



Nudge Me If You Can! Why Order Ethicists Should Embrace the Nudge Approach

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Abstract

Order ethicists favour incentives as a means for making moral progress but largely ignore an alternative method, namely, nudging, which has come to prominence through the work of behavioural scientists in recent years. In this paper, we suggest that this is a mistake. Order ethicists have no reason to ignore nudging as an alternative method. Arguments they might press against it include worries about paternalism, manipulation, autonomy, and unintended bad consequences. These are, we argue, largely unfounded insofar as they involve misconceptions or affect incentives as well. In particular, we contend that only some, but not all, nudges are paternalistic, manipulative, and autonomy-reducing. The same is true of incentives. Also, both nudges and incentives can have unintended bad consequences. Therefore, order ethicists cannot endorse arguments against nudges without undermining their favourable view of incentives. In addition, there might be positive reasons to prefer nudges to incentives, for instance, when they are more freedom-preserving, more effective, cheaper, easier to implement, or less inequality-inducing than the latter.

Keywords Incentives · Manipulation · Nudging · Order ethics · Paternalism · Unintended consequences

Introduction

So far, order ethicists have largely ignored nudging (for notable exceptions, see Heidbrink, 2015; Rusch & Uhl, 2016; Häußermann, 2020).¹ This is surprising. Nudges are, perhaps, the most salient methodological alternative to incentives—the primary tool of order ethics (OE). In just over a decade, the nudge approach has received more attention than OE ever has.² It has greatly influenced public policy³—both online and offline (see Weinmann et al., 2016). And “no ‘knockdown’ objection has appeared to date that should make us reject the nudge approach overall”, as Andreas Schmidt and Bart Engelen write in their thorough review of

the ethical arguments for and against nudging. Therefore, we believe order ethicists should take nudging seriously

¹ The handbook *Order Ethics* (2016), written by exponents of the order-ethical paradigm, offers snapshots of how order ethicists presently view their theory and reveals how they think about the relationship between order ethics and other theoretical traditions. Authors reflect, for instance, on the implications of psychological findings for order ethics (Grundherr, 2016) and the connections of order-ethical theory with advancements in the theory of justice (Festl, 2016 [Heider & Mukerji, 2016]). Interestingly, however, the terms “nudging” and “libertarian paternalism” do not turn up even once. Cass Sunstein is mentioned only once, and there is no reference at all to Richard Thaler’s work. Much the same is true of the new textbook *Business Ethics* (2021) written by order ethicists Luetge and Uhl. Though it considers behavioural solutions to moral problems (e.g. defaults), it does not consider a nudge approach to order ethics per se. Note, however, that Heidbrink (2015) as well as Rusch and Uhl (2016) have, indeed, discussed whether classical nudges can be construed as instruments of *self-binding* that order ethicists can accept. Also, Häußermann (2020) suggests that nudges could be justified based on a normative foundation that order ethicists favour, namely, contractualism.

² According to Google Scholar, the book *Nudge* (2008) has been cited 13.395 times as of 01 Sept 2019.

³ This holds particularly in the United States where Cass Sunstein, who is, as it were, one of the “founding fathers” of the concept of nudging, served as policy advisor to President Obama. Also, many governments around the world have by now established the so-called “nudge units”, which advise on policy matters.

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and start discussing whether nudges can be preferable to incentives and, if so, when. This paper aims to initiate the discussion.

Below, we show that there are no principled reasons why order ethicists should reject nudging. In particular, nudges are not necessarily paternalistic or manipulative, they need not threaten our autonomy and dignity, and they should not be discarded because they might have unintended bad consequences. These worries affect only some nudges but not all of them. If this were a reason to dismiss nudges throughout, order ethicists would also have to dismiss incentives because these worries also apply to some of them. As we shall see, order ethicists who dismiss nudges run into a further basic problem: incentives cannot be separated from nudges because every incentive regime has behavioural attributes that nudge us—for better or worse. Furthermore, nudges can, in some cases, even be preferable to incentives on grounds that order ethicists should accept. Therefore, they should include nudging into their theoretical framework.

