

LSE Research Online

[Adam Oliver](#)

Nudging, shoving and budging: behavioural economic-informed policy

**Article (Accepted version)
(Refereed)**

Original citation:

Oliver, Adam (2015) *Nudging, shoving and budging: behavioural economic-informed policy*. [Public Administration](#), 93 (3). pp. 700-714. ISSN 0033-3298

DOI: [10.1111/padm.12165](https://doi.org/10.1111/padm.12165)

© 2015 [John Wiley & Sons Ltd](#)

This version available at: <http://eprints.lse.ac.uk/63904/>

Available in LSE Research Online: October 2015

LSE has developed LSE Research Online so that users may access research output of the School. Copyright © and Moral Rights for the papers on this site are retained by the individual authors and/or other copyright owners. Users may download and/or print one copy of any article(s) in LSE Research Online to facilitate their private study or for non-commercial research. You may not engage in further distribution of the material or use it for any profit-making activities or any commercial gain. You may freely distribute the URL (<http://eprints.lse.ac.uk>) of the LSE Research Online website.

This document is the author's final accepted version of the journal article. There may be differences between this version and the published version. You are advised to consult the publisher's version if you wish to cite from it.

Nudging, Shoving and Budging:
Behavioural Economic-Informed Policy

Abstract

In recent years, behavioural economics has gained considerable traction in the policy discourse, with a particular conceptual framework called libertarian paternalism, which informs nudge policy, dominating. Libertarian paternalism requires policies to protect individual liberty, to be focused specifically upon improving the welfare of those towards whom the intervention is targeted, and to be informed by the findings of behavioural economics. In practice, however, many of the interventions that are being advocated as nudges do not meet all of these criteria. Moreover, libertarian paternalism is not the only framework in which behavioural economics can inform policy. Coercive paternalism and behavioural regulation, frameworks that respectively underpin shove and budge policies, both use behavioural economics to inform public policy, and both face their own set of limitations. This article attempts to bring a degree of intellectual clarity to the potentially important contribution that behavioural economics can make to public policy.

Introduction

In recent years behavioural economics has secured a prominent place in the policy discourse internationally, but behavioural economics as a scientific sub-discipline of economics is of far older vintage, with a history that arguably extends as far back as Maurice Allais' (1953) famous critique of expected utility theory, and for some can even be traced to Adam Smith's (1759) *Theory of Moral Sentiments* (see Ashraf *et al.*, 2005). There are good articles that review the development of behavioural economics (e.g. Camerer and Loewenstein, 2003), books that detail its main findings (e.g. Kahneman, 2011), and collections that demonstrate its relevance for policy design and effect (e.g. Oliver, 2013), yet there is no universally accepted definition of the sub-discipline. That said, the general perception of what behavioural economics entails probably still concurs with Simon's (1987) view that it "is concerned with the empirical validity of [the] neoclassical assumptions about human behaviour [i.e. standard economic theory] and, where they prove invalid, with discovering the empirical laws that describe behavior as correctly and adequately as possible."

Following Simon, as an input into policy it often suffices to view behavioural economics as the study of how people make decisions, and to consider a selection of the different ways that people, usually in controlled settings, systematically and therefore seemingly deliberately deviate from the axioms and assumptions of standard economic theory. These deviations are behavioural economic phenomena, and can be considered as a box of tools for policy makers to use on a case by case basis to attempt to improve the

effectiveness of their policy interventions. In order to begin to assess the possible usefulness of these tools first requires a brief description of those observations that might be most useful in the formation of policy design; namely, present bias, reference points and loss aversion, probability transformation, reciprocity and identity.

First, present bias is the observation that people place a heavy weight on the immediate moment, and quickly and greatly discount all future moments. Discounting, even the particular discounting, sometimes called hyperbolic discounting, implied by present bias, is allowed by standard economic theory, but in general exponential discounting with a fixed rate of, say, 3% or 5% is used in economic analyses. Present bias can, however, lead to cases of dynamic inconsistency, which makes it difficult to predict what people prefer in the future on the basis of their stated preferences now. For instance, a person may state in the present moment that they prefer to receive £50 four weeks from now over £45 three weeks from now, but when three weeks have elapsed the heavy emphasis on the immediate moment might cause that person to prefer to take the £45 rather than wait the additional week for the extra £5. In a food-related example, Read and van Leeuwen (1998) present evidence that people will often choose healthy over tastier unhealthy snacks if they are asked to pre-commit to their choices for consumption at some future date, but, if given the opportunity, many will prefer to switch to the unhealthy snacks at the point of consumption.

In standard economic theory it is assumed that the holder of value is final assets, but behavioural economists have observed that in individual decision making behaviour gains

and losses around some specific reference point, which is usually assumed to be the *status quo* but is susceptible to manipulation, is more important than what one finally ends up with, and that losses matter more than gains (Kahneman and Tversky, 1979; Tversky and Kahneman, 1992). That losses loom larger than gains, generally by a magnitude of approximately two, is known as loss aversion. For example, the disutility of losing £10 will, on average, be of approximately the same magnitude as the utility of gaining £20, a finding that cannot be explained by standard economic theory without assuming infeasible levels of risk aversion over large stakes (see Rabin and Thaler, 2001).

Probability transformation is the observation that people tend to overweight small probabilities and underweight large probabilities, in contrast to the standard economic theory assumption that people will process mathematical probabilities as given. Loss aversion and probability transformation are the two main modifications that prospect theory, the most influential behavioural economic descriptive theory of individual choice, makes to standard economic theory. The combination of decreasing sensitivities to mounting gains and losses around the reference point and the overweighting of small probabilities results in prospect theory predicting a distinct four-way pattern of individual risk attitudes: namely, that people will be risk averse when faced with small probabilities of losses and large probabilities of gains, and risk seeking when faced with small probabilities of gains and large probabilities of losses. People tend to overweight small probabilities because they are particularly sensitive to movements away from certainty. For instance, a 0% to 1% increase in the chance of an event occurring will tend to be

afforded more weight than a 47% to 48% increase in the chance of the same event occurring. Leaving probability transformation to one side for a moment, the shape of the value function under prospect theory is convex from above for gains and concave from above for losses, due to the decreasing sensitivity to both mounting gains and mounting losses. This implies that an individual will be risk averse over gains and risk seeking over losses. However, if an individual overweights a small probability of a gain and this outweighs the effect of the value function in the domain of gains, then risk seeking behaviour will be observed, as in the purchase of lottery tickets; similarly, if an individual overweights a small probability of a loss and this outweighs the effect of the value function in the domain of losses, then risk averse behaviour will be observed, as in the purchase of insurance. The underweighting of large probabilities reinforces the risk attitude predictions given by the value function in the domains of both gains and losses. Prospect theory therefore allows an individual to both gamble and insure, a common general observation that standard economic theory has always struggled to explain.

