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Nudger beware: Diagnosis precedes remedy

Peter D. Lunn[1]*

Abstract
Nudges are one type of remedy to policy problems. A good nudge preserves choice while using science to change choices in a predictable direction. The originators of the concept argue that this is the preferred approach when applying behavioural economics to policy. The present commentary disputes this stance. Although nudges can be beneficial, behavioural economics is uncovering problems in consumer finance, and perhaps elsewhere, where decisions have serious negative consequences and nudging is an insufficiently strong policy response. This is a specific instance of a general mistake, which is to prioritise one type of remedy before obtaining a proper diagnosis.

[1] *Economic and Social Research Institute (ESRI); Department of Economics, Trinity College Dublin*
***Corresponding author**: pete.lunn@esri.ie

Generally speaking, you are more likely to fix a problem with a system if you have an accurate diagnosis. An understanding of the system, knowing with confidence what causes what within it, allows you to identify, mend, replace or remove the right component to generate the desired outcome. This short paper applies this simple approach to the promotion of nudges as appropriate remedies for policy problems, with a focus on consumer protection in financial services. It argues that although nudges can be useful, it is a mistake to prioritise one particular type of policy remedy when applying behavioural economics to policy.

A nudge is an intervention designed to preserve choice while predictably altering choices. Nudges change behaviour by changing the "choice architecture" without employing coercive rules or incentives. For consumers of financial services, nudges usually involve disclosing or making salient key pieces of information at the point of decision. A nice example is provided by Bertrand & Morse (2009), who demonstrated in a field experiment that printing simple calculations and product comparisons on the envelopes given to pay-day loan customers was sufficient to reduce borrowing. For the concept's instigators, who introduced the concept in their book *Nudge* (Thaler & Sunstein, 2008), nudges like this are not merely one way, but the preferred way to apply behavioural economics to policy. Sunstein (2016) most succinctly articulates this: "influence yes, coercion no, at least as a presumption" (p. 189). This position is clear: when trying to fix policy problems, priority should be given to the specific subset of behavioural remedies that preserve choices.

Without doubt, *Nudge* has played a vital role in drawing attention to progress in behavioural economics and advancing its application to policy. The book popularised a body of scientific work that investigates whether behaviour matches traditional (neoclassical) economic models, which assume that individuals engage in rational pursuit of their own self-interest. Through multiple examples, *Nudge* described how real people's behaviour often departs from these orthodox assumptions and argued persuasively that the departures matter when deciding how to tackle policy problems. However, in advocating nudges as preferred remedies, the authors made what amounts to a bold claim about how behavioural economics should be applied and, arguably, an early one too.

Although the antecedents of behavioural economics go back a long way (Simon, 1959), perhaps even a very long way (see Asraf, Camerer & Loewenstein, 2005), the application of behavioural economics (and, more broadly, behavioural science) to policy is a modern development. It is really only in the last decade that traditional, neo-classical economic policy analysis has been enhanced, indeed sometimes supplanted, by alternative empirical methods and models drawn from the behavioural literature. A rapid and ongoing worldwide expansion continues to offer new and insightful approaches to policy problems (OECD, 2017). Against this backdrop, one ought perhaps to be wary of general pronouncements regarding what constitutes an appropriate versus an inappropriate way to apply this evolving science.

When *Nudge* was written, it was understood that behaviour and decision-making sometimes violated neo-classical economic models because of identifiable and empirically replicable phenomena – usually termed "biases". This remains true, but subsequent scientific work has begun to uncover the scale and scope of these violations. Much of this research occurs in applied contexts and includes studies that relate to specific markets and products, some of which involve large financial transactions. As an applied behavioural researcher, my view of what constitutes a reasonable policy response has been altered by awareness and understanding of these empirical findings. New evidence offers new diagnoses and, by

implication, alternative potential remedies.

For instance, in work commissioned by the Central Bank of Ireland, our lab recently reviewed the behavioural literature on features of financial products that cause difficulties for consumer decision-making (Lunn, McGowan & Howard, 2018). The review covered credit, investment and insurance products. Despite working in this area for some years, we were struck by the volume of relevant and high-quality research now undertaken, especially very recently. Many robust findings have emerged that raise serious concerns from a consumer protection perspective.

A large volume of studies expose the limits of consumers' capabilities. Here I briefly highlight just a few. In dealing with credit products, many consumers make large and systematic errors in their judgements of repayments and financial costs (e.g., Soll, Keeney & Larrick, 2013). They are easily influenced by numeric "anchors", such as example or minimum repayments (Stewart, 2009). Other studies find that credit consumers can be swayed by irrelevant information, attracted by immediate but relatively small rewards, and drawn towards salient product attributes that look beneficial but hide costs. These findings suggest that many consumers may, unwittingly, be enticed into paying unnecessarily high amounts to borrow. Similarly, consumers fail to assess the costs of investment products accurately and are prey to the design of superficially attractive structured products that offer poor value (e.g., Hunt, Stewart & Zaliauskas, 2015). Insurance products sold as add-ons cause consumers particular difficulties, but even when the insurance is the main product, consumers make disadvantageous trade-offs between risks, premiums and deductibles (e.g., Bhargava, Loewenstein & Sydnor, 2017).

