

# Exploring the (behavioural) political economy of nudging

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**Abstract.** In recent years, a novel, specifically institutional approach to public regulation has become popular, particularly in the Anglo-Saxon world: ‘Libertarian Paternalism’ promises to tackle society’s problems in a way that increases welfare without compromising people’s freedom and autonomy. The key instrument advanced by this programme is *nudges*. Although nudges’ ethical quality has been discussed at length, the political economy driving their implementation by self-interested (and possibly boundedly rational) policy makers and bureaucrats has been largely neglected so far. This paper elaborates on how this gap might be filled.

## 1. Introduction

In recent years, a novel approach to public regulation has become popular among policy advisors, policy makers and bureaucrats, particularly in the Anglo-Saxon world: ‘Libertarian Paternalism’ (henceforth, LP) promises to tackle society’s problems in a way that increases welfare without compromising people’s freedom and autonomy.<sup>1</sup> The key instrument advanced by the LP program is *nudges*. What are nudges? Let us refer to the set of all physical, institutional and psychological factors that impact an agent’s choice in a given situation at a particular point in time as *choice architecture* (CA); a nudge is, then, any element of a given CA – excluding monetary incentives and the nominal opportunity set itself – that has been deliberately modified (by some ‘choice architect’) with the aim of influencing choices. Nudges influence real-world human beings (as ‘nudgees’), but not *homo economicus*;<sup>2</sup> they work their magic through either exploiting or responding to agents’ cognitive biases, which are typically assumed to be hard-wired and ‘given’. Nudges can be used to pursue paternalistic or

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1 The *loci classici* are Thaler and Sunstein (2003, 2008) and Sunstein and Thaler (2003). See also Sunstein (2014, 2016). Related public policy programmes have been suggested by Camerer *et al.* (2003) and Loewenstein and Haisley (2008).

2 There is one notable exception to this rule: A *homo economicus* may infer valuable information from the way choices are being framed or structured (e.g., McKenzie, 2004) – an aspect that so far has apparently been neglected in the literature on nudging. Thanks to an anonymous reviewer for making this point.

non-paternalistic policy goals; they are a subset of behavioural interventions, i.e., ‘evidence-based’ policies explicitly informed by behavioural economics insights (Chetty, 2015). Many see them as paving the way toward a new political paradigm, to wit, the ‘behaviour change state’ (e.g., Leggett, 2014, LeGrand and New, 2015).<sup>3</sup>

Nudges have been praised as ‘soft’ regulatory tools that, while steering people in a particular direction, also preserve nudgees’ nominal freedom of choice by providing an opt-out or escape clause. They have also been hailed as ‘one of the few policy proposals that focus on *institutions*, in this case choice architecture’, rather than on outcomes or abstract normative principles alone (Reiss, 2013: 301, emphasis in original), and it is true that the descriptions of nudge policies typically contain a much richer level of institutional detail than is normally the case in normative or public economics.

There is by now a large and rapidly growing literature – spanning economics, law, philosophy and psychology – that discusses the pros and cons of LP and nudges.<sup>4</sup> One important set of questions has, however, been largely neglected so far, by advocates and critics alike: Who does the nudging? More specifically: *What’s the political economy of nudging in a democratic setting?* After all, in practice nudges will be implemented, not by some abstract entity called ‘government’ or ‘social planner’, but by a collection of agents who may be as self-interested and cognitively biased as the individuals they are nudging. What is particularly interesting from an institutional economics perspective is the fact that nudges’ attractiveness may relate to the fact that they allow policy makers to capitalise on the well-known evidence that institutions influence people’s preferences (e.g., Bowles, 1998).

Nudges have of course been around for quite some time – in the form of marketing tools applied for commercial or political purposes (e.g., Thaler, 2015b) – and they are notorious for being used to make people act to the benefit of others.<sup>5</sup> But what exactly is it that makes nudges such an attractive regulatory instrument for policy makers and bureaucrats? Answers to that question may also indicate the likely ways in which nudges will eventually be implemented. To be sure, there are exceptional cases where the attractiveness of nudging to policy makers is obvious: Specific nudges have been shown to make citizens *pay their taxes* on time (Halpern and Nesterak, 2014).<sup>6</sup> Insofar as political decision

3 See Hansen (2016) on the confusion surrounding the definition of key terms such as ‘nudging’ and ‘choice architecture’ in LP. When talking about nudges, let’s refer to public, i.e., government-issued nudges in what follows.

4 See, e.g., Bovens (2009), Fumagalli (2016), Hausman and Welch (2010), Kirchgässner (2015), Schubert (2014), and Selinger and Whyte (2011).

5 This arguably applies to policy tools developed by psychologists more generally; see, e.g., the exchange between Shaw (2016) and Haidt and Pinker (2016).

6 The specific nudge used in a local experiment involved modifications of standard reminder letters that exploited the power of peer comparisons (ibid.). Thaler (2015a: 335–337) reports that it alone ‘sped

making is responsive to voters' preferences, the underlying question of course is Why do so many voters embrace the concept as well? These are pressing issues, as the 'nudge agenda' is evidently about to exert a significant influence in public policy-making around the world.<sup>7</sup>

Interestingly, the main advocates of LP themselves sketch some political economy arguments that, however, are rather unsystematically scattered throughout their work. For instance, Thaler and Sunstein (2008: 11f.) claim that it is exactly the worry that government officials may be both self-interested and subject to cognitive biases that speaks in favour of nudges as opposed to traditional incentive-based (hard) regulation: People's freedom to opt out is taken as a safety valve, supposed to serve as a potentially correcting force against government failure (see also Angner, 2015).<sup>8</sup> Sunstein (2014: 100–102) very briefly adduces policy makers' self-interest and bounded rationality to call for 'caution' when applying nudges. As he puts it, 'for every bias identified for individuals, there is an accompanying bias in the public sphere' (ibid.: 102).<sup>9</sup> It seems, then, that the key advocates of the nudge agenda implicitly subscribe to what we refer to as a *behavioural political economy* (BPE) perspective that takes those who play the policy game – voters, policy makers and government officials – to be not only self-interested, but also, at least partly, boundedly rational (Schnellenbach and Schubert, 2015). Such a perspective will inform the argument in the present paper.

The paper is structured as follows. Section 2 prepares the ground for our subsequent discussion. Sections 3 through 6 critically discuss four hypotheses as to why policy makers might prefer nudging over traditional incentive-based regulatory tools. Section 7 concludes.

## 2. Preparing the ground

Some preliminary remarks are in order. They concern (1) the taxonomy of nudges, (2) the intricacies associated with determining the legitimacy of

up the influx of £9 million [about 10.7 million €] in revenues to the government over the first 23 days' (the period of time before further measures are legally required). See also Hallsworth *et al.* (2014).

7 The best known examples are the Behavioural Insight Team (the 'Nudge unit') in the UK (on which see Baldwin 2014: FN 1, and Halpern, 2015) and the Office of Information and Regulatory Affairs (OIRA) in the United States. The latter was headed by Cass Sunstein, one of the authors of *Nudge*, from 2009 through 2012. Then U.S. President Barack Obama even embraced the use of behavioural economics insights in regulatory policy making in an executive order (White House, 2015). Rebonato (2012: 257, FN i) and Hansen and Jespersen (2013: 4) provide useful overviews of the worldwide use of LP, in general, and nudging, in particular. See also Whitehead *et al.* (2014).

8 For ease of exposition, let's subsume bans and commands under incentive-based regulation as well.

9 See also Sunstein and Thaler (2003: 1201), Thaler and Sunstein (2008: 22, FN, 239f.), and Sunstein (2016: 75f., 180). Acknowledging bounded rationality among government officials has been a hallmark of the Behavioural Law and Economics movement, the key intellectual inspiration for LP; see, e.g., Jolls *et al.* (1998: 1543–1555). See however Bubb and Pildes (2014: 1605–1606).

nudging, and (3) the specific features of the BPE approach used in the present paper.