The standard model of rational choice also struggles to explain observations that run counter to its assumption of selfish utility maximisation, at least where it is also assumed that utility increases with money holdings. Such observations can, for instance, be found in ultimatum games, an early example of which was reported by Guth *et al.* (1982) who convened twenty-one pairs of respondents to partake in an experiment. Each pair of respondents comprised a donor and a recipient. In ultimatum games, donors are given a money amount and are asked to allocate a share of the amount that they are given to their recipient. If the recipient accepts the share, then both donor and recipient go home with

these respective allocations, but if the recipient declines then both parties go home with nothing. According to standard economic theory, the donor should offer a very small share because he ought to want to retain as much of the money as possible and, for the recipient, anything ought to be better than nothing. Guth *et al.* observed that the mean donor offer was 37% of the stake, far higher than that which would be expected from the postulates of standard economic theory, a finding that they replicated closely in an experiment undertaken one week after the first. Indeed, others subsequently observed that it is not untypical for mean offers to exceed 40% (see, for example, Kahneman *et al.*, 1986). If the donor offers a derisory share, the recipient will often reject the allocation, and donors tend to know this: that is, recipients will often rather pay a penalty in order to punish the donor than be, from their perspective, exploited. The threat of negative reciprocity from the recipients may therefore prompt the donors to demonstrate positive reciprocity from the outset. It is plausible that some form of reciprocity heuristic is hardwired within people (and, arguably, other primates – see, for example, de Waal, 2006) and is triggered in certain contexts, and that this outweighs considerations of pure money gain.

The final challenge to standard economic theory described here is most recently associated with the work of Akerlof and Kranton (2010), who propose that people experience positive utility from working for or being associated with an organisation or a set of institutions with which they identify, and negative utility if they perceive themselves to be outsiders. Identity utility is normally not included within the formal framework of neoclassical economic theory, an omission that Akerlof and Kranton have

attempted to correct. According to Akerlof and Kranton, our identity defines who we are and will influence our behaviours, because different behavioural norms are associated with different identities. With enlightened management, the concept of identity utility could potentially offer an inexpensive way of motivating individuals to change their behaviours, and is associated with reciprocity insofar as the tendency towards fair transaction is likely to be most pronounced among those with a shared identity.

As noted at the outset of this article, it is only in recent years that behavioural economic observations have been applied substantively to practical policy concerns. These policy efforts have been underpinned by philosophical frameworks developed by some of the world's leading behavioural economists, and include asymmetric paternalism, formulated by Camerer *et al.* (2003), and libertarian paternalism, developed by Thaler and Sunstein (2003; 2008). These two approaches focus upon influencing behaviour on the demand-side through the consumer or the citizen, and both are minor modifications of welfare economics in that they retain wellbeing as the normative criterion but detach the achievement of wellbeing from individual choice. However, libertarian paternalism has been much the more influential in policy circles, partly perhaps because the policies aligned to it have been assigned a catchy buzzword – nudges.

Thaler and Sunstein use the term libertarian to modify the word paternalism in order to signify that their approach is liberty-preserving. In nudge policy, there should be no burden on those who choose their pre-existing behaviours rationally and thus wish to continue with those behaviours. Therefore, the approach does not allow regulation or

bans. The approach is only paternalistic in the sense of wanting to motivate behaviour change among those who, on reflection, would have liked to have made different choices for themselves. That is, a nudge is meant to bring the instantaneous decisions of those who think that their non-reflective actions are irrational into better alignment with their deliberative preferences, and therefore relies on the assumption that deliberative preference is necessarily rational. Thus, the focus is on reducing negative externalities – the longer term harms that people impose on themselves through their own ill-considered automatic decisions. Libertarian paternalism rules out using significant financial incentives or overt persuasion to change behaviour. The essence of the approach is that behavioural economic insights, such as those summarised above, can and should inform the design of what Thaler and Sunstein call the choice architecture, or in other words, the context or the environment, so that more people make automatic decisions that, on reflection, they would like to make and yet, due to bounds on their rationality and human error, ordinarily fail to do so.

The concept of libertarian paternalism and its application in the form of nudges has attracted the attention of governments in a number of countries, but none more so than that of the United Kingdom (UK), where a right of centre Coalition Government lauded the apparent promise of the approach to offer non-regulatory inexpensive demand-side solutions to some of the most profound problems in contemporary societies. “This new approach”, according to a 2010 government report, “represents an important part of the Coalition Government’s commitment to reducing regulatory burdens on business and society, and achieving its policy goals as cheaply and effectively as possible”

(Behavioural Insights Team, 2010). Soon after being appointed Prime Minister in 2010, David Cameron established the Behavioural Insights Team (BIT), colloquially known as the Nudge Unit. Whether or not this moniker is appropriate requires an assessment of whether the interventions that were advocated as nudges by the BIT comply with the original requirements of libertarian paternalism laid out by Thaler and Sunstein.

Libertarian Paternalism and the BIT Proposals

As noted above, behavioural economic phenomena are classifications of innate human decision making behaviour. That is, we do not choose to be, for example, loss averse; we just are. Insofar that libertarian paternalists advocate the use of behavioural economics to redesign contexts such that people will often make different decisions, the approach relies on automatic choice. There has been some debate on whether nudges necessarily have to be covert to fulfil the role of automatic prompts. For example, Sunstein (2013) argues that what is at stake is whether an intervention is visible. However, an intervention, such as, for example, a particular form of food labelling may be physically visible whilst the motivation behind its particular format may remain covert. The reasons for the form that nudges take have to go unnoticed by those to whom they are targeted because if the reason is overt the motivation will be questioned, and they would risk losing their effect (Wells, 2010).

Bovens has argued that this covert aspect of nudging may not be problematic, in that ethical acceptability does not require governments to explain that an intervention has been implemented, particularly if full transparency limits its effectiveness, so long as those being nudged have the ability to discern its implementation (House of Lords, 2011). One can challenge this viewpoint, however, by noting that an inability to discern – i.e. the observed bounds on human rationality – is the reason that behavioural economics as a subdiscipline of economics and nudging as a behavioural economic-informed policy approach, exist. If people acquiesced to nudging as a general principle, some may argue that the motivation for each individual intervention could legitimately remain covert. However, behavioural economic policy potentially covers a large range of qualitatively different interventions, from the profound and, for many, unacceptably intrusive (e.g. defaulting people into actions, such as organ donation, that they would rather not do but are not fully cognizant that they are now enrolled for), to the seemingly innocuous (e.g. moving food items around on canteen shelves). Even if people were canvassed for their views on the broad acceptability of nudging, they might not fully appreciate the extent to which the approach could plausibly offer governments the legitimacy to manipulate behaviour. In democracies, where public policy makers ought to be held up to standards of transparency, requiring public permission at only the general policy level would allow governments much scope to overstep what many might feel to be the limits of their authority.

Leaving the overt-covert debate hanging, three core features of libertarian paternalism, each represented on an axis in the three dimensional diagram in Figure 1, are that it

preserves liberty and is therefore antiregulatory, that its applications are informed by behavioural economics rather than the standard model of rational choice, and that it addresses internalities rather than externalities.

[Insert Figure 1]

A classic nudge would be placed at the origin in Figure 1, which indicates that the intervention would preserve liberty, be informed by behavioural economics, and be focussed on addressing negative internalities. An example of such an intervention might be to suggest to supermarkets that they voluntarily place apples rather than chocolate bars at their checkout counters – in such circumstances, a shopper is not required to buy the apples but might, on reflection, prefer to buy an apple rather than a chocolate bar, and is more likely to now buy an apple because the presence of the apple near to the checkout has invaded his immediate and automatic decision making mental apparatus. Movements up the vertical axis in Figure 1 indicate that an intervention adopts a more regulatory stance, movements along the horizontal axis indicate the extent to which the intervention is focussed upon addressing externalities rather than internalities, and movements along the axis that is diagonally depicted show the degree to which the intervention is informed by rational choice theory. Nudge policies should therefore cluster around the origin, such as is indicated by the box in Figure 1.

