cambridge University Press

Once we admit binding or nudging oneself as forms of individual capacity building, then I don't see why we should not appeal to nudges or even more freedom-restricting policies such as seatbelt laws and tobacco taxes as forms of collective capacity building, so long as these policies are under democratic control.

Building a better world

In 1882–3, Thomas Davidson started *Nuova Vita* or the Fellowship of the New Life. This was a salon in Chelsea, London, where intellectuals discussed how to mold a perfect character. The movement was inspired by ideals of a Tolstoy-style simplicity, cultural development, and communal living. Through building a better person, they would create a better world. The Fellowship stands in a line from Ralph Waldo Emerson to John Dewey, among many others.

Bernard Shaw was instrumental in forming a splinter group – the Fabian Society. Shaw did not believe in personal improvement as the route to a better world. He wrote, with his usual biting wit, that certain members of the Society felt that 'the revolution would have to wait an unreasonably long time if postponed until they personally had attained perfection' (Henderson, 1911: 104). The Fabians were a group of Socialist intellectuals focused on building a better society through gradual change. Utopian Socialists (as Shaw would label some members of the Fellowship) were 'to sit among the dandelions' while the Fabians would 'organize the docks' (Armytage 1961: 332). The Fellowship disbanded in 1898, while the Fabian Society is still active as a think tank associated with the Labour Party.

Boosting prides itself on overcoming the individualistic agenda of nudging. Its vision of human perfectibility is very different from Thomas Davidson's, but both would agree that seeing citizens as being educable is instrumental in 'building trust, strengthening communities and fostering collective resilience' (Hertwig *et al.*, 2025). These are lofty ideals, but, with Shaw, I am skeptical about the efficacy of building better societies by building better humans.

Furthermore, doing so might take away the attention from societal injustices. For instance, the idea of extending family meals to fight obesity is interesting, but maybe we should focus our attention on food deserts in poor areas of town and how living in poverty leaves people with no bandwidth for food preparation. The *Bedtime Math* App, which is meant to overcome math anxiety (Hertwig *et al.*, 2025), may be valuable, but unequal funding for public schools may be where social action is needed.

Chater and Loewenstein (2023) distinguish between i-frame and s-frame interventions. I-frame interventions enter at the level of individual agency. Boosting and nudging fit into this frame. Boosting may be more respectful of human agency in that it starts from the premise of human educability, but it remains an intervention at the individualistic level. Chater and Lowenstein argue that i-frame interventions tend to have modest efficacy, and that behavioral public policy should shift toward s-frame interventions, that is, interventions at the systemic level. One might respond that we need all the help we can get to bring about social improvement. However, Chater and Loewenstein argue that i-frame interventions crowd out s-frame interventions. Politicians and business leaders like to push back responsibility to the level of individual agency in order not to have to make systemic changes.

https://doi.org/10.1017/bpp.2025.7 Published online by Cambridge University Press

Labels and moral assessment

Is anything gained from proliferating labels such as nudge, nudge plus, boost, budge, shove, and s-frame interventions? Well, we are prisoners of our own design. If Sunstein and Thaler's Libertarian Paternalism had not been rechristened 'nudge' to feature on the title of their 2008 book, would it have received comparable attention (and a Nobel prize)? Or would libertarian paternalism be gathering dust? Behavioral scientists know all too well that labeling increases uptake. For instance, once the term 'glamping' was born, more people became interested in resorts with lavish outdoor accommodations. (Fritze *et al.*, 2024) Similarly, as soon as we can isolate policy interventions that are attractive for some reason, we put a tag on it. And granted, as we saw in the first section, capacity building does have certain attractive features.

However, when it comes to assessing the moral acceptability of policy interventions, I am not sure that we can do so at the level of these labels. Labels were invented for academic marketing purposes. However, they offer little help for moral analysis: A policy is not morally superior simply because it fits under one label or another. Moral evaluation requires that we look at the complex details of the policy within the environment in which it is implemented.

References

Armytage W. H. G. (1961) Heavens Below - Utopian Experiments in England 1560-1960. London: Routledge and Kegan Paul. https://archive.org/stream/in.ernet.dli.2015.12482/2015.12482.Heavens-Blow-Utopian-Experi-In-England-1560-1960_djvu.txt. [17 April 2025].

Bovens, L. (2008) The Ethics of Nudge, T. Grüne-Yanoff, and S. O. Hansson, *Preference Change. Approaches from Philosophy, Psychology and Economics*, New York: Springer – Theory and Decision Library A, 207–220, Chapter 10.