As to (1), we have to distinguish broadly between, on the one hand, nudges that are used to pursue paternalistic ends – the bulk of the LP programme – and those aiming at non-paternalistic ends.<sup>10</sup> The well-known cafeteria layout re-arrangement that is supposed to encourage the choice of healthy over unhealthy food (Thaler and Sunstein, 2008: 1–3) or the Save More Tomorrow™ programme that capitalises on nudges' loss aversion and *status quo* bias in order to encourage higher savings rates (Thaler and Benartzi, 2013) are paradigm cases of the former, while 'green nudges' fostering pro-environmental behaviour exemplify the latter (e.g., Schubert, 2017; Sunstein and Reisch, 2013). On the other hand, we have to distinguish between 'exploitative' and 'educative' nudges, also known as 'system 1' and 'system 2' nudges, respectively, referring to the standard distinction in behavioural economics between two modes of thinking, one intuitive and fast (system 1), and the other reflective and effortful (system 2).<sup>11</sup> Although exploitative nudges deliberately harness individuals' cognitive biases – that are assumed to be given –, educative nudges attempt to actually overcome those biases (obviously assumed to be endogenous) by endowing individuals with resources in order to enhance their capacity for reflective choice.<sup>12</sup> Those resources may include, e.g., information, the cognitive ability to process information, or simply time.<sup>13</sup> Since rational policy makers can be shown to systematically favour exploitative over educative nudges (Hertwig and Ryall, 2016), we will focus on the former in the present paper.

Importantly, genuine nudges are supposed to be 'easy and cheap to avoid' (Thaler and Sunstein, 2008: 6). This requires them to be sufficiently *transparent*. To be sure, 'transparency' is not self-explaining. Thaler and Sunstein (2008: 244) suggest the Rawlsian 'publicity principle', according to which government should be banned 'from selecting a policy that it would not be willing or able to defend publicly to its own citizens'.<sup>14</sup> Although this particular way to incorporate transparency in nudging is certainly unsatisfactory, and alternative interpretations have been suggested (e.g., Bovens, 2009: 217), we will accept Thaler and Sunstein's suggestion for the sake of the argument. Transparency

10 In light of the standard definition of paternalism as an intervention in person A's freedom or autonomy that (1) aims at increasing A's welfare and that (2) proceeds without A's explicit consent (Dworkin, 2016), it is doubtful whether most supposedly 'paternalistic' nudges suggested by LP qualify as paternalistic at all (Hausman and Welch, 2010); see, however, Thaler and Sunstein's (2008: 5) own quite idiosyncratic understanding of that term. See also Sunstein (2014: 53f.).

11 See Kahneman (2011: ch. 1). On the distinction between both kinds of nudges, see also Amir and Lobel (2008: 2109–2114).

12 Educative nudges are sometimes referred to as 'boosts' (Grüne-Yanoff and Hertwig, 2016).

13 To illustrate, a measure to give the agent time to reflect on her choices would be cooling-off periods for door-to-door sales.

14 See Hansen and Jespersen (2013: 23–27) for a critical discussion of this approach.

makes most nudges somewhat less effective, without, however, eliminating their impact (Bruns *et al.*, 2016; Loewenstein *et al.*, 2014).

As to (2), it has long been recognised in the literature that the nudge agenda suffers from unclear normative foundations, which translates into shaky legitimacy (e.g., Grüne-Yanoff and Hertwig, 2016; Hausman and Welch, 2010). Most importantly, economists' standard notion of welfare – defined as the degree of satisfaction of perfectly consistent and stable preferences – cannot be coherently applied in the 'behavioural world' where nudges are supposed to work, since that is a world with inconsistent preferences subject to endogenous change.<sup>15</sup> Sunstein and Thaler (2003: 1162) respond to that problem by suggesting to (1) discard revealed preferences and (2) go with idealised 'informed' ones instead.<sup>16</sup> Although (1) seems unavoidable, (2) has been shown to be a non-starter (e.g., Qizilbash, 2012). Sometimes, ambiguity about what 'welfare' is supposed to mean even pervades one and the same article, such as Sunstein (2013).<sup>17</sup> Hence, alternative normative benchmarks have been suggested, such as the general consensus criterion of constitutional economics (Schnellenbach, 2016; Schubert, 2014). Note that the ambiguity of the normative foundations of LP may contribute to its attractiveness for policy makers (see Section 4, below).

As to (3) – the specific features of our BPE viewpoint –, we suggest that such a perspective should at least envisage the following three facts. First and most fundamentally, incentive structures in the political arena are such that not only rationally ignorant, but also boundedly rational (biased) behaviour is likely to be much more prevalent there than in the marketplace: While your single vote is practically inconsequential, which makes instrumentally rational voting pointless, choices in the market tend to come with immediate feedback and incentives to learn from mistakes (e.g., Glaeser, 2006). Perhaps the most important factor underlying many of the biases marring political behaviour has been identified by Akerlof (1989: 13): People 'choose beliefs that make them feel good about themselves', and these are typically poorly informed and systematically biased. Thus, even if holding some belief turns out to be costly in

15 See, e.g., Whitman and Rizzo (2015), Schubert and Cordes (2013), and the debate between Schubert (2015a) and Sugden (2015). Sunstein (2016: 48f.) briefly mentions the circularity issue arising from the possibility that nudges influence the very preferences that are originally supposed to evaluate them. Bernheim (2016) discusses the intricacies associated with a 'Behavioural Welfare Economics' most comprehensively.

16. Sunstein and Thaler (*ibid.*) reveal their own notion of welfare, if indirectly, when arguing that 'sometimes, individuals make inferior decisions in terms of their own welfare – decisions that they would change if they had complete information, unlimited cognitive abilities, and no lack of self-control' (emphasis added). See also Thaler and Sunstein (2008: 5). The notion that homo economicus should be upheld as a normative role model and that deviations from it should be judged as 'mistakes' seems to be deeply engrained in behavioural economics: See, e.g., Thaler (2015a: 25, 29, 57).

17 See (Sunstein 2013: 1862), where welfare is defined as 'whatever choosers think might make their lives go well' and, a few lines down the road, as 'whatever the paternalist thinks would make choosers' lives go well'.

monetary terms (which is rarely the case in the voting booth), these costs have to be weighed against the pleasure derived from holding the belief itself. Consider ‘a high minimum wage helps the poor’ or ‘protectionism creates jobs’ as examples (Caplan, 2001). From a BPE perspective, both voters and policy makers are assumed to be aware of these biases and *to strategically respond to them by trying to attenuate or to intensify them*. This implies that, methodologically speaking, cognitive biases should not simply be taken as given, but should rather be understood as the endogenous temporary equilibrium result of the interplay of economic incentives (Frey and Eichenberger, 1994; Glaeser, 2004).

Second, nudges may not only induce preference change – e.g., through their impact on beliefs or their effect on pre-existing social norms (Schnellenbach, 2012) –, but may contribute to *creating* preferences where none existed before (Hausman and Welch, 2010); the endogeneity of preferences, understood this broadly, is another fact that rational policy makers may want to exploit. Third, policy makers may have a general long-term interest in furthering bounded rationality, i.e., in stabilising or even extending biases, in order to maintain their capacity to influence people’s behaviour through exploitative nudging; hence, the latter may have option value (Hertwig and Ryall, 2016).

In a nutshell, the political decision environment is a hothouse of ignorance and bounded rationality and within that ‘messy’ environment preferences as well as biases should be understood as endogenous variables. Note that the classic (Hayekian) epistemic argument – expressed, e.g., by Rebonato (2012: ch. 6) – that policy makers cannot ever be expected to muster the knowledge on individual preferences necessary to design optimal nudges may lose plausibility in our context. It is hardly far-fetched to imagine government having access, in the near future, to sophisticated behavioural algorithms that are able to learn to predict an individual’s preferences more accurately than that very individual herself, not least because those algorithms are not affected by distorting psychological factors such as the prediction bias (Loewenstein and Adler, 1995).<sup>18</sup> Hence, we will abstract from arguments of that ‘pretense-of-knowledge’ kind in the following.<sup>19</sup>

With these clarifications, we are well endowed to have a critical look at four key hypotheses as to why policy makers, aiming at maximising their chances of being re-elected, are attracted to nudges. Let’s simplify things and take these hypotheses as mutually exclusive. We will introduce endogenous political preferences in Section 4 and endogenous biases in Section 5. Policy makers will

<sup>18</sup> See, e.g., Smith *et al.* (2013: 166–168) on ‘smart defaults’ as an example of personalised nudges. See also Sunstein (2014: 98f.) and Sunstein (2016: 183–85). Note however the enormous epistemic and evidential challenges confronting LP at present (e.g., Fumagalli, 2016: 471–76).

<sup>19</sup> See Angner (2015) and LeGrand and New (2015: 167–170) for similar approaches. Our strategy here echoes Buchanan’s (1999) rejection of ‘epistemic privilege’ arguments as a justification of Normative Individualism. Note that this is one aspect in which a BPE approach differs from your classic political economy approach, which often emphasises uncertainty, but not biases.

be assumed to be rational throughout (We will briefly relax that last assumption in the concluding section). Let us start with the simple case of given political preferences concerning the concept of nudging.