The three dimensional space can be used to give a visual representation of the extent to which actual interventions that are purported to be motivated by the nudge approach align

with the requirements of libertarian paternalism. Soon after it was established, the BIT released a discussion paper on behavioural interventions intended to improve personal health-related choices (Behavioural Insights Team, 2010). Figure 2 depicts a selection of these interventions, where the top left corner of each box is assigned a number that aligns with the numbered interventions listed in Table 1. The distances from the origin on each dimension rely on the author's judgement, informed by the reasoning given in Table 1. Others may place each intervention at different points on the dimensions, but the intention is to offer a tool with which explicit balanced judgments can be presented to give an indication of the extent to which the approach that was embraced in David Cameron's rhetoric has informed the interventions proposed by the unit that was formed partly on the basis of that rhetoric.

[Insert Table 1 and Figure 2]

From Figure 2, it is reasonably clear that while the BIT's proposed health-related interventions do not tend to rely on regulation, their use of behavioural economics is sometimes not obvious and the stated motivation for them often appears to focus upon addressing externalities rather than internalities. The drift away from the original nudge requirements breeds confusion. It is perhaps understandable, however, that due to the reluctance shown by many contemporary politicians to risk accusations of nannyism, they do not wish to create the perception that they are interfering in personal lifestyle choices, unless, of course, those choices impose real or imagined harms on others. The BIT has proposed interventions in areas other than those relating to health, including personal

energy use (Behavioural Insights Team, 2011). These interventions, which are targeted at improving environmental consciousness and reducing carbon emissions, are principally focused on externalities, although some consideration of internalities does come into play since individuals can save themselves money by acting upon at least some of the proposed initiatives. Similar to Figure 2 and Table 1 for health, Figure 3 depicts a selection of these energy saving interventions, where the top left corner of each box is assigned a number that aligns with the numbered interventions listed in Table 2.

[Insert Table 2 and Figure 3]

By and large, self-proclaimed nudgers are often not, strictly speaking, nudging. This matters because it draws a mist over the intellectual clarity of nudge policy. That being said, a reasonable argument can be made that behavioural economic-informed policy might in any case be more appropriate and profound if its parameters were quite different to the constraints laid out by libertarian paternalism.

Coercive Paternalism

Libertarian paternalism is a form of means paternalism: the approach is intended to steer individuals towards what they themselves judge to be best for their wellbeing, without forcing anyone to do anything. Ends paternalism is a stronger form of paternalism that pays less respect to autonomy. The foremost recent exposition of ends paternalism,

Conly's (2013) *Against Autonomy*, is, like libertarian paternalism, motivated at least in part by what she considers to be behavioural economic-motivated errors in people's choices, but by retaining autonomy of choice, she believes that libertarian paternalistic interventions will be insufficiently effective. The libertarian paternalists, for their part, wish to protect choice because they do not believe that all apparent behavioural economic-informed behaviours are necessarily mistakes. For example, Sunstein (2013a) argues that with respect to present bias, our short term goals might be a large part of what makes life worth living. Conly nonetheless calls for the explicit regulation of individual behaviours in cases where the broadly considered benefits of the regulation to the individuals themselves are perceived to outweigh the broadly perceived costs. For instance, Conly advocates for a ban on smoking. Interventions of this type are sometimes referred to as shoves.

As with libertarian paternalism, the basic tenets of coercive paternalism can be represented in a three dimensional space. This is done in Figure 4, where the liberty to regulatory axis of Figure 1 is inverted to depict that a shove is more forceful than a nudge. In Figure 4, shoves cluster around the origin, with a ban on smoking represented by the box depicted.

[Insert Figure 4]

Conly states that legislation should not control most aspects of life, but "should intervene when people are likely to make decisions that seriously and irrevocably interfere with

their ability to reach their goals, and where legislation is the least costly thing that can reliably prevent them from making these bad decisions.” It is clear that she wants to forcibly constrain certain activities, and maintains that some behaviours, such as cigarette addiction and those relating to obesity and insufficient retirement savings, are themselves liberty inhibiting if one’s lifetime goals are, as she maintains, health and financial security. The examples Conly gives to support her thesis are, however, somewhat confused. As noted above, she recommends legislation against the smoking of cigarettes, which can indeed be interpreted as demand side paternalism, but further recommendations, such as regulation against mortgages offered at greater than fifty percent of a person’s income and, in particular, a ban on trans-fats above maximum acceptable limits, whilst perhaps laudable, appear to be regulations against potential supply side harms and are therefore focused on ameliorating negative externalities. Few gain enjoyment from consuming trans-fats in and of themselves; they just happen to be placed in some of the foods we eat, partly because, when frying food, they can be used for a relatively long time before turning rancid. Thus, regulating their use seems quite uncontroversial, apart from the perspective of fast food restaurants, since consumer freedom is not diminished in consequence. Banning cigarettes, even if one thinks it justified, does, however, curtail an enjoyment for many, even if this enjoyment is usually tied to an addiction.

Coercive paternalists take the view that by preventing people from undertaking some of the activities that they would otherwise do in the immediate moment they serve to promote the satisfaction of long-term desires. Therefore, their argument is heavily

motivated by the wish to counter present bias, although their policy response requires a great deal of confidence in deciding what people most value over their life course. For example, in relation to cigarettes, and to revisit Sunstein's (2013a) contention noted earlier, it seems quite plausible that for at least some smokers the enjoyment of years of cigarette consumption outweighs the higher risk of suffering from illness and the possible shortening of life when elderly. To inveigh that smokers impose greater costs to health services than non-smokers is to create an externality argument, and thus extends beyond the remit of coercive paternalism. Bad habits, if they can be perceived as such, do not necessarily ruin the whole of a person's life and intolerance towards them may run the risk of creating an intolerant society.

To reiterate, however, Conly states that a paternalistic state should restrict itself to those measures where the benefits of legislation and regulation outweigh the perceived costs, a broadly defined cost-benefit approach. Since she does not attempt to quantify costs and benefits, there is inevitably a degree of arbitrariness in her approach. For example, Conly states that alcohol consumption is acceptable because it is entrenched in many cultures, and it would be difficult to get people to stop drinking it. Although many important costs and benefits, in all areas of policy, are difficult to quantify, and therefore a general rather than a quantifiable approach to cost-benefit analysis is arguably required, this does inevitably lead us into the realm of highly subjective judgment when considering trade-offs. Moreover, this kind of approach requires broad agreement on what constitutes objective wellbeing, a challenge that Conly recognises but meets by insisting that health and prosperity are the ultimate ends. When one considers all relevant trade-offs – e.g.

more lifetime health versus greater enjoyment in the moment, enhanced financial security versus taking the risks that are sometimes necessary to enable a rich and varied life, increasing happiness for oneself versus keeping a promise made to another – there may not be an objective wellbeing on which most of us can agree.