We shall proceed as follows. In Sect. “[What Is Order Ethics?](#)”, we introduce OE and, in Sect. “[What Is Nudging?](#)”, libertarian paternalism, whose proponents argue for the use of nudges. Our discussions of the two approaches are, of course, selective and tailored to our purpose. Then, we explain, in Sect. “[How Nudging May Play a Part in Order Ethics](#)”, how OE can make room for nudging. In Sect. “[Why Order Ethicists Should Not Dismiss Nudges](#)”, we assess likely objections from order ethicists against making that accommodation and show that alleged problems with nudges—paternalistic meddling, manipulation, affronts to autonomy, and unintended consequences—should not lead order ethicists to dismiss them. Of course, we do not aim to exhaust all ethical arguments against nudging.⁴ Instead, we want to initiate the discussion of nudges from an OE perspective. In Sect. “[Why Order Ethicists Should Embrace Nudges](#)”, we outline, finally, potential reasons for preferring nudges before we conclude with a summary in Sect. “[Conclusion](#)”.

What Is Order Ethics?

For our purposes, we propose to analyse OE in terms of its primary *object*, *normative standard*, and *method* for improvement. As the name “order ethics” suggests, it takes the *social order*, that is, the institutional structure of society, as its direct object of evaluation (Mukerji & Luetge, 2014). (That does not mean that it cannot assess other objects, say, acts, agents, etc. In principle, it can. However, it has to

derive such judgements according to the extent to which they are conducive to a desirable social order.)

Now, why does OE focus on the social order instead of other objects of evaluation? Rawls (1971/1999), whose theory of justice resembles order ethics (Heider & Mukerji, 2016), had an answer: The effects of the social order (or “basic structure”) are, for several reasons, “profound and present from the start” (Rawls, 1971/1999, p. 7). One reason is *externalities*. Individuals’ actions affect not only their own well-being but also the welfare of others. A social order can steer behaviour such that what each person does promotes other people’s interests as well. Consider markets. If designed well, they, as part of our social order, create incentives for people to promote each other’s well-being. To promote one’s own advantage, market participants have to offer others something they value.

OE’s guiding normative standard is *Paretianism* (Sen, 1979). Order ethicists seek to examine how the social arrangement can be amended to make everyone better off (as judged by their own preferences).⁵ This second component of OE is, on the standard view, usually derived from a contractualist thought experiment (Luetge, 2012) and work in constitutional economics (Buchanan, 1975a, 1975b/2000; Brennan & Buchanan, 1986/2000).

OE’s method is to analyse public policy issues, following the pioneering work of Karl Homann, by focussing on a particular aspect of the social order, namely, its *incentive regime*. According to Homann, economics, which analyses incentives and their consequences, is the “continuation of ethics by other means” (Homann, 2002, p. 243; translated from German) and the best answer to the question of method. Economics can help us analyse the incentive properties of the existing social order and make predictions about the actions of individuals constrained by it. This analysis aims to devise measures to steer individual behaviour for mutual advantage.

Putting the three parts together, we arrive at what may be called the “Standard Approach to Order Ethics” (SAOE), which reflects, we believe, the most typical commitments of self-proclaimed order ethicists.

Standard Approach to Order Ethics (SAOE)

When facing an apparent moral problem, look towards the social order (primary object) and analyse whether everyone can be made better off (normative standard) by changing incentives (method).⁶

⁵ As Broome (1991) points out, paretianism is actually narrower than the idea that everybody should be made better off. The Pareto principle, Broome says, is in fact tied to a preferentist interpretation of well-being. For a more comprehensive interpretation of paretianism, see Ng (2004).