### 3. 'Voters like nudges'

In a democratic setting, the most straightforward way to answer the question posed at the end of the last section is to point to empirical evidence that voters find the concept of nudges attractive. The evidence collected so far is still sketchy, but suggestive. Four insights are noteworthy. Let's briefly review two findings on the assessment of the *means* involved in nudging (1 and 2) and two additional ones on the popularity of the *ends* pursued by it (3 and 4).

First, citizens in well-developed (rich, industrialised) countries appear to accept the idea of nudging, in general, as long as they subjectively perceive nudges as being sufficiently transparent (overt). Felsen *et al.* (2013), Lusk *et al.* (2014), and Sunstein (2016: ch. 6) himself provide evidence for that. People do not want to be left in the dark: Specifically, the perception of being subject to 'exploitation' (which may come in the form of manipulation) by a third party creates *procedural disutility* – a well-established insight in behavioural economics and psychology (e.g., Deci and Ryan, 2000; Frey *et al.*, 2004). This is compatible with another important observation: Most people polled favour educative (or System 2) nudges – that aim at promoting reflection and conscious deliberation – over exploitative (or System 1) nudges that harness biases people are typically unaware of (e.g., Felsen *et al.*, 2013; Jung and Mellers, 2016).

Second, Hagman *et al.* (2015) find that while a majority of those polled in their study – in the United States and Sweden – accepted nudges, a majority also found most of those same nudges, particularly those involving default settings, to be 'intrusive to freedom of choice' (*ibid.*: 446–448). Less surprisingly, people with a 'preference for analytical thinking' were found to be systematically less likely to find nudges intrusive (*ibid.*: 451f.), which points to a redistributive and, hence, deeply political dimension that is still largely neglected in the critical literature (but see Schnellenbach, 2012).

Third, when assessing nudges, most citizens seem to focus on the specific *ends* pursued, rather than on the quality of the means employed. Tannenbaum *et al.* (2014) uncover what they refer to as a 'partisan nudge bias': People find nudges the more problematic, the more those nudges serve to pursue policy goals they personally oppose, and the more those nudges are implemented by policy makers they dislike (and, one imagines, distrust). In other words, when asked whether they find a given nudge acceptable, most people's answers depend strongly on whether they accept the specific policy agenda pursued by that nudge.

Fourth and finally, Pedersen *et al.* (2014) offer what is the only empirical study so far that explores the actual motivation underlying the majority support for paternalistic behavioural interventions (including nudges). They find that

respondents who – perhaps overconfidently – judged themselves as being endowed with above-average levels of self-control were significantly more likely than others to support paternalistic policies, in general. The authors interpret this finding as indicating that ‘it is not the case that paternalism is demanded by people who need it as a commitment device’ (ibid.: S149), thereby qualifying a potential argument in favour of a ‘constitutional’ case for LP that would see it as a form of collective self-commitment device (e.g., Frank, 2008; Kirchgässner, 2015).<sup>20</sup> It rather seems to be the case that intuitive paternalists vote for paternalism in order to satisfy, through voting, their own other-regarding paternalistic preferences. Interestingly, Hagman *et al.* (2015) find that paternalistic nudges, such as those discouraging smoking were generally *more* popular than non-paternalistic ones, such as those promoting organ donation or pro-environmental behaviour (ibid.: 446–448).

To be sure, the evidence reported here is subject to the caveat that people only answered to questions on purely hypothetical nudges and that so far, the public debate on the normative costs of nudging is largely non-existent. Still, we may tentatively conclude that there seems to be some ‘latent’ demand for the implementation of public nudges, provided (1) they serve specific ends with which voters happen to agree and (2) they are at least subjectively perceived to be sufficiently ‘transparent’. Right-wing policy makers can be hypothesised to implement nudges aiming at ‘conservative’ ends – such as increase savings or fight crime –, whereas left-wing policy makers can be hypothesised to use nudging to further their own political agenda (help the poor, fight discrimination,...).<sup>21</sup> Both sides can be confident that voters judge the respective nudges primarily on the grounds of the specific ends pursued.

To the extent that voters, when casting their ballot, overcome purely self-interested behaviour and start caring about social welfare (remember our BPE perspective: everything is possible in the polling booth), contractarian arguments may be relevant, not only for the normative issue of the legitimacy of (some) nudges, but also for positively explaining their popularity: Guala and Mittone (2015), for instance, argue that many nudges – such as health-related ones – that appear to be purely paternalistic at first sight may also be defended on non-paternalistic grounds, i.e., as fostering social welfare. Obesity

<sup>20</sup> Note, however, that Pedersen *et al.* (2014) could *not* confirm prior evidence that while smokers (representing individuals with relatively low levels of self-control) do not, on average, support paternalism, the subset that actively try to quit smoking do in fact support such interventions (Hersch, 2005). It is worth noting that Pedersen *et al.* (2014) also found that women and individuals with generally favourable views of government were more supportive of paternalism, in general.

<sup>21</sup> Illustrations for the perhaps more exotic examples 2 and 4 can be found in The Economist (2016) and Bohnet *et al.* (2014), respectively. Another case of anti-discriminatory nudging is defaults that facilitate voter registration, particularly in the United States (e.g. Sunstein, 2016: 14, 73, 125).

or insufficient retirement savings put a strain on public budgets as well (see however Schnellenbach, 2012).<sup>22</sup>

At the same time, an important question, specifically bearing on nudges, concerns the value most people subjectively attach to personal freedom and autonomy, relative to personal well-being. The empirical evidence is inconclusive. On the one hand, Hagman *et al.* (2015) find that samples of the general adult population in the United States and Sweden are apparently willing to trade some loss in freedom and autonomy for gains in welfare (see above). On the other hand, undergraduates from Germany, Israel and the United States asked by Arad and Rubinstein (2015) to assess nudges often rejected such trades and even displayed *reactant* behaviour, deliberately countering the desired behavioural impact of nudges.<sup>23</sup>

Even if we get our hands on more conclusive evidence on voters' nudge-related political preferences in the future, however, this information is of limited relevance to our research question. For the very idea of nudging is to take people's preferences as incomplete, inconsistent and variable – in short, as *non-given*. This of course resonates with our BPE perspective, as even in a setting without nudging, real-world voters would have very little incentive to form political preferences – and consistent ones at that – in the first place. Rather, from a BPE viewpoint, policy makers have had the option to influence voters' preferences long before *Nudge* entered the stage. For them, a key implication of the nudge agenda is to *improve this very option by reducing its costs and increasing its benefits*. Let's have a closer look at this in the following section.

#### 4. 'Nudges minimise political costs'

Perhaps surprisingly, the nudge agenda has been embraced by policy makers across the ideological divide traditionally structuring political arguments in Europe and the Anglo-Saxon world (Leggett, 2014), a fact that seemingly vindicates Thaler and Sunstein's claim that LP represents a 'real third way' (e.g., Thaler and Sunstein, 2008: 252), or that nudges properly reflect a 'politically minimalist' approach that voters with otherwise conflicting ideological persuasions might readily accept (Cowen and Sunstein, 2016).<sup>24</sup>

Beyond such rhetoric, the widespread embrace of nudging indicates that it is an all-purpose tool not only with respect to a variety of public policy goals ('left' and 'right', paternalistic and non-paternalistic), but also with respect to interests policy makers universally share: They are naturally attracted to a policy

<sup>22</sup> The authors quite plausibly assume that, on moral grounds, the public ultimately cannot refuse uninsured individuals access to health care (*ibid.*).

<sup>23</sup> Note that neither the Hagman *et al.* (2015) nor the Arad and Rubinstein (2015) study involved representative samples of the respective populations.

<sup>24</sup> Historically, among its most ardent advocates have been former Conservative U.K. Prime Minister David Cameron and former Democratic U.S. President Barack Obama.

tool that, when compared to traditional ‘hard’ incentive-based instruments, is (1) materially cheaper to implement, and at the same time (2) enables policy makers to realise their goals without having to incur the *political costs* often associated with traditional regulation. Prominent cases of highly unpopular and, hence, politically costly ‘hard’ (non-nudge) interventions include New York City mayor Bloomberg’s notorious ‘sugary drinks portion cap rule’, banning the sale of containers larger than 16 ounces (about 0.5 litres) in volume, which was ultimately ruled inadmissible in 2014 (Sunstein, 2014: 76–79), and the ‘fat tax’ implemented in Denmark in 2011, which had to be revoked in 2013 (Pedersen *et al.*, 2014: S148, FN 3).