Conly further contends that forcing people to perform actions for their own sake is less of an imposition than forcing them to act for other people's sake, a debatable proposition that is perhaps contradicted by Conly herself when she maintains that regulating against harms is relatively uncontroversial.

Behavioural Regulation

The predominant stated motivation for many of the BIT's supposedly nudge proposals is that they can save (e.g. NHS) money and/or reduce (e.g. environmental) harms for others. Moreover, as earlier noted, several of Conly's proposals appear to be behavioural economic-motivated regulations against supply side externalities. There is an easy explanation for these stated motivations: in western societies, it is likely that people feel more comfortable with government action that limits the extent to which people harm others, in essence, the application of Mill's (1869) harm principle. This begs the question that if people are imposing negative externalities on others, why should we feel beholden to protect their liberty? Some have criticised the nudge approach for potentially crowding out more effective regulatory measures but without acknowledging explicitly the

contribution that behavioural economics can make to deliberations on regulation (House of Lords, 2011; Marteau *et al.*, 2011). The use of behavioural economic phenomena to inform open regulation against harms imposed by the supply side offers an alternative to using these phenomena to manipulate or coerce the demand side. Behavioural economic-informed regulatory interventions have been labelled as nudges (Oliver, 2013).

Neither libertarian paternalists nor coercive paternalists generally want to rule out regulations against harms to others. Sunstein (2013b), for example, advocates for more simple government regulation that is informed by behavioural economics and thus contends that the argument should not be about more or less regulation but rather better regulation, and, as noted, Conly (2013) believes regulating against harms is non-contentious. The reach of these paternalists, soft or hard, therefore tends to be relatively statist compared to the nudge approach, which does not prescribe public policy interventions targeted at personal lifestyle choices so as to reduce negative externalities. Nudge policy limits its focus to countering the profit maximising behavioural economic informed harmful manipulation of consumers by private organisations by openly regulating against these activities, or by requiring organisations to use behavioural economic-informed interventions that are expected to be beneficial to their clientele.

Such an approach will have its critics, and not from the industry perspective alone. Dworkin (1983), for instance, writes that “we might ban cigarette manufacturers from continuing to manufacture their product on the grounds that we are preventing them from causing illness to others in the same way that we prevent other manufacturers from

releasing pollutants into the atmosphere, thereby causing danger to members of the community. The difference is, however, that in the former but not the latter case the harm is of such a nature that it could be avoided by those individuals affected, if they so chose. The incurring of the harm requires the active cooperation of the victim. It would be a mistake in theory and hypocritical in practice to assert that our interference in such cases is just like our interference in standard cases of protecting others from harm.” In this statement, Dworkin appears to underestimate the extent to which people may be bounded by their own rationality. A complete ban on the production of cigarettes may indeed be extreme from the budget perspective, but if cigarette manufacturers knowingly manipulate the unconscious choices of consumers implicitly according to the findings of behavioural economics in order to increase sales and profits and effectively harm consumers in the process, then an argument can be made that these practices ought to be regulated. Indeed, cigarette advertising is regulated essentially for these reasons and similar arguments can be made against pay day loan companies, mortgage lenders, food and drinks manufacturers and a host of other industries.

The fundamental requirements of budget policy can also be depicted in a three dimensional space. Figure 5 mirrors Figure 4, except that the internalities to externalities axis is inverted. Classic budgets are regulations against harmful, behavioural economic-informed supply side activities, and will cluster around the origin in Figure 5.

[Insert Figure 5]

Unlike nudges but in common with shoves, the design of budges would not necessarily be informed by behavioural economics, but knowledge of the behavioural economic findings is required in order to detect when private sector interests are using them for their own ends. For example, as alluded to earlier, confectionary companies, due to their implicit knowledge of the power of present bias and salience on individual choice behaviour, have traditionally paid supermarkets substantial amounts of money to display their products next to cashier counters. If policy makers recognised that these behavioural economic characteristics were being exploited so as to encourage people to buy more of these products than is good for them, they would have an intellectual justification for regulating against this activity. In other instances, although not a requirement for budge policy, the design of the regulation itself can also be informed by behavioural economics so as to attempt to strengthen its effect. For example, pay day loan companies, which incidentally implicitly use present bias by de-emphasising interest rates and extolling the pleasures of purchasing to attract clientele, could be ranked against each other on a public website according to their services and practices, with a salient reference point emphasised to demarcate good from bad practices, and the companies could be mandated to reveal explicitly their ranking on their own publicity materials. Companies (and potential clientele) would then be able to discern whether their service falls short of the reference point. If so, this would indicate a loss of reputation. Due to loss aversion, each company may be particularly motivated to try to avoid the possibility that their organisation will be cast in such a light.

As with most forms of policy intervention, behavioural regulation will incur financial costs relating to design, implementation, monitoring and evaluation, and thus analysis would need to discern whether the benefits of a particular measure justify its costs. As with coercive paternalism as outlined by Conly, a general rather than definitively quantifiable cost-benefit approach is likely to be the sensible course to take, but the trade-offs will again inevitably be subjective, and business interests, often with powerful lobby arms, will be motivated to emphasise the real and imagined economic growth and innovation implications of additional regulation. In the UK context, for instance, tobacco companies had some success in stalling regulation for plain packaging on cigarette cartons, and cheese and chocolate manufacturers have resisted mandatory standardised food labelling on their products. Moreover, regulation, irrespective of its actual overarching consequences, stirs ideological opposition, often among powerful decision makers, and thus there are barriers to this form of intervention that should not be underestimated. That being said, some of the BIT's proposed nudges would be better classified as nudges, and the same can be said for several of Conly's proposed shoves, and, as earlier mentioned, paternalists as diverse as Sunstein and Conly have themselves stated that they are in favour of sensible regulation against harms. Thus, at least some applications of behavioural regulation are likely to attract a broad coalition of support.

Conclusion

Libertarian paternalism, a behavioural economic-informed policy concept that has captured the attention of many in the academic and public policy communities over recent years, postulates much that is contentious. Perhaps the most important debating point is whether it is legitimate for governments to introduce and extend behaviour change interventions that have motivations that are hidden from those towards whom they are targeted, particularly when those interventions are intended to address internalities. Libertarian paternalists maintain that this is permissible if people are merely being nudged towards actions that their deliberative selves would choose, but others contend that there is no guarantee that deliberative preferences exist and that there is thus little credence to the notion that policy makers can make statements on what people, deliberatively, want (Sugden, 2009). Coercive paternalism and behavioural regulation, approaches that have in recent manifestations also been informed by behavioural economics, both call for more explicit interventions than does libertarian paternalism; moreover, it is probable that both would be more effective. However, these approaches are also open to criticisms, coercive paternalism for being too intrusive with respect to personal lifestyle decisions and for requiring a dogmatic view on what is good for people, and behavioural regulation for being politically naïve, in a world where many hold the view that private sector autonomy is necessary for economic growth, and where political parties rely on private sector support for electoral success.