Chater, N. and G. Loewenstein (2023) "The i-frame and the s-frame: how focusing on individual-level solutions has led behavioral public policy astray", *Behavioral and Brain Sciences*, **46**(e147): 1–84. https://doi.org/10.1017/S0140525X22002023.

Dallacker, M., V. Knobl, R. Hertwig and J. Mata (2023) Effect of longer family meals on children's fruit and vegetable intake: A randomized clinical trial, *JAMA Network Open*, **6**: e236331–e236331.

Fritze, M. P., F. Völckner and V. Melnyk (2024) Behavioral labeling: prompting consumer behavior through activity tags, *Journal of Marketing*, **88**(4): 22–39.

Gigerenzer, G., W. Gaissmaier, E. Kurz-Milcke, L. M. Schwartz and S. Woloshin (2007) Helping doctors and patients make sense of health statistics, *Psychological Science in the Public Interest*, **8**: 3–96.

Gigerenzer, G. and M. Peter Todd, and the ABC Research Group 1999, *Simple Heuristics that Make Us Smart*, New York, NY: Oxford University Press.

Grüne-Yanoff, T. and R. Hertwig (2016) Nudge versus boost: how coherent are policy and theory? *Minds and Machines*, **26**: 149–183. https://doi.org/10.1007/s11023-015-9367-9.

Hansen, P. G. and A. Maaløe Jesperson (2013) Nudge and the Manipulation of Choice. A Framework for the Responsible Use of the Nudge Approach in Public Policy, *The European Journal of Risk Regulation*, **4**(1): 3–28.

Henderson, A. (1911) *George Bernard Shaw – A Critical Biography*, Cincinnati: Stewart and Kidd. https://www.gutenberg.org/ebooks/74591 [17 April 2025].

Hertwig, R. and T. Grüne-Yanoff (2017) Nudging and boosting: steering or empowering good decisions, *Perspectives on Psychological Science*, **12**(6): 973–986.

Hertwig, R., S. Michie, R. West and S. Reicher (2025) Moving from nudging to boosting: empowering behaviour change to address global challenges, *Behavioural Public Policy*. https://doi.org/10.1017/bpp.2025.9.

Herzog, S. M. and R. Hertwig (2025) Boosting: empowering citizens with behavioral science, *Annual Review of Psychology*, **76**: 851–881.

https://doi.org/10.1017/bpp.2025.7 Published online by Cambridge University Press

Kahneman, D. (2011) *Thinking, Fast and Slow*, New York: Farrar, Straus and Giroux.
National Health Service (2024) *Breast Cancer – Helping You Decide*, https://www.gov.uk/government/publications/breast-screening-helping-women-decide/nhs-breast-screening-helping-you-decide [17 April 2025].
Saghai, Y. (2013) Salvaging the concept of nudge, *Journal of Medical Ethics*, **39**(8): 487–493.
Sedlmeier, P. and G. Gigerenzer (2001) Teaching Bayesian reasoning in less than two hours, *Journal of Experimental Psychology: General*, **130**: 380–400.
Sherwood, H. (2019) Led not into temptation: pope approves change to Lord's Prayer, *Guardian*. https://www.theguardian.com/world/2019/jun/06/led-not-into-temptation-pope-approves-change-to-lords-prayer [17 April 2025].
Simon, H. (1957) *Models of Man*, New York: John Wiley.
Spiegelhalter, D. (2015) A visualisation of the information in NHS Breast Cancer Screening leaflet, *Understanding Uncertainty*, Winton Programme for the Public Understanding of Risk June 10, 2015, http://understandinguncertainty.org/visualisation-information-nhs-breast-cancer-screening-leaflet.
Spiegelhalter, D. (2018) Can we say who has died because of the breast-screening appointment error? The Winton Centre for Risk and Evidence Communication, May 5, 2018, https://medium.com/wintoncentre/can-we-say-who-has-died-because-of-the-breast-screening-appointment-error-a2e16ef07be5 [17 April 2025].
Sunstein, C. and R. H. Thaler (2008) *Nudge: Improving Decisions about Health, Wealth and Happiness*, New York: Penguin Books.
Wansink, B. (2006) *Mindless Eating: Why We Eat More than We Think*, New York, NY: Bantham Books.
Weber, L., D. Diamond and D. Keating (2023) How red-state politics are shaving years off American lives, *Washington Post*, 3 Oct 2023. https://www.washingtonpost.com/health/interactive/2023/republican-politics-south-midwest-life-expectancy/.

Cite this article: Bovens L (2025), 'The ethics of boost', *Behavioural Public Policy*, 1–8. https://doi.org/10.1017/bpp.2025.7