In order to clarify our point, let’s specify the variable *political costs*. Political costs are the total of all resources (time, money, effort,...) a given policy maker needs to spend in order to organise – among voters, interest-groups and her peers – the minimum support necessary for determining both some policy goal and the regulatory tools deemed necessary to realise that goal. Thus, this variable encompasses the costs of deliberating and bargaining about goals, as well as the respective costs needed to identify, implement and enforce the corresponding regulatory tools.<sup>25</sup>

Relative to its most salient instrumental alternative, to wit, incentive-based regulation, nudges help minimise those political costs, for (at least) three reasons. First, they are typically implemented by executive order rather than through the legislative process; simple administrative fiat substitutes for cumbersome deliberation that typically requires elaborate logrolling.<sup>26</sup> As many observers have noted, there is a latent tendency in the intellectual strands underlying the nudge agenda – namely, cognitive psychology and Behavioural Law and Economics – to respond to BPE insights on the irrationalities prevalent in politics by discarding democratic decision-making in favour of technocratic, ostensibly purely ‘evidence-based’ approaches (e.g., Rachlinski, 2003: 1202–1206). When voters and legislators fail to live up to standards of rationality, the bureaucrat-expert seems to provide the last ray of hope for ‘rational’ public policy.

Second, to the extent that they are exploitative, nudges operate through harnessing cognitive biases about which the individuals themselves are often unaware; put differently, they operate *under the radar* of most nudgees. Hence, they are less visible than traditional regulation and, consequently, more difficult to control and less likely to arouse resistance (Glaeser, 2006: 151). Note the

25 To be sure, ‘costs’ have to be understood as *opportunity costs*, i.e., they include any benefits foregone by activities to organise political support.

26 This is perhaps best illustrated by U.S. President Obama’s executive order requiring U.S. government agencies to use behavioural economics insights (White House, 2015). See also Baldwin (2014: 845).

analogy to the observation that policy makers often set taxes so as to harness voters' fiscal illusion (e.g., Pommerehne and Schneider, 1978).<sup>27</sup>

Third, nudges generally enable policy makers to shape and influence voters' political preferences (Hausman and Welch, 2010). Sunstein (2016: 48f.) himself concedes that nudges' 'preferences and values' may be influenced by nudges.<sup>28</sup> In their representative study examining U.S. citizens' attitudes towards nudges, Jung and Mellers (2016) show that those attitudes can indeed partly be influenced by the way nudges are presented and framed (ibid.: 68–72). Access to psychological tools that allow them to better 'sell' their policies is obviously attractive for policy makers independent of their ideological orientation. To the extent that policy makers can use nudges to effectively shape preferences, they command an additional tool to reduce potential voter resistance against their own policies. Put differently, instead of engaging in costly and time-consuming attempts to rationally persuade sceptical voters, they can use psychological means of manipulation in order to reduce the costs of organising the political support they need. This tool may be used at the level of ends or at the instrumental level. As to the former, consider the ambiguity of the welfare concept favoured by Thaler and Sunstein: Given that the material content of 'informed preferences' cannot be scientifically determined, this notion is essentially value laden and offers much leeway when it comes to making people believe in the legitimacy of a given nudge.

As to the instrumental level, it is people's *procedural preferences* – their innate need to be in control (Deci and Ryan, 2000) – that emerges as the key obstacle everyone faces when trying to extend the realm of application and the intrusiveness of nudges. Policy makers may, then, be hypothesised to try to shape procedural preferences in a way that makes people more tolerant toward 'covert' interventions. Two aspects facilitate the task of manipulating people's beliefs concerning the intrusiveness of a given nudge. First, people have a tendency to be overconfident with respect to their own cognitive abilities (e.g., Kruger and Dunning, 1999), i.e., their own ability to 'see through' a nudge and use the escape clause if necessary. People like to believe themselves to be in control of their own choices. In order to avoid cognitive dissonance, they will naturally downplay any hint as to them being subject to nudging at a sub-conscious level. Second, key notions used in justifying the means involved in nudging are conspicuously left ambiguous in the LP programme, namely, 'autonomy' and 'freedom' (Grüne-Yanoff, 2012; Hausman and Welch, 2010), as well as 'transparency': Recall that Thaler and Sunstein define the latter simply as requiring the nudger's 'ability to defend (a given nudge) publicly' (see above, Section 2). Hence, it's apparently

<sup>27</sup> The concept of fiscal illusion suggests that a kind of (illegitimate) nudging had been around decades before Thaler and Sunstein offered a systematic analysis and normative underpinnings.

<sup>28</sup> The neuroeconomic microfoundations are provided by Rebonato (2012: 217–220), see below, Section 5.

rhetorical sophistication that is supposed to matter, rather than any kind of intersubjectively agreed-upon critical standard. Eventually, we may get to the point sketched by Sunstein himself, when musing, more or less in passing, that ‘nudges may be self-insulating in altering the very beliefs that would otherwise be brought to bear against them’ (Sunstein, 2013: 53).

The notion that nudges are politically more cost-effective than traditional regulatory tools obviously presupposes that the political *benefits* associated with nudging are not significantly lower than those associated with traditional regulation. These benefits are a function of (1) nudges’ objective effectiveness and (2) their subjective value, as perceived by nudgees. As to (1), nudges are indeed often judged to be less effective than incentive-based regulation (e.g., Lusk *et al.*, 2014; McCrudden and King, 2016). To be sure, there are important exceptions, in particular, with respect to default modifications. Policy makers, then, face latent incentives to increase nudges’ objective effectiveness by making them less transparent, thereby discouraging nudgees to use the escape clause.<sup>29</sup> In general, however, this can only go so far (note that it requires parallel efforts to shape nudgees’ procedural preferences, as sketched above). Nudges have accordingly been recommended as complementing traditional regulation, rather than substituting for it (e.g., Bhargava and Loewenstein, 2015).

As to (2), what matters from a BPE perspective is the subjective and possibly biased way voters *perceive* nudges’ effectiveness. Hence, in order to make nudging politically cost-effective policy makers need to make sure that voters hold the potentially illusory belief that nudging provides ‘simple, cheap and effective solutions to public policy problems’ (e.g., Yeung, 2012: 124). In a ‘messy’ environment that favours rational ignorance and the consumption of bliss beliefs, this does not seem far-fetched. Put differently, nudges allow policy makers to capitalise on the nature of this environment and substitute mere symbolism for the thorny task of actually tackling the true institutional causes of society’s problems (e.g., Baldwin, 2014).

## 5. ‘Nudges offer a way to extend cognitive biases’

So far, we have taken the scope, intensity and direction of people’s *cognitive biases* as given. Now we relax that assumption and assume that voters’ biases are endogenous to the interplay of economic incentives within the political arena.

From the BPE perspective applied here, the choices of those who participate in the game of politics should primarily be understood as reflecting different ways to respond to cognitive biases. Whereas voters face incentives to reduce or

<sup>29</sup> This holds for those nudges whose effectiveness is negatively correlated with their transparency. Obviously, in some cases, such as graphic images on cigarette packages, the opposite is true.

indulge their biases, policy makers face incentives to exploit those biases.<sup>30</sup> The latter set of incentives are a function of the relative costs and benefits of ‘setting traps’, as Frey and Eichenberger (1994) put it. Obviously, ‘trap setting’ can be made more cost-effective by enhancing people’s susceptibility to biases.

Rebonato (2012) shows that exploitative nudges do indeed enable policy makers to achieve this goal, thereby extending the political demand for nudging and ultimately paving the way towards a self-stabilising – and ultimately self-accelerating – interventionist ‘nudge cycle’ where one nudge prepares the ground for requesting the next nudge and so on. He refers to neuroscientific studies – such as Maguire *et al.* (2000) and Kandel (2006) – that stress the human brain’s plasticity and adaptability (Rebonato, 2012: 217–220; see also Carr, 2011). This implies that, as he puts it, ‘if ... we become accustomed to “reason out” the terms of a decisional problem, the associated [System 2] neural pathways are reinforced and will be more readily used when we are faced with the next decisional task.’ Crucially, the opposite happens when people, subject to exploitative nudging, are systematically *discouraged* from engaging in well-reasoned choices (Rebonato 2012: 218f.). In that case, ‘our brains will become ill equipped to reason rationally and critically about the next choice’ (*ibid.*: 219). The systematic use of exploitative nudges may then, over time, create the grounds for a self-fulfilling prophecy (*ibid.*) through their ‘infantilising’ impact on nudgees (e.g., White, 2013).