These policy frameworks are driven by different ideological convictions. Although they can be considered mutually exclusive, it is not necessary to think them so. Leggett (2014), for instance, writes that a combination of regulation of the demand side, of the

supply side, and of educating people about behaviour change strategies so that they can push back against these when they feel as though they are being manipulated add up to what he calls a social-democratic approach to behaviour change. Others who have written on behavioural economic-informed policy embrace different approaches. Mols *et al.* (2014), for instance, resonating with the work of Akerlof and Kranton (2010), prefer an approach whereby behaviour change is motivated with open persuasion tactics that align with the individual's existing identity and goals. Alternatively, Sugden (2013) maintains that behavioural welfare economics, of which all of the frameworks discussed above belong, tend to keep wellbeing as the normative criterion, but detach the definition of wellbeing from individual choice. Sugden, in believing that we cannot really hope to understand the reasons for why people choose the way they do, advocates the opposite approach by proposing that opportunity (i.e. extending the range of options on offer) should be the normative criterion, without necessarily claiming that increases in opportunity improve wellbeing.

Whichever approach one prefers, there ought to be clarity and consistency in and between what one is proposing and what one is doing. Many purported nudge interventions in UK policy do not seem to comply with the original tenets of libertarian paternalism. In particular, they often seem to be motivated by externality concerns, and they sometimes appear to be informed by rational choice theory. Whether or not one agrees with the approach adopted by governments, they ought to be held accountable for their rhetoric. Part of the confusion in the area of behavioural economic policy is caused by the popularity of the term, nudge, such that a whole spectrum of policies, some of which are

informed by weak evidence bases and others of which are divorced from the original requirements of libertarian paternalism, are being labelled under this generic term. The rise of behavioural economics in policy discussions over the last few years has been good for the discipline, and for this much credit has to go to the libertarian paternalists. However, the nudge label is being oversold by many researchers, and overbought by some in policy, such that the intellectual clarity of the approach has been lost. This is a mistake, because it risks trivializing the substantive practical, albeit still largely potential, contribution that behavioural economics can make to policy design and implementation.

Acknowledgment

I thank two anonymous referees for helpful comments on an earlier version of this article.

Table 1: Selected BIT Health Proposals

1. Commitment devices, otherwise known as default contracts, to incentivise smoking cessation. These interventions require smokers to voluntarily pre-commit small amounts of their own money to a smoking cessation programme, which is returned to them if they remain abstinent. Getting people to pre-commit even small amounts of money may be particularly difficult in relation to those groups where smoking is the most prevalent (i.e. the poor), but the intended behavioural motivation is that people will not want to lose even small amounts of money, and thus, via loss aversion, will be keen to meet the programme's objectives. The intervention is therefore behaviourally motivated, is non-compulsory, and, assuming that those who enrol in these types of programmes wish to change their behaviours, is focussed on addressing negative externalities (although a concern with saving money for the National Health Service (NHS) by reducing smoking rates lends an element of externality consideration to this intervention). Enrolment into commitment devices appears to require more conscious deliberation than a simple alteration of the choice architecture entails, but in terms of the three dimensional space, it conforms reasonably closely to the characteristics of a nudge.
2. In order to increase the number of people on the organ donor register, the BIT proposed piloting a move from an opt-in system to one of prompted choice, where people have to state whether or not they wish to be a donor at the time of purchasing or renewing their driving licence. This change in the default position, a form of reference point, has had some success in increasing the number of people on the register in other contexts, and is behaviourally motivated. An important aside, however, is that requiring next of kin consent for the use of organs at the time of death reduces the effectiveness of prompted choice to increase the number of available organs. At face value, prompted choice preserves autonomy in that people are free to refrain from being on the register if they so wish, although many might feel that they are being somewhat coerced by the use of such a mechanism and a national roll-out of the intervention would presumably require regulation. The policy appears to be driven by externality considerations (i.e. others may benefit if one registers), although considerations of reciprocity may play a role (i.e. if more people register, we all may benefit).
3. The BIT suggested that teenagers mentor toddlers in an attempt to reduce the rate of teenage pregnancy. Presumably the targeted teenagers would be able to opt-out of the programme if they so wish (and thus, as with commitment devices, enrolment appears to rely on conscious choice); if so, autonomy is preserved. Moreover, the intervention, although driven to some extent by externality concerns, addresses negative externalities under the arguable assumption that the young women in question, on reflection, genuinely would rather not have a child during their teenage years. However, the intervention seems only tenuously linked to behavioural economics, with a possible association with Akerlof and Kranton's (2010) work on identity economics, where a closer identification with a particular situation might be expected to lead to a change in individual behaviour (i.e. greater identification with

all that is required of a mother may motivate some teenagers to more carefully avoid pregnancy). That said, this particular intervention may equally be informed by rational choice theory, where more knowledge and information might lead to different decisions.

4. Due to some evidence that students think that their peers drink more alcohol than they actually do, and that this in turn increases average drinking levels in this population, the BIT proposed to communicate accurate drinking levels to university students. Although the inaccurate perceptions of alcohol consumption imply a misaligned reference point and the intervention perhaps involves correcting this, the provision of better information also appears to appeal to rational decision making. Moreover, although there is some concern with negative externalities, the thrust of the approach as stated by the BIT focuses on addressing externalities, in particular costs to the NHS. The intervention does not require regulation and leaves students at liberty to drink what they wish, but one may then question whether the intervention would address substantially the problem (if excessive drinking by students is indeed a problem) to which it is targeted.
-

Table 2: Selected BIT Energy Saving Proposals

1. Upfront incentives for environmentally beneficial behaviour, which may appeal to notions of present bias by offsetting the immediate costs associated with being more energy conscious. For example, the BIT propose a one month holiday from council tax payments (the tax that UK residents pay to their local government authorities for the provision of services, which varies across geographical areas but is typically in the region of £100 per month) for those who agree to insulate their lofts. Similarly, the government introduced a policy of providing financial support to those choosing to install renewable heating technologies in place of those that use fossil fuels. As with the health-related incentives, these interventions do not seem to be targeting non-deliberative decision making, a key feature of libertarian paternalism, and some may contend that they introduce an element of coercion.
 2. The BIT highlight the potential usefulness of smart electricity meters, which offer a reading of the average energy consumption of similar households in addition to one's own electricity use. This additional information can be ignored and therefore may not impinge substantially upon autonomy, but it could reasonably be contended that the smart meters are merely providing additional information and are hence forms of persuasion rather than nudges. However, it could equally be argued that the average consumption level of similar households is behavioural economic informed in the sense that this may provide a reference point, against which the consumer might perceive higher energy consumption as a loss, motivating them to use less electricity.
 3. The government is experimenting with changing default settings in heating and cooling systems in its own departmental offices. Changing the default requires regulation of sorts, but if the employees within these departments have the capacity to override the default settings and face no internal or external sanction should they wish to do so, then their autonomy is for the most part retained, and, as already noted, default manipulation is behaviourally motivated.
 4. The government is publishing league tables that show the extent to which each department is demonstrating progress towards a pan-government energy saving target. The autonomy of each department appears compromised by this initiative in that their performance is involuntarily recorded for all to see, but the intervention is behaviourally informed if, as seems reasonable, each department perceives average (or higher) performance as the reference point, and any performance lower than this as, in some sense, a loss.
-

