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Authors

Newell, Ben
Osman, Magda
Xie, Belinda
[et al.](#)

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Cognition in Context? What Role should Behavioural and Cognitive Science play in Public Policy?

Ben R. Newell (ben.newell@unsw.edu.au)

School of Psychology, UNSW Sydney, Kensington, NSW 2052, Australia

Magda Osman (m.osman@jbs.cam.ac.uk)

Centre for Science and Policy, University of Cambridge, Cambridge, CB2 1TN, UK

Belinda Xie (belinda.xie@pmc.gov.au)

Behavioural Economics Team of the Australian Government, Department of Prime Minister and Cabinet, Canberra ACT 2600, Australia.

Will Mailer (william.mailer@cba.com.au)

Behavioural Science Team, Commonwealth Bank of Australia, Eveleigh, NSW 2015, Australia.

Nick Chater (nick.chater@wbs.ac.uk)

Behavioural Science Group, Warwick Business School, University of Warwick, Coventry, CV4 7AL, UK.

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Introduction

It is now commonplace to hear that addressing the grand challenges of today's society – climate change, obesity, ageing populations, pandemics – requires substantial changes in individuals' behaviour (e.g., Newell & Moss, 2021). This call to arms places cognitive and behavioral science at the forefront of understanding how such widespread change can be achieved. Answering that call has led many researchers to make bold claims for the potential of simple techniques that facilitate positive behaviour change without impinging on people's freedom of choice (e.g., Thaler & Sunstein, 2008). These techniques, collectively and colloquially known as 'nudges' capitalize on promoting 'desirable' options by making changes to the choice architectures (physical, social and psychological) in which decisions are made.

Discussions about the effectiveness of nudges is receiving increasingly widespread coverage in the academic literature as well as in wider general discourse (e.g., Maier et al., 2022). Such debate is welcome and necessary given the importance of the challenges we must address and the potential for the low-cost, quick win policy instruments that nudges seemingly represent. Much of this recent debate has centered on questions about 'what works and when' at the expense of questions about *how* and *why* (Osman et al., 2020). Such focus is understandable; a government that wants rapidly to encourage people to wear masks or stay at home may not care all that much about why a particular intervention works, they just want to know that it will work, and quickly.

In the long-run, however, this approach is self-defeating. For one, if we do not understand why a technique works – and then it ceases to be effective – we are unlikely to know

how to get it working again. More generally, if behavioural scientists wish to offer these techniques to governments and industry, then the onus is on us to provide a stronger theoretical framework and understanding of *why* and *how* nudges *could* work. Despite a general sense that there is something called "Nudge Theory" (e.g., https://en.wikipedia.org/wiki/Nudge_theory), the promise of such a theory seems like a mirage given the assortment of often loosely defined and tangentially related intervention techniques in the nudger's toolbox. This state of affairs can lead to a "throw everything at the wall and see what sticks" approach to testing nudges, rather than one based on strong theoretical predictions (e.g., Milkman et al., 2021).

In addition to these concerns about theoretical coherence, an emerging discussion focusses on the underwhelming impact of nudges and the claim that framing policy problems at the individual level has deflected attention and support away from potentially more impactful system-level policy change (Chater & Loewenstein, in press).

This symposium will highlight these fundamental issues about the role that behavioral and cognitive science can or should play in addressing key societal challenges. It will focus on a future pathway for applying our science and expertise in ways that are most beneficial. The symposium brings together an international panel of scientists and practitioners from industry and government with diverse theoretical perspectives and practical experience in the application of behavioral science.

Speaker Biographies & Talks

Ben R. Newell: focuses on the cognitive processes underlying judgment, choice and decision-making and the application of this knowledge to policy areas including the environment (climate change) and finance (retirement

planning). He is an Academic Advisor to the Behavioural Economics Team of the Australian Government (BETA).

Magda Osman: works in the decision/behavioral sciences, focusing on the translation of science to policy, behavioral change interventions, models of complex decision-making, the status of knowledge, and public understanding of science.