Does it make sense to suggest that policy makers, aware of these long-term effects of exploitative nudging, are interested in bringing them about? The answer depends on the impact that a ‘nudge cycle’ as the one sketched by Rebonato has on their political cost calculus. On the one hand, such a cycle seems to be a cost-effective way to enhance the policy makers’ general and long-term capacity to influence people’s behaviour. On the other hand, when going too far, comprehensive nudging may be perceived as compromising people’s sense of autonomy, i.e., their procedural utility, which potentially thwarts voters’ political support for the nudger.

Two things should be noted about this trade-off, however. First, the procedural disutility from feeling manipulated may become effective only rather late in the nudge cycle – exploitative nudges, both when used paternalistically and non-paternalistically, may provide *extra utility* for nudgees due to the fact that they are *convenient* in allowing people to ‘outsource’ responsibility for potentially hard and cumbersome decisions (Schubert, 2015b; Selinger and Whyte, 2011). For instance, nudges relieve them from the need to muster self-control (to avoid unhealthy food in the cafeteria, say) or to engage in cognitively costly reflection on intricate issues such as their own old-age savings strategy or the moral tradeoffs involved in organ donation. To be sure, some outsourcing

30 As Glaeser (2004: 410) puts it, ‘the battle for truth in political markets places incentivized politicians against unincentivized voters’. Note the contrast to *economic* markets.

of this kind is necessary in order to maintain the personal ability to navigate an increasingly complex environment – as, for instance, Sunstein (2014: 21, 105, 130f., 137) and De Marneffe (2006: 81) emphasise. Some outsourcing services – such as self-commitment devices – may even be provided in the marketplace, to the extent that private welfare is at stake (i.e., nudges are paternalistic) and agents are fully aware of their cognitive biases. In both cases, however, there is a catch: If driven too far, outsourcing may make nudgees ultimately unable to engage in active choice at all (White, 2013).

Second, the political cost calculus hinges on the relative weights nudgees attach to the (subjectively perceived) gains in well-being – from conveniently outsourcing difficult challenges, say (see above) – relative to the procedural disutility from feeling manipulated. The latter emerges as one of the few factors preventing the establishment of a comprehensive ‘behaviour change’ state in the sense of the nudge agenda. To the extent that policy makers aim at extending the realm of application and the objective intrusiveness of nudges, then, we may conclude that they will rationally try to shape nudgees’ procedural preferences in a way that makes people more lenient toward ‘manipulative’ conditions. As we have seen, people’s overconfidence in their own capacities to make use of nudges’ escape clause is a key factor countering the feeling of being manipulated. Hence, policy makers eager to extend nudging may try to strengthen biases such as this one – perhaps by investing in consumer information campaigns that, while in fact overwhelming them, may give consumers the illusion of gaining in competence.

## 6. ‘Nudges allow policy makers to realise their actual ideological goals’

As Baldwin (2014: 846) suspects, LP ‘may be used as a cover for the pursuit of social objectives (such as lowering hospitals’ administrative costs) rather than the welfare of the nudged individuals’. This can hardly be denied. But is it conceivable that rational policy makers are attracted to nudging because it allows them to realise larger ideological goals further down the road? Let us assume, then, that apart from maximising their odds of re-election, policy makers also pursue some ideological goal.

Methodologically speaking, the Rebonato claim, sketched in the preceding section, qualifies as a *slippery slope* argument: Policy A is argued to create certain conditions that help bring about – in a causal, probabilistic way – policies B, C, etc., possibly by *other* agents in future periods, thereby setting off a chain of policies that ultimately lead to a situation that the original supporters of policy A actually reject (Volkh, 2003).<sup>31</sup> In other words, policy makers may be inclined to use slippery slope dynamics in order to realise some hidden (long-term) policy agenda. The specific underlying *mechanism* Rebonato adduces is ultimately located in the nudgees’ brains: Over time, nudging makes them more

31 Note that slippery slope arguments are rather controversial among philosophers (Angner, 2015).

dependent on decisional support by the nudger. Similar effects have been shown experimentally: For instance, subjects responded to the imposition of external control by reducing their own level of self-control (Fishbach and Trope, 2005).<sup>32</sup>

A variety of alternative slippery slope mechanisms have been uncovered, such as the cost function of government agencies or regulatory tools (once set up, marginal costs of additional interventions are low), balance of power shifts, legal precedent, attitude changes, the 'is-ought-heuristic' (making people infer a law's legitimacy from the mere fact that it exists), or the dynamic interplay between different biases. The list is hardly complete.<sup>33</sup>

Three points are noteworthy: First, most of these mechanisms work best in a 'messy' political environment, such as the one assumed in a BPE framework (Rizzo and Whitman, 2009: 693). Second, some special characteristics of the LP programme seem to make it particularly vulnerable to slippery slopes (again, compared to hard regulation): Consider the vagueness that is inherent in the normative foundations of the nudge agenda (see above, Section 2). For instance, when the student entering the cafeteria does not actually have pre-existing 'true' (read: consistent) preferences but rather is about to construct them on the spot, LP advocates would typically respond by steering her to those products they deem appropriate to satisfy her 'actual' (read: well-informed, 'rational') preferences. Due to its ambiguity, this notion of idealised preferences can be used to justify all kinds of behavioural interventions, thereby facilitating regulatory dynamics of the slippery slope kind. Similar vagueness is apparent in the use of the key value 'autonomy' in the writings of Sunstein and Thaler: The meaning of that term oscillates in the LP literature: sometimes, it is taken to be synonymous with freedom (either nominal or effective), sometimes with 'dignity' (e.g., Sunstein, 2015); at one point, Sunstein even ventures into downgrading autonomy to the status of a mere moral heuristic.<sup>34</sup>

Third, it is important to see that the invocation of a slippery slope argument *per se* does not yet answer the material question whether the nudge agenda will ultimately result in an interventionist 'big government' situation dominated by hard paternalistic regulation, or rather in a minimal state where meaningful regulation has been all but dismantled. An additional possibility would involve the gradual evolution from relatively 'transparent' nudges towards comprehensive 'governance by stealth' (Mols *et al.*, 2015). So far, the first – 'big government' – view dominates the literature, which is perhaps natural, given LP's

32 In other words, internal 'counteractive self-control' (as a way to reduce cognitive dissonance) and social pressure were treated as substitutes (*ibid.*).

33 A quite exhaustive list is provided by Volokh (2003). Rizzo and Whitman (2009) illustrate the slippery slope contribution of interacting biases with 'sin taxes' that make the targeted agent – provided she has access to credit – 'offload' the financial burden to her own future self, which may give policy makers an incentive to step in and regulate credit (*ibid.*: 706).

34 See Sunstein (2014: 135). See Hausman and Welch (2010) and McCrudden and Kling (2016: 96–100) on Sunstein's idiosyncratic understanding of autonomy.

paternalistic flavour. For instance, Rizzo and Whitman (2009) argue that LP is vulnerable to slippery slopes that can lead from apparently harmless, allegedly ‘libertarian’ paternalism to more extensive measures, eventually culminating in hard paternalism. To illustrate, what starts with a ‘soft’ reminder that smoking is unhealthy may end with an all-encompassing ban on cigarettes. Viscusi and Gayer (2015) agree that in the light of public choice insights, policy makers can be expected to use the nudge agenda (and behavioural findings more generally) to rather ‘justify increasing regulatory power than to move toward softening regulations’ (ibid.: 986).<sup>35</sup>

On the other hand, nudges might pave the way towards dismantling hard regulation, ultimately resulting in a kind of minimal state. To the extent that they are optimistic with respect (at least) to their own cognitive capacities, libertarians might welcome the systematic substitution of hard regulation for nudges (Caplan, 2013; Cowen and Sunstein, 2016).<sup>36</sup> Recall that from the policy makers’ viewpoint, nudges are politically more cost-effective than hard regulation, which leads McCrudden and King (2016) to worry that they may be used to displace the latter over time. Such a dismantling might find its justification in Sunstein’s own ‘First (and Only) Law of Behaviorally Informed Regulation’ that states that nudges should ‘usually’ be seen as the best response to behavioural market failures, i.e., they should be preferred over hard regulation (Sunstein, 2014: 17). Bubb and Pildes (2014) articulate a similar critique, arguing that Behavioural Law and Economics itself (the intellectual mother ship of LP) is biased in favour of choice-preserving regulation, perhaps reflecting perceived political constraints peculiar to the United States.