Figure 1: The Libertarian Paternalism Space

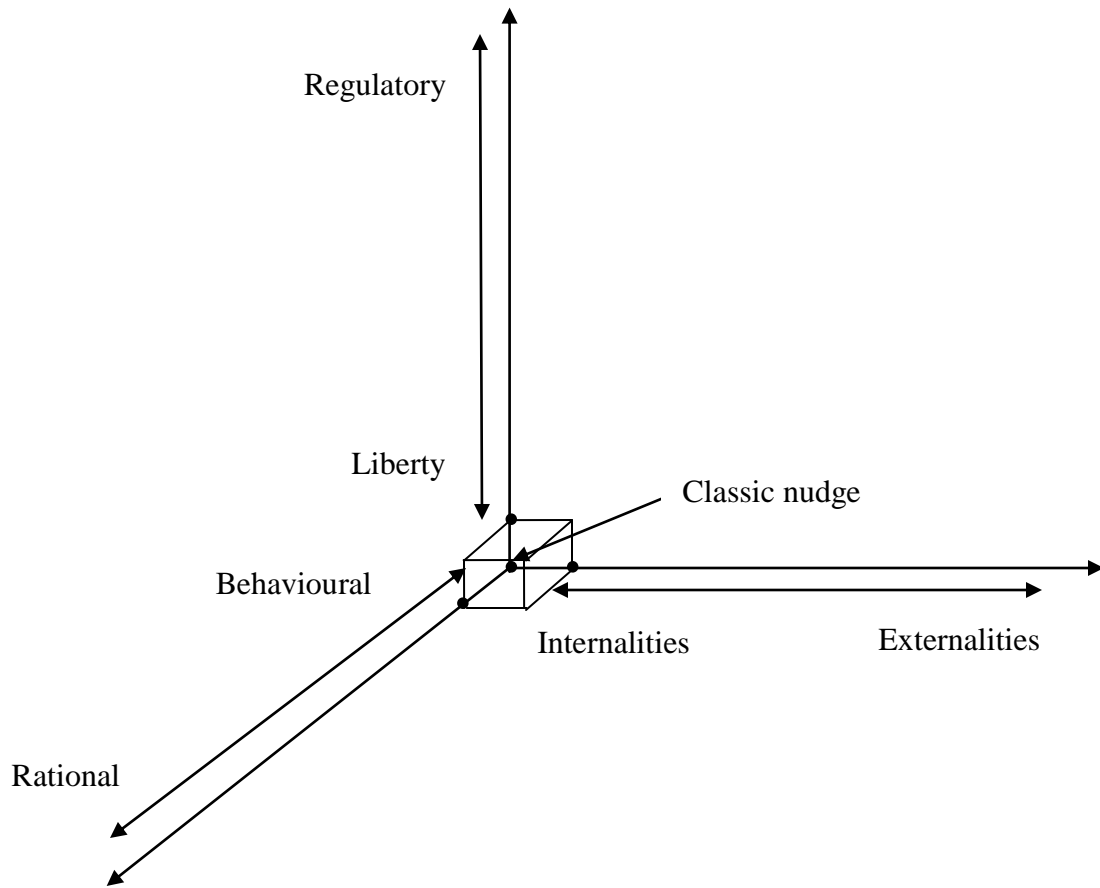


Figure 2: Selected BIT Health Proposals

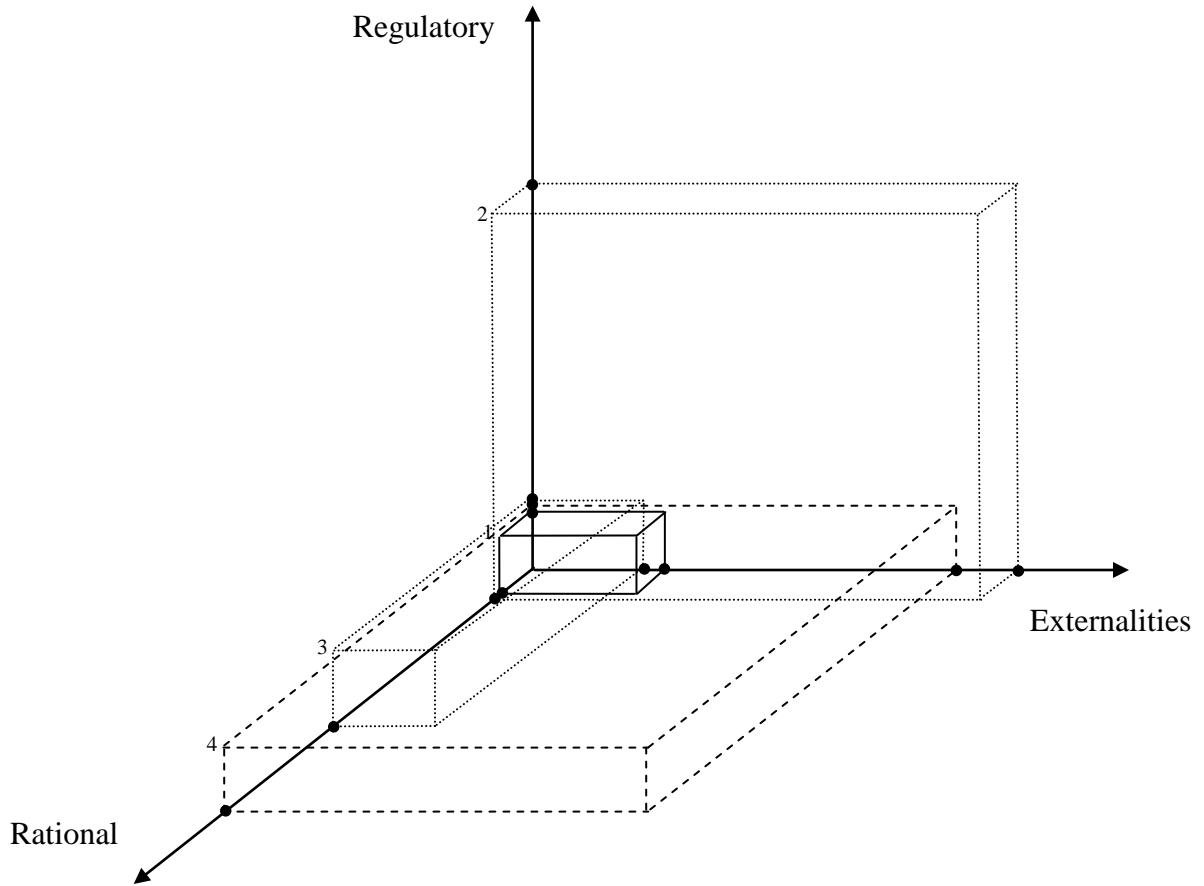