Belinda Xie: is trained in cognitive psychology and works as an Advisor with BETA. She has experience in applying behavioral insights in several contexts including education, health, and finance.

Will Mailer: directs the Behavioral Science Team at Australia's largest bank, Commonwealth Bank of Australia (CBA), and has pioneered the application of behavioral science in the financial services industry to improve the financial wellbeing of customers.

Nick Chater: focuses on the cognitive and social foundations of rationality, with applications to business and public policy. He has served on the advisory board of the Behavioural Insights Team, and will receive the Cognitive Science Society's life-time achievement award, the David E Rumelhart Prize, at this year's conference.

What should we expect from nudges?

Ben R. Newell

I will argue that one of the reasons why nudging has been 'oversold' is the over-simplified and unjustified passive-actor framing of a biased agent who is averse to mental effort and reliant on 'automatic' responses to situations. This characterization leads to inflated claims for interventions offering the promise of achieving effortful behaviour change via an effortless channel. An account which sees agents as active participants in determining their own behaviour sheds a different light on the expectations for nudging (Newell & Shanks, 2023).

Finding Cause in Failure

Magda Osman

As behavioural change technicians, the reality is that we don't really know what we are doing, but we are trying. The practitioner in us needs to show results, but this shouldn't be at odds with the scientist in us that needs to uncover reality. We can only develop an understanding of where to intervene, and how, once we have a better handle of what causal structures we are dealing with, and that means taking an interdisciplinary approach.

How and when to impact policy

Belinda Xie

Insights from the behavioural and cognitive sciences can be incorporated into public policy at different points. Evaluating

'nudges', after many policy settings have been determined, is a relatively common and straightforward option. This option is also often associated with individual-level framing of policy problems. However, there is the potential to amplify the role of behavioural science - by contributing earlier and shaping the policy settings themselves. I will speak about the opportunities and challenges of engaging at different stages of the policy process.

Models of Co-Production

Will Mailer

I will argue that in order for us to develop a better understanding of what, when, how and why nudge results will work at the levels required for meaningful societal impact (and the conditions under which they may fail to work) we will need to develop new co-production models of research between industry, government and academia. Working together in the research process, public policy professionals and researchers can systematically test promising lab/pilot results in different contexts, at different scales, with varying designs and with different populations to understand and report on these boundary conditions for success.

Discussant: Nick Chater

The discussion will be led by Nick Chater who will integrate insights across the four talks, and focus on the relative success of framing behavioral interventions at the individual vs. the system-level.

References

- Chater, N. & Loewenstein, G. (in press). The i-frame and the s-frame: How focusing on individual-level solutions has led behavioral public policy astray. *Behavioral and Brain Sciences*.
- Maier, M., Bartoš, F., Stanley, T. D., Shanks, D. R., Harris, A. J., & Wagenmakers, E. J. (2022). No evidence for nudging after adjusting for publication bias. *Proceedings of the National Academy of Sciences*, 119(31), e2200300119.
- Milkman, K. L., Gromet, D., Ho, H., Kay, J. S., Lee, T. W., Pandiloski, P., ... & Duckworth, A. L. (2021). Megastudies improve the impact of applied behavioural science. *Nature*, 600(7889), 478-483.
- Newell, B.R. & Moss, J.M. (2021). Making it Easier to Take Environmental Actions is Not Enough: Policymakers Must Also Emphasize Why Action is Necessary. *Behavioural Science and Policy*, 7(2), 91-99.
- Newell, B.R. & Shanks, D.R. (2023). *Open Minded: Searching for Truth about the Unconscious Mind*. Cambridge, MA: MIT Press
- Osman, M., McLachlan, S., Fenton, N., Neil, M., Löfstedt, R., & Meder, B. (2020). Learning from behavioural changes that fail. *Trends in Cognitive Sciences*, 24(12), 969-980.
- Thaler, R. H., & Sunstein, C. R. (2008). *Nudge: Improving decisions about health, wealth, and happiness*. Yale, CT: Yale University Press.