Two somewhat cynical arguments that potentially support this (minimal state) prediction are the following. First, one might argue that nudges may impede the workings of traditional hard regulation by, e.g., gradually undermining citizens’ *trust* in the political system and its representatives (Baldwin, 2014). Second, the widespread use of nudges may change the way society’s problems are perceived: In line with the notion of ‘behavioural market failure’, their roots may be seen as lying with flaws at the level of individual agents, modelled in context-free isolation (e.g., Mols *et al.*, 2015: 87), rather than with society’s overarching institutional arrangements. These two arguments would ultimately imply that libertarian-minded policy makers could instrumentalise the nudge agenda with the aim to dismantle government itself, echoing the classic, if dysfunctional ‘Starving the Beast’ strategy (Baron and McCaffery, 2008).

Yet another (third) possibility would be that the slippery slope ends in a situation where nudge-based regulation is dominant, but where the transparency

<sup>35</sup> The authors also invoke biases on the part of government agencies to buttress that point, see [Section 7](#), below.

<sup>36</sup> Caplan (2013), for instance, laments the reluctance, on the part of LP advocates, to fully endorse nudging over hard regulation (explaining it with them being subject to the endowment effect).

requirement originally characteristic of nudging has somehow been lost in the process, perhaps because policy makers have found ways to reduce voters' political demand for genuinely transparent nudges.<sup>37</sup> That would mean that over time, nudges proliferate in such a way as to make it cognitively very costly to effectively exercise the free choice embodied in the escape clause (Baldwin, 2014: 848). It would also mean that interventions that, due to their covert nature, are still highly controversial today would eventually become representative of nudging tomorrow.

By way of illustration, consider the UK's Behavioural Insights Team's initiative, in 2013, to run an experiment with unemployed persons (notably left unaware of their role as experimental subjects) in Loughton, England. It involved a deceptive fake 'skills test' meant to boost the subjects' self-esteem, a variable hypothesised to be causally related to success on the job market.<sup>38</sup> Obviously, welfarist considerations – based, as we have seen, on a fuzzy notion of 'welfare' – trumped considerations of autonomy here (that were apparently regarded as merely 'sentimental and negotiable').<sup>39</sup> Kramer *et al.* (2014) exemplifies another case, where requirements of informed consent were disregarded in nudge-related research.<sup>40</sup> Although LP advocates may rightly question whether those interventions technically qualified as genuine nudges (given the lack of transparency), the notorious ambiguity and vagueness associated with the nature and status of autonomy within LP makes the slippery slope worry appear at least plausible.

## 7. Concluding remarks

Quite obviously, there is much that we still do not know about the BPE of nudging. Given our first thoughts about it, presented above, we have reason to call for caution when pondering – as citizens participating in a hypothetical constitutional assembly, say – about whether and when to implement nudges.

Ultimately, nudges offer policy makers a way to realise their own intermediary goals (on their way to re-election) that is more politically cost-effective than engaging in incentive-based regulation. That is why nudges are so popular among the *classe politique*. In contrast, what should matter for citizens is the *normative* cost calculus of specific nudges and specific combinations of nudges and incentives, say, compared to alternative regulatory tools: What are the

37 The 'democratic time lag' suggested by LeGrand and New (2015: 172f.) could be interpreted in that way, as its function is (also) to capitalise on the adaptability of people's attitudes in order to gain acceptance of specific nudges that were originally unpopular.

38 The description of that particular case is taken from McCrudden and King (2016: 110).

39 See *Ibid.*

40 Specifically, the authors used data on the effects of emotional contagion that were collected and supplied, without the users' awareness, by Facebook.

effects on welfare, freedom and autonomy, properly understood? To what extent can specific nudges be reconstructed as part of a generally agreed-upon social contract? As Loewenstein and Ubel (2010) put it, in a newspaper article, nudging may be used as a ‘political expedient, allowing policymakers to avoid painful but more effective solutions rooted in traditional economics.’

An obvious desideratum for future research would be to relax the assumption of rationality among policy makers and government officials. So far, most BPE studies assume only voters to be boundedly rational and to be potentially subject to ‘traps’ set by clever and far-sighted politicians. When the latter are also plagued by biases, an additional potential source of suboptimal policy making emerges. Does this provide grounds for rejecting nudging? Although nudges can be mishandled just like any other public policy tool and nudgers need not be ‘superhuman’ (Angner, 2015), there are good reasons to predict that nudges such as defaults, by creating the illusion, among policy makers, that they provide people with ‘real’ freedom to opt out, may make those ‘choice architects’ less conscientious when setting defaults, thereby increasing the likelihood of interference by rent-seekers and, ultimately, non-optimal default levels (Bubb and Pildes, 2014: 1605).

What is more, policy makers’ and bureaucrats’ cognitive biases may distort their choice between nudges and alternative tools: As Baldwin (2014: 855) puts it, ‘[they] fall in love with a certain newly fashionable policy style or mode of intervention, [and] tend to be blind to the virtues of more traditional approaches.’ At the bureaucratic level, this leads to phenomena such as the one reported by Gayer and Viscusi (2015): So far, the U.S. Environmental Protection Agency (EPA) apparently only invokes behavioural economics findings that suggest *more* regulation. In contrast, the possibility that the existence of other-regarding preferences – a key insight of modern behavioural economics – might sometimes suggest a diminished need for hard regulation is completely neglected (ibid.: 987f.). This indicates a systematic bias within regulatory agencies in favour of scientific information that seems to support extending regulation.

Generalising, Klein (1994) argues that policy makers and bureaucrats may, in order to contain cognitive dissonance, adapt their own private beliefs in such a way that, over time, they come to honestly find nudging legitimate. In our context, that would mean that they fool themselves into thinking that the normative costs associated with nudges are minimal, which would lead to excessive nudging.

Yet other gaps within the BPE of nudging concern (1) the question whether a government committed to LP may become more vulnerable to rent-seeking by self-interested parties – an issue only briefly raised by Sunstein (2016: 190) but otherwise widely neglected (Bubb and Pildes, 2014) – and (2) the impact comprehensive nudging may have on the nature of democratic deliberation: As, e.g., Furedi (2011) puts it with respect to the British ‘Nudge unit’: ‘No doubt its advocates mean well. But in encouraging the manipulation of people’s

imaginations, they corrupt the very meaning of public life' (see also Leggett, 2014; Lepenies and Malecka, 2015).

It is important to stress the fundamental change of perspective brought about by LP. To the extent that they are engaged in nudging, policy makers and government officials do not treat citizens as rational agents, but as cognitively flawed subjects that potentially respond to manipulation in a manner that can be scientifically determined. In other words, the public arena of democratic deliberation comes to resemble the commercial sphere in yet another sense: This time, it is not about commodification, but about the deliberate use of manipulation techniques that make people behave in a way that may or may not benefit them.

## References

- Akerlof, G. A. (1989), 'The Economics of Illusion', *Economics and Politics*, 1: 1–15.
- Amir, O. and O. Lobel (2008), 'Stumble, Predict, Nudge: How Behavioral Economics Informs Law and Policy', *Columbia Law Review*, 108: 2098–2138.
- Angner, E. (2015), 'Behavioral Welfare Economics, Libertarian Paternalism, and the Nudge Agenda', [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2580523](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2580523) (last accessed December 16, 2016).
- Arad, A. and A. Rubinstein (2015), 'The People's Perspective on Libertarian-paternalistic Policies', Working Paper.
- Baldwin, R. (2014), 'From Regulation to Behaviour Change: Giving Nudge the Third Degree', *Modern Law Review*, 77: 831–857.
- Baron, J. and E. J. McCaffery (2008), 'Starving the Beast: The Political Psychology of Budget Deficits', in E. Garrett, E. Graddy and H. E. Jackson (eds.), *Fiscal Challenges*. Cambridge: Cambridge University Press, pp. 221–241.
- Bernheim, D. B. (2016), 'The Good, the Bad and the Ugly: A Unified Approach to Behavioral Welfare Economics', *Journal of Cost Benefit Analysis*, 7: 12–68.
- Bhargava, S. and G. A. Loewenstein (2015), 'Behavioral Economics and Public Policy 102: Beyond Nudging', *American Economic Review, Papers & Proceedings*, 105: 396–401.
- Bohnet, I., A. Van Geen, and M. Bazerman (2014), 'When Performance Trumps Gender Bias: Joint vs. Separate Evaluation', *Management Science*, 62: 1225–1234.
- Bovens, L. (2009), 'The Ethics of Nudge', in T. Grüne-Yanoff and S. O. Hansson (eds.), *Preference Change: Approaches from Philosophy, Economics and Psychology*, Berlin: Springer, pp. 207–220.
- Bowles, S. (1998), 'Endogenous Preferences: The Cultural Consequences of Markets and Other Economic Institutions', *Journal of Economic Literature*, 36: 75–111.
- Bruns, H., E. Kantorowicz-Reznichenko, K. Klement, M. Luistro Jonsson, and B. Rahali (2016), 'Can Nudges be Transparent and Yet Effective?', Working Paper, [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2816227](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2816227) (last accessed December 16, 2016).
- Bubb, R. and R. H. Pildes (2014), 'How Behavioral Economics Trims its Sails and Why', *Harvard Law Review*, 127: 1593–1678.