Figure 3: Selected BIT Energy Saving Proposals

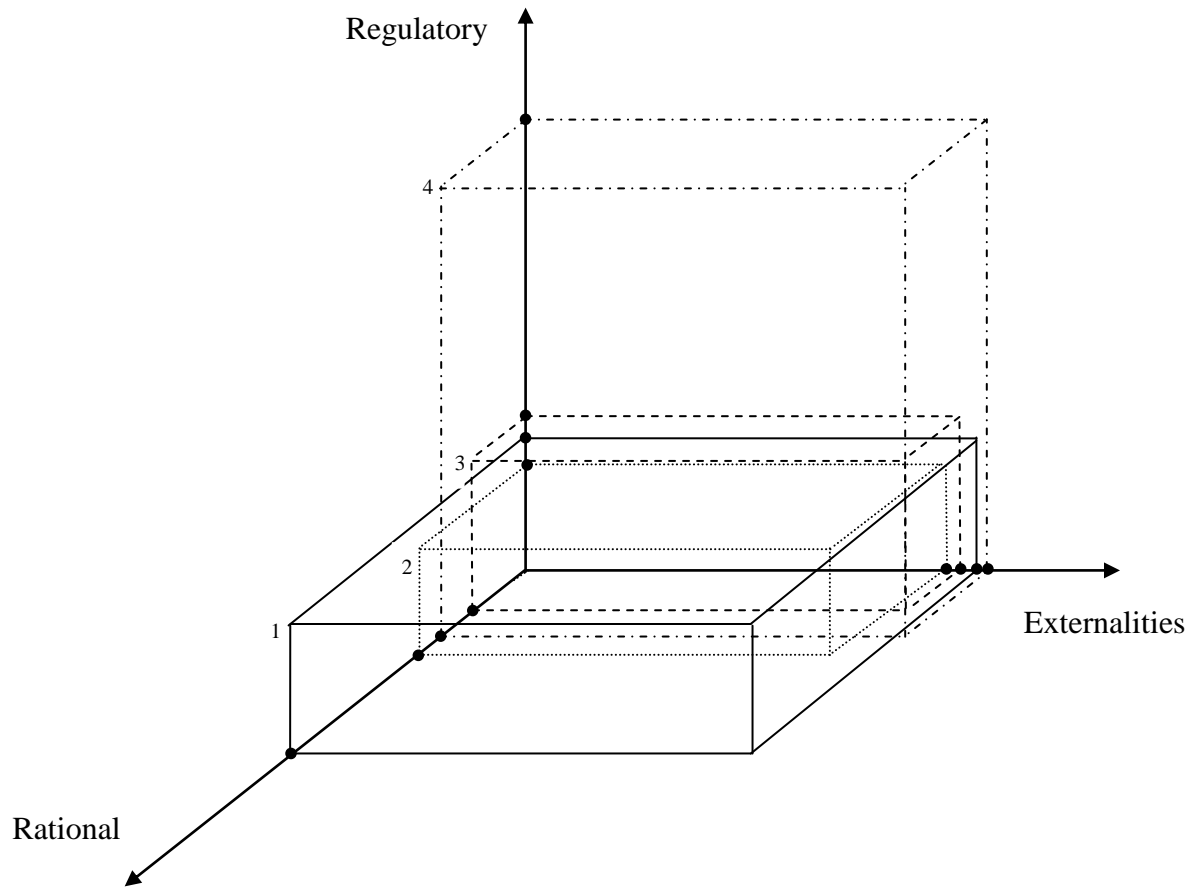


Figure 4: The Coercive Paternalism Space

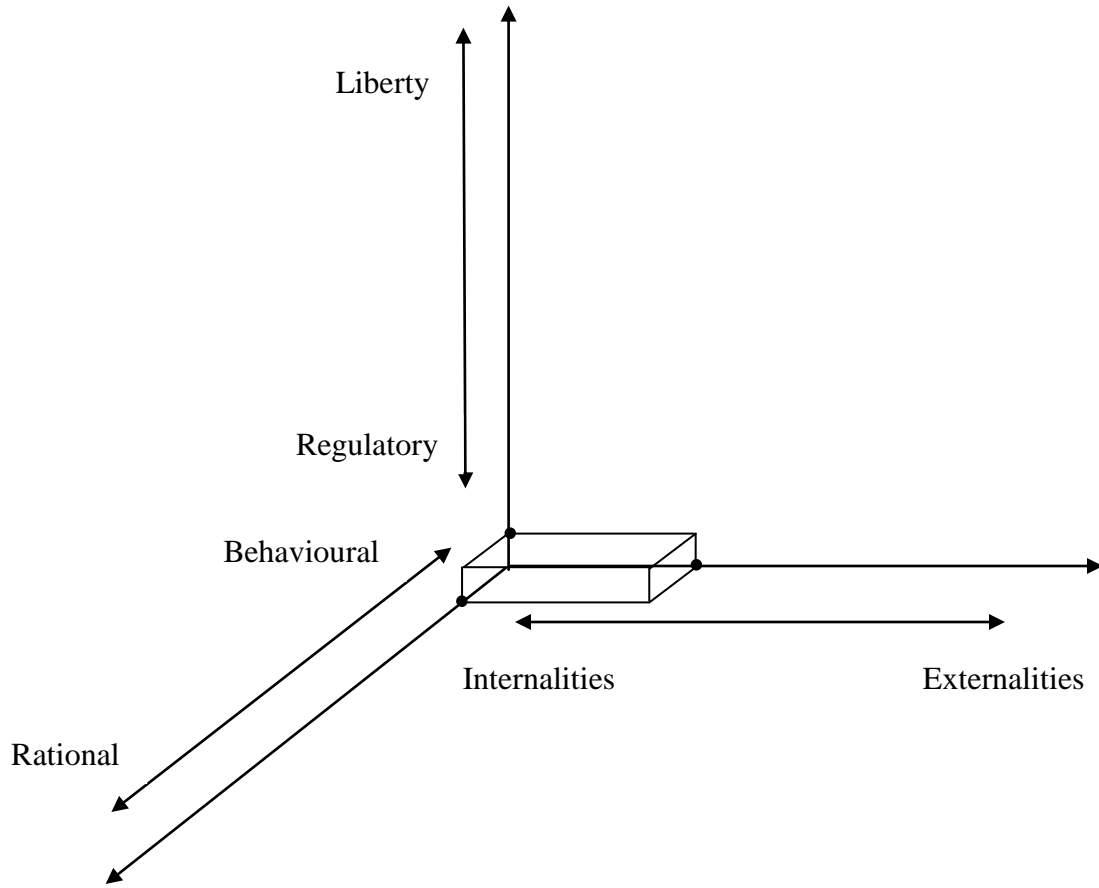
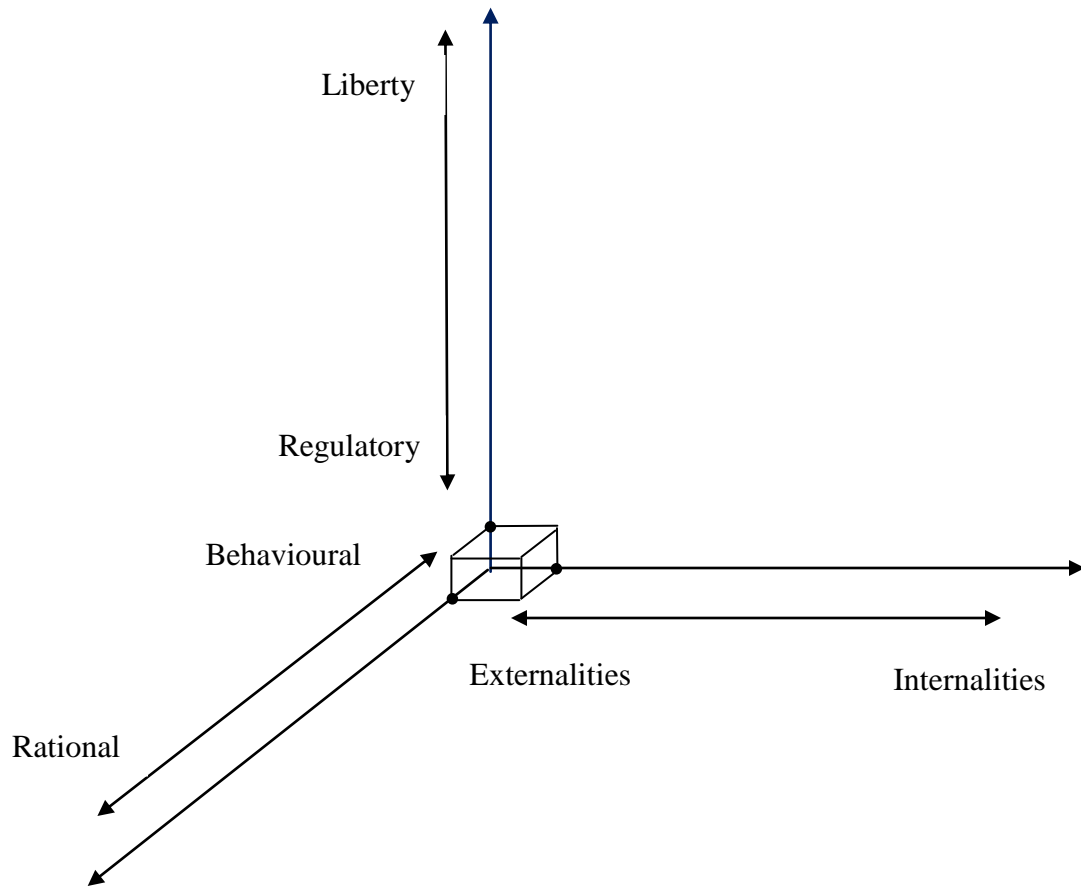