⁶ For a more comprehensive formulation of SAOE, see Mukerji & Schumacher, 2016a. For an exemplifying application, see Mukerji & Schumacher, 2016b.

⁴ See Bovens (2009), Sunstein (2016), and Schmidt & Engelen (2020), for ethical discussions.

What Is Nudging?

Unlike OE, nudging is not a full-blown ethical approach, although it is often conflated with such an approach, namely, *Libertarian Paternalism* (LP). This conflation might be responsible for the idea that nudging is necessarily paternalistic or manipulative (see Sect. “[Why Order Ethicists Should Not Dismiss Nudges](#)”). But let’s not get ahead of ourselves and start, instead, with LP.

LP is associated with the work of economist Richard Thaler and jurist Cass Sunstein (Sunstein & Thaler, 2003; Thaler & Sunstein, 2008). To approach it, it makes sense to begin by splitting it up into its components, namely, libertarianism and paternalism. The latter, *descriptively construed*,

is the interference of a state or an individual with another person, against their will, and defended or motivated by a claim that the person interfered with will be better off or protected from harm (Dworkin, 2017).

As a *normative view*, paternalism says that this interference is morally justifiable or legitimate if done for the individual’s own benefit. In contrast, *libertarianism* is the contrary notion that the state may not interfere with people’s choices to make them better off (Nozick, 1974). Putting the two together seems to yield a veritable oxymoron, suited, perhaps, for oxen and morons but not for thoughtful people.

Thaler and Sunstein acknowledge this. “According to the conventional wisdom”, they write, “libertarians cannot possibly embrace paternalism, and paternalists abhor libertarianism”. (Sunstein & Thaler, 2003, p. 1160) However, tweaking meanings, they explain that their philosophy is paternalistic insofar as it allows “to influence people’s behavior in order to make their lives longer, healthier, and better”. (Thaler & Sunstein, 2008, p. 5) This, however, has to be done, in keeping with libertarianism, in a “freedom-preserving” manner. Options should not be foreclosed or made significantly less attractive in economic terms. Instead, they should merely be presented in a way that, for psychological reasons, makes people choose them less frequently. LP is *soft paternalism* and *means paternalism* (Sunstein, 2013, 2014, 2016). Unlike hard paternalism, it does not remove freedom of choice, and it takes people’s ends or preferences as a given, providing them with the means to achieve them.

Now we can state the three components of LP. It focuses on the *environment in which individuals choose* (primary object). Sunstein and Thaler aim to provide a framework for improving the properties of this environment to transform it into a deliberately designed “choice architecture” that *increases individuals’ welfare* by their own lights (normative standard). Sunstein and Thaler do not explicitly delimit the application of the term “choice architecture”, however,

which, in its broadest interpretation, seems to refer to any choice environment that has been deliberately devised to influence people’s decisions. But it is clear that they are, like order ethicists, primarily interested in improving institutions and the actions of institutional players. As Thaler and Sunstein say, they focus on the “self-conscious efforts, by institutions in the private sector and also by government, to steer people’s choices in directions that will improve their lives”. (Thaler & Sunstein, 2008, p. 5) The properties they have in mind are not incentives, though. Instead, they are characteristics that predictably alter choice behaviour by triggering psychologically predictable responses (method).

To illustrate, consider the much-discussed example of food services manager Carolyn. She finds that when in school cafeterias unhealthy options, say, cake, are harder to see and healthy ones, say, fruits, more visible, the latter are chosen more often. Carolyn uses this insight to build a choice architecture that promotes students’ well-being, as she thinks they themselves view it: healthy ones are visibly on display, unhealthy ones in the background. (This example raises the worry that nudgers may paternalistically impose their own preferences on nudgees. We will address this point in Sect. “[Why Order Ethicists Should Not Dismiss Nudges](#)” and explain why nudges need not be paternalistic.)

Undoubtedly, order ethicists and libertarian paternalists have much in common. Unlike most moral theorists, neither focus directly