In our own experiments for regulatory policymakers in Ireland, we have combined empirical tests of the quality of consumer decision-making with incentivised multiple-choice tests of product comprehension. We work with representative samples of consumers, not students, in a society where half the working age population is educated to at least primary degree level. Yet we have found that consumers have fundamental misunderstandings of aspects of pensions (McGowan & Lunn, 2019), car finance (McElvaney, McGowan & Lunn, 2018) and mortgages (Timmons, Barjaková, McElvaney & Lunn, 2019). For instance, we used multiple-choice questions to test people's knowledge about pension contributions. One question required participants to estimate the increase in total contributions to a pension fund associated with a given contribution from take home pay – a central trade-off in the transaction. They were shown a worked example on a pension benefit statement and care was taken to keep the arithmetic easy, so that to arrive at the right answer the experimental participant needed to understand only roughly how much the government subsidy and the employer contribution would contribute. Yet despite this assistance and rewards for correct answers, responses were no better than chance. We have found that such misunderstandings are not confined to pensions, nor to numeric estimations. Consumers often cannot discern the direction of key relationships underpinning a financial product. We found that 30% of a sample of mortgage holders did not understand that shortening the term of a mortgage while keeping the interest rate the same would reduce the total cost – a fundamental property of the product. These studies also tested some nudges designed to improve comprehension or to help consumers to make better financial decisions, recording some useful but modest effects. The nudges were mostly beneficial, but their impacts on the problems were small.

Evidence should, as a rule, change minds. Considering the international work in consumer finance alongside the work I know more intimately from our own lab in Ireland, my opinions about the need for greater consumer protection have strengthened over the past decade. Views seem to be hardening too among regulators I encounter from multiple countries, who worry about inherent unfairness in retail finance and associated financial risks for households. There are concerns too about the source of high profitability and salaries in the sector.

As research findings have accumulated, I have steadily developed a deep scepticism about the power of nudges to provide meaningful remedies to these kinds of policy problems. Nudges diagnose the problem to reside within the consumer, who needs to be pushed back towards the neoclassical model of optimal choice. The evidence, for me, suggests that this is sometimes a fanciful prospect, because the problem lies not within the consumer but within the system. There is a gulf in experience and understanding between the parties to some transactions that leaves consumers with little or no chance of approximating the neoclassical model. This diagnosis does not call for a precautionary, non-interventionist remedy like a nudge, but implies instead a need for full surgery.

From this perspective, a presumptive preference for non-coercive policy responses is not helpful, because the evidence points to deeper problems with more powerful sources than a nudge can combat. In consumer finance, the implications of available behavioural evidence are arguably two-fold: (1) much greater responsibility for consumer welfare needs to be transferred to providers, perhaps through mandated pretesting of products and marketing material; (2) regulators need to take a tough line whenever providers are found to be systematically profiting from poor consumer decision-making – so-called "behavioural exploitation". Both implications necessitate more than changes to choice architecture. They entail changes to the fundamental rules and incentives that govern the system; coercion is exactly what is required. Others have made similar arguments before (e.g., Bar-Gill & Warren, 2008; Bhargava & Loewenstein, 2015).

Does this argument extend beyond consumer finance? On the one hand, financial products are complex and might be considered exceptional – not a hard case to construct. On the other, there are multiple important policy areas that involve complex decisions, such as those that determine environmental or health outcomes. The lessons contained in the behavioural evidence from consumer finance might therefore

apply more broadly. Whether they do is, ultimately, an empirical question. We need more evidence about the quality of decision making and its implications for wellbeing.

Having initially responded to *Nudge* with much enthusiasm, with hindsight I find the presumption against designing, reforming or replacing (or indeed removing) rules unconvincing. I see now that its origins do not lie in empirical evidence, but in American political culture. The USA has led the world in many scientific fields, including behavioural economics, with the result that the initial application of scientific knowledge often displays a distinctly American twist. *Nudge* was born of a political culture obsessed with the role of central government in citizen's lives and less concerned with the roles of other powerful organisations with which individuals and families must routinely do business, often while contending with sharply competing incentives. In political cultures that place greater emphasis on the positive role of government in securing fair dealing and, especially, protecting weaker parties in economic activity, the application of behavioural economics to policy can surely be less cautious.

Nevertheless, one might reasonably be concerned about whether behavioural economics could inspire too much regulation. Oddly enough, there is a defence of the ethics of nudging that offers a parallel argument regarding coercion. Nudgers argue that since there is already a choice architecture in place, often one likely to influence decisions, surely it makes sense to use behavioural science to improve it? Yet, similarly, developed economies already have an enormous number of coercive rules in place, in the form of laws, regulations and guidance for practice. The overwhelming majority were written without regard to recent evidence from behavioural science – perhaps because when they were written such evidence did not exist. So surely it makes sense to use behavioural science to improve them too? Notice that although this entails new regulations, it does not necessarily entail more regulations. The same scientific literature that raises consumer protection concerns in financial services also shows that much of the vast stock of existing regulations could be assessed for effectiveness and, where ineffective, scrapped.

Finally, note that the argument over whether it is right to prioritise non-coercive behaviourally informed policies applies not only to which interventions policymakers might consider (and, hopefully, pre-test!). It is important for the activity of researchers too. There is nothing inherent to behavioural economics that alters the natural way of conducting applied research: define the policy problem, identify objective research questions to diagnose it, select the best method to answer them, design and (where possible) pre-test one or more remedies based on the diagnosis. Prioritising certain remedies risks biasing this objective process and distorting the inference from diagnosis to remedy. Those working in the field for long enough have all observed students and researchers, armed with nudges, surveying the policy landscape looking for somewhere to apply them. This is a poor approach to applied policy research.

Remedies work better when they are matched to a thorough and precise diagnosis, which involves not only identifying the problem but also assessing its gravity. Thus, while aspirin is a useful medicine, when diagnostic tests imply a serious condition, you might want to apply something more powerful. While nudges can be useful responses to a policy problem, when behavioural evidence implies a serious problem for wellbeing, you might want to apply a regulation.

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