Figure 5: The Behavioural Regulation Space



References

- Akerlof, G. A. and Kranton, R. E. 2010. *Identity Economics: How Our Identities Shape Our Work, Wages, and Well-Being*. Princeton: Princeton University Press.
- Allais, M. 1953. Le Comportement de l'Homme Rationnel Devant le Risque: Critique des Postulats et Axiomes de l'Ecole Américaine. *Econometrica* 21: 503-546.
- Ashraf, N., Camerer, C. F. and Loewenstein, G. 2005. Adam Smith, Behavioral Economist. *Journal of Economic Perspectives* 19: 131-145.
- Behavioural Insights Team. 2010. *Applying Behavioural Insight to Health*. London: Cabinet Office.
- Behavioural Insights Team. 2011. *Behaviour Change and Energy Use*. London: Cabinet Office.
- Camerer, C.F. and Loewenstein, G. 2003. Behavioral Economics: Past, Present, Future. In: Camerer, C.F., Loewenstein, G. and Rabin, M. (eds.). *Advances in Behavioral Economics*. Princeton: Princeton University Press.
- Camerer, C., Issacharoff, S., Loewenstein, G., O'Donoghue, T. and Rabin, M. 2003. Regulation For Conservatives: Behavioral Economics and the Case for 'Asymmetric Paternalism'. *University of Pennsylvania Law Review* 1151: 1211-1254.
- Conly, S. 2013. *Against Autonomy: Justifying Coercive Paternalism*. Cambridge: Cambridge University Press.
- De Waal, F. 2006. *Primates and Philosophers: How Morality Evolved*. Princeton: Princeton University Press.
- Dworkin, G. 1983. Paternalism. In: Sartorius, R. (ed.). *Paternalism*. Minneapolis: University of Minnesota Press.
- Guth, W., Schmittberger, R. and Schwarze, B. 1982. An Experimental Analysis of Ultimatum Bargaining. *Journal of Economic Behavior and Organization* 3: 367-388.
- House of Lords. 2011. *Behaviour Change*. London: The Stationery Office.
- Kahneman, D. 2011. *Thinking, Fast and Slow*. London: Allen Lane.
- Kahneman, D. and Tversky, A. 1979. Prospect Theory: An Analysis of Decision Under Risk. *Econometrica* 47: 263-292.
- Kahneman, D., Knetsch, J.L., and Thaler, R.H. 1986. Fairness and the Assumptions of Economics. *Journal of Business* 59: s285-s300.

- Leggett, W. 2014. The Politics of Behaviour Change: Nudge, Neoliberalism and the State. *Policy and Politics* 42: 3-19.
- Marteau, T. M., Ogilvie, D., Roland, M., Suhrcke, M. and Kelly, M. P. 2011. Judging Nudging: Can Nudging Improve Population Health? *British Medical Journal* 342: d228.
- Mill, J.S. 1869. *On Liberty*. London: Penguin Classics (1982).
- Mols, F., Alexander, S., Jetten, J. and Steffens N. K. 2015. Why a Nudge is Not Enough: A Social Identity Critique of Governance by Stealth. *European Journal of Political Research*: forthcoming.
- Oliver, A. 2013. From Nudging to Budgeting: Using Behavioural Economics to Inform Public Sector Policy. *Journal of Social Policy* 42: 685-700.
- Oliver, A (ed.). 2013. *Behavioural Public Policy*. Cambridge: Cambridge University Press.
- Rabin, M. and Thaler, R. H. 2001. Anomalies: Risk Aversion. *The Journal of Economic Perspectives* 15: 219-232.
- Read, D. and van Leeuwen, B. 1998. Predicting Hunger: The Effects of Appetite and Delay on Choice. *Organizational Behavior and Human Decision Processes* 76: 189-205.
- Simon, H.A. 1987. Behavioral Economics. In: Eatwell, J., Milgate, M. and Newman, P. (eds.). *The New Palgrave: A Dictionary of Economics*. Volume I. New York: Stockton Press.
- Smith, A. 1759. *The Theory of Moral Sentiments*. London: Penguin Classics (2010).
- Sugden, R. 2009. On Nudging. A Review of Nudge: Improving Decisions About Health, Wealth and Happiness by Richard H. Thaler and Cass R. Sunstein. *International Journal of the Economics of Business* 16: 365-373.
- Sugden, R. 2013. A Response to Sah, Cain and Loewenstein. In: Oliver, A. (ed.). *Behavioural Public Policy*. Cambridge University Press: Cambridge.
- Sunstein, C.R. 2013a. It's For Your Own Good! *New York Review of Books*: March 7.
- Sunstein, C.R. 2013b. *Simpler: The Future of Government*. New York: Simon and Schuster.
- Thaler, R.H. and Sunstein, C.R. 2003. Libertarian Paternalism. *The American Economic Review* 93: 175-179.

Thaler, R.H. and Sunstein, C.R. 2008. *Nudge: Improving Decisions about Health, Wealth and Happiness*. New Haven: Yale University Press.

Tversky, A. and Kahneman, D. 1992. Advances in Prospect Theory: Cumulative Representation of Uncertainty. *Journal of Risk and Uncertainty* 5: 297-323.

Wells, P. 2010. A Nudge One Way, A Nudge the Other: Libertarian Paternalism as Political Strategy. *People, Place and Policy* 4: 111-118.