- Buchanan, J. M. (1999), 'The Foundations for Normative Individualism', in *The Logical Foundations of Constitutional Liberty*, vol. 1. Indianapolis: Liberty Fund, pp. 281–291.
- Camerer, C., S. Issacharoff, G. A. Loewenstein, T. O'Donoghue, and M. Rabin (2003), 'Regulation for Conservatives: Behavioral Economics and the Case for "Asymmetric Paternalism"', *University of Pennsylvania Law Review*, **151**: 1211–1254.
- Caplan, B. C. (2001), 'Rational Irrationality and the Microfoundations of Political Failure', *Public Choice*, **107**: 311–331.
- Caplan, B. C. (2013), 'Nudge, Policy and the Endowment Effect', Blog Post, [http://econlog.econlib.org/archives/2013/07/nudge\\_policy\\_an.html](http://econlog.econlib.org/archives/2013/07/nudge_policy_an.html) (last accessed December 16, 2016).
- Carr, N. (2011), *The Shallows: What the Internet is Doing to Our Brains*, New York: Norton.
- Chetty, R. (2015), 'Behavioral Economics and Public Policy: A Pragmatic Perspective', *American Economic Review, Papers & Proceedings*, **105**: 1–33.
- Cowen, T. and C. R. Sunstein (2016), 'Conversation with Tyler: Cass Sunstein', <https://medium.com/conversations-with-tyler/cass-sunstein-star-wars-nudge-a7c874f3ce8c#.cakqyilux> (last accessed December 16, 2016).
- Deci, E. L. and R. M. Ryan (2000), 'The "What" and "Why" of Goal Pursuits: Human Needs and the Self-determination of Behavior', *Psychological Inquiry*, **11**: 227–268.
- De Marneffe, P. (2006), 'Avoiding Paternalism', *Philosophy and Public Affairs*, **34**: 68–94.
- Dworkin, G. (2016), 'Paternalism', *The Stanford Encyclopedia of Philosophy*. <http://plato.stanford.edu/entries/paternalism/> (last accessed December 16, 2016).
- Felsen, G., N. Castelo, and P. B. Reiner (2013), 'Decisional Enhancement and Autonomy: Public Attitudes Toward Overt and Covert Nudges', *Judgment and Decision Making*, **8**: 202–213.
- Fishbach, A. and Y. Trope (2005), 'The Substitutability of External Control and Self-control in Overcoming Temptation', *Journal of Experimental Social Psychology*, **41**: 256–270.
- Frank, R. H. (2008), 'Review of Nudge: Improving Decisions About Health, Wealth and Happiness', *Ethics*, **119**: 202–208.
- Frey, B. S. and R. Eichenberger (1994), 'Economic Incentives Transform Psychological Anomalies', *Journal of Economic Behavior and Organization*, **23**: 215–234.
- Frey, B. S., Benz, M. and A. Stutzer (2004), 'Introducing Procedural Utility: Not Only what, but Also How Matters', *Journal of Institutional and Theoretical Economics*, **160**: 377–401.
- Fumagalli, R. (2016), 'Decision Sciences and the New Case for Paternalism: Three Welfare-related Justificatory Challenges', *Social Choice & Welfare*, **47**: 459–480.
- Furedi, F. (2011), 'Defending Moral Autonomy Against an Army of Nudgers', *Spiked* (Online). [http://www.spiked-online.com/newsite/article/10102#.Vou-n\\_nhC00](http://www.spiked-online.com/newsite/article/10102#.Vou-n_nhC00) (last accessed December 16, 2016).
- Gayer, T. and W. K. Viscusi (2015), 'Behavioral Public Choice: The Behavioral Paradox of Government Policy', *Harvard Journal of Law & Public Policy*, **38**: 973–1007.
- Glaeser, E. L. (2004), 'Psychology and the Market', *American Economic Review*, **94**: 408–413.
- Glaeser, E. L. (2006), 'Paternalism and Psychology', *University of Chicago Law Review*, **73**: 133–156.
- Grüne-Yanoff, T. (2012), 'Old Wine in New Casks: Libertarian Paternalism Still Violates Liberal Principles', *Social Choice and Welfare*, **38**: 635–645.

- Grüne-Yanoff, T. and R. Hertwig (2016), 'Nudge versus Boost: How Coherent are Policy and Theory?', *Minds and Machines*, 26: 149–183.
- Guala, F. and L. Mittone (2015), 'A Political Justification of Nudging', *Review of Philosophy and Psychology*, 6: 385–395.
- Hagman, W., D. Andersson, D. Västfjäll, and G. Tinghög (2015), 'Public Views on Policies Involving Nudges', *Review of Philosophy and Psychology*, 6: 439–453.
- Haidt, J. and S. Pinker (2016), 'Moral Psychology: An Exchange', in *New York Review of Books*, April 7, <http://www.nybooks.com/articles/2016/04/07/moral-psychology-an-exchange/> (last accessed December 16, 2016).
- Hallsworth, M., J. A. List, R. D. Metcalfe, and I. Vlaev (2014), 'The Behavioralist As Tax Collector: Using Natural Field Experiments to Enhance Tax Compliance', NBER Working Paper 20007.
- Halpern, D. (2015), *Inside the Nudge Unit*, London: WH Allen.
- Halpern, D. and M. Nesterak (2014), 'Nudging the UK: A Conversation with David Halpern', *The Psych Report*. <http://thepsychreport.com/conversations/nudging-the-uk-a-conversation-with-david-halpern/> (last accessed December 16, 2016).
- Hansen, P. G. (2016), 'The Definition of Nudge and Libertarian Paternalism – Does the Hand Fit the Glove?', *European Journal of Risk Regulation*, 7: 155–174.
- Hansen, P. G. and A. M. Jespersen (2013), 'Nudge and the Manipulation of Choice', *European Journal of Risk Regulation*, 3: 3–28.
- Hausman, D. M. and B. Welch (2010), 'Debate: to Nudge or Not to Nudge?', *Journal of Political Philosophy*, 18: 123–136.
- Hersch, J. (2005), 'Smoking Restrictions As a Self-control Mechanism', *Journal of Risk and Uncertainty*, 31: 5–21.
- Hertwig, R. and M. D. Ryall (2016), 'Nudge vs. Boost: Agency Dynamics Under "Libertarian Paternalism"', Working Paper.
- Jolls, C., C. R. Sunstein, and R. H. Thaler (1998), 'A Behavioral Approach to Law and Economics', *Stanford Law Review*, 50: 1471–1550.
- Jung, J. Y. and B. A. Mellers (2016), 'American Attitudes Toward Nudging', *Judgment and Decision Making*, 11: 62–74.
- Kahneman, D. (2011), *Thinking – Fast and Slow*, London: Penguin.
- Kandel, E. (2006), *In Search of Memory: The Emergence of a New Science of Mind*, New York: Norton.
- Kirchgässner, G. (2015), 'Soft Paternalism, Merit Goods, and Normative Individualism', *European Journal of Law and Economics*, doi: 10.1007/s10657-015-9500-5 (last accessed December 16, 2016).
- Klein, D. B. (1994), 'If Government is so Villainous, how Come Government Officials Don't Seem Like Villains?', *Economics and Philosophy*, 10: 91–106.
- Koppell, J. G. S. and J. A. Steen (2004), 'The Effects of Ballot Position on Election Outcomes', *Journal of Politics*, 66: 267–281.
- Kramer, A. D. I., J. E. Guillory, and J. T. Hancock (2014), 'Experimental Evidence of Massive-scale Contagion Through Social Networks', *Proceedings of the National Academy of Science*, 111: 8788–8790.
- Kruger, J. and D. Dunning (1999), 'Unskilled and Unaware of it – How Difficulties in Recognizing One's Own Incompetence Lead to Inflated Self-assessments', *Journal of Personality and Social Psychology*, 6: 1121–1134.
- Leggett, W. (2014), 'The Politics of Behaviour Change: Nudge, Neoliberalism, and the State', *Policy and Politics*, 42: 3–19.

- Le Grand, J. and B. New (2015), *Government Paternalism*, Princeton: Princeton University Press.
- Lepenes, R. and M. Malecka (2015), 'The institutional consequences of nudging - nudges, politics and the law', *Review of Philosophy and Psychology*, 6: 427–437.
- Loewenstein, G. A. and D. Adler (1995), 'A Bias in the Prediction of Tastes', *Economic Journal*, 105: 929–937.
- Loewenstein, G. A. and E. C. Haisley (2008), 'The Economist as Therapist: Methodological Ramifications of 'Light' Paternalism', in A. Caplin and A. Schotter (eds.), *The Foundations of Positive and Normative Economics*, Oxford: Oxford University Press, pp. 210–148.
- Loewenstein, G. A. and P. Ubel (2010), 'Economists Behaving Badly', in *New York Times*, July 15, p. A31.
- Loewenstein, G. A., C. Bryce, D. Hagman, and S. Rajpal (2015), 'Warning: You are About to be Nudged', *Behavioral Science & Policy*, 1: 35–42.
- Lusk, J. L., S. Marette, and F. B. Norwood (2014), 'The Paternalist Meets his Match', *Applied Economic Perspectives and Policy*, 36: 61–108.
- Maguire, E. A., D. G. Gadian, I. S. Johnsrude, C. D. Good, J. Ashburner, R. S. J. Frackowiak, and C. D. Frith (2000), 'Navigation-related Structural Change in the Hippocampi of Taxi Drivers', *Proceedings of the National Academy of Sciences*, 97: 4398–4403.
- McCrudden, C. and J. King (2016), 'The Dark Side of Nudging: The Ethics, Political Economy, and Law of Libertarian Paternalism', in A. Kemmerer, C. Möllers, M. Steinbeis, and G. Wagner (eds.), *Choice Architecture in Democracies – Exploring the Legitimacy of Nudging*. Oxford/Baden-Baden: Hart and Nomos.
- McKenzie, C. R. M. (2004), 'Framing Effects in Inference Tasks – and Why they are Normatively Defensible', *Mind & Cognition*, 32: 874–885.
- Mols, F., S. A. Haslam, J. Jetten, and N. K. Steffens (2015), 'Why a Nudge is Not Enough: A Social Identity Critique of Governance by Stealth', *European Journal of Political Research*, 54: 81–98.
- Pedersen, S. K., A. K. Koch, and J. Nafziger (2014), 'Who Wants Paternalism?' *Economics Bulletin*, 66: S147–S166.
- Pommerehne, W. W. and F. Schneider (1978), 'Fiscal Illusion, Political Institutions and Local Public Spending', *Kyklos*, 31: 381–408.
- Qizilbash, M. (2012), 'Informed Desire and the Ambitions of Libertarian Paternalism', *Social Choice and Welfare*, 38: 647–658.
- Rachlinski, J. J. (2003), 'The Uncertain Psychological Case for Paternalism', *Northwestern University Law Review*, 97: 1163–1225.
- Rebonato, R. (2012), *Taking Liberties*, London: Palgrave Macmillan.
- Reisch, L. and C. R. Sunstein (2016), 'Do Europeans like nudges?', Working Paper.
- Reiss, J. (2013), *Philosophy of Economics: A Contemporary Introduction*, London: Routledge.
- Rizzo, M. and D. G. Whitman (2009), 'Little Brother is Watching You: New Paternalism On the Slippery Slopes', *Arizona Law Review*, 51: 685–739.
- Schnellenbach, J. (2012), 'Nudges and Norms: On the Political Economy of Libertarian Paternalism', *European Journal of Political Economy*, 28, 266–277.
- Schnellenbach, J. (2016), 'A Constitutional Economics Perspective on Soft Paternalism', *Kyklos*, 69: 135–156.
- Schnellenbach, J. and C. Schubert (2015), 'Behavioral Political Economy: A Survey', *European Journal of Political Economy*, 40: 395–417.

- Schubert, C. (2014), 'Evolutionary Economics and the Case for a Constitutional Libertarian Paternalism', *Journal of Evolutionary Economics*, **24**: 1107–1113.
- Schubert, C. (2015a), 'Opportunity and Preference Learning', *Economics and Philosophy*, **31**: 275–295.
- Schubert, C. (2015b), 'On the Ethics of Public Nudging: Autonomy and Agency', Working Paper, [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2672970](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2672970) (last accessed December 16, 2016).
- Schubert, C. (2017), 'Green Nudges: Do they Work? Are they Ethical?', *Ecological Economics*, **132**: 329–342.
- Schubert, C. and C. Cordes (2013), 'Role Models that Make you Unhappy: Light Paternalism, Social Learning and Welfare', *Journal of Institutional Economics*, **9**: 131–159.
- Selinger, E. and K. Whyte (2011), 'Is There a Right Way to Nudge? The Practice and Ethics of Choice Architecture', *Sociology Compass*, **5**(10): 923–935.
- Shaw, T. (2016), 'The Psychologists Take Power', in *New York Review of Books*. February 26, <http://www.nybooks.com/articles/2016/02/25/the-psychologists-take-power/> (last accessed December 16, 2016).
- Smith, N. C., D. G. Goldstein, and E. J. Johnson (2013), 'Choice Without Awareness: Ethical and Political Implications of Defaults', *Journal of Public Policy and Marketing*, **32**: 159–172.
- Sugden, R. (2015), 'Opportunity and Preference Learning: A Reply to Christian Schubert', *Economics and Philosophy*, **31**: 297–303.
- Sunstein, C. R. (2013), 'The Storrs Lectures: Behavioral Economics and Paternalism', *Yale Law Journal*, **122**: 1826–1898.
- Sunstein, C. R. (2014), *Why Nudge?*, New Haven: Yale University Press.
- Sunstein, C. R. (2015), 'Nudging and Choice Architecture: Ethical Considerations', Discussion Paper 809, Harvard Law School.
- Sunstein, C. R. (2016), *The Ethics of Influence. Government in the Age of Behavioral Science*, Cambridge: Cambridge University Press.
- Sunstein, C. R. and L. A. Reisch (2013), 'Green by Default', *Kyklos*, **66**, 398–402.
- Sunstein, C. R. and R. H. Thaler (2003), 'Libertarian Paternalism is Not an Oxymoron', *University of Chicago Law Review*, **70**: 1159–1202.
- Tannenbaum, D., C. R. Fox, and T. Rogers. (2014), 'On the Misplaced Politics of Behavioral Policy Interventions', Working Paper. <https://pdfs.semanticscholar.org/0418/4cd62d265d49b300b60528fb0e36692964a8.pdf> (last accessed December 16, 2016).
- Thaler, R. H. (2015a), 'Misbehaving', in *The Making of Behavioral Economics*. New York: W.W. Norton.
- Thaler, R. H. (2015b), 'The Power of Nudges, for Good and Bad', *The New York Times*, October 31, <http://www.nytimes.com/2015/11/01/upshot/the-power-of-nudges-for-good-and-bad.html> (last accessed December 16, 2016).
- Thaler, R. H. and C. R. Sunstein (2003), 'Libertarian Paternalism', *American Economic Review, Papers and Proceedings*, **93**: 175–179.
- Thaler, R. H. and C. R. Sunstein (2008), *Nudge: Improving Decisions about Health, Wealth and Happiness*, New Haven: Yale University Press.
- Thaler, R. H. and S. Benartzi (2013), 'Behavioral Economics and the Retirement Savings Crisis', *Science*, **339**(6124): 1152–1153.

- The Economist. (2016), 'Bringing Light to the Grey Economy', October 15th. <http://www.economist.com/news/international/21708675-new-technology-may-persuade-informal-businesses-and-workers-become-formal-bringing-light> (last accessed December 16, 2016).
- Volokh, E. (2003), 'The Mechanisms of the Slippery Slope', *Harvard Law Review*, 116: 1026–1136.
- White, M. D. (2013), *The Manipulation of Choice: Ethics and Libertarian Paternalism*, New York: Palgrave.
- Whitehead, M., R. Jones, R. Howell, R. Lilley, and J. Pykett (2014), 'Nudging All Over the World - Assessing the Global Impact of the Behavioural Sciences on Public Policy', Available at: <https://changingbehaviours.files.wordpress.com/2014/09/nudgedesignfinal.pdf> (last accessed December 16, 2016).
- White House. (2015), 'Executive Order – using Behavioral Science Insights to Better Serve the American People', <https://www.whitehouse.gov/the-press-office/2015/09/15/executive-order-using-behavioral-science-insights-better-serve-american> (last accessed December 16, 2016).
- Whitman, D. G. and M. Rizzo (2015), 'The Problematic Welfare Standards of Behavioral Paternalism', *Review of Philosophy and Psychology*, 6: 409–425.
- Yeung, K. (2012), 'Nudge as Fudge', *Modern Law Review*, 75: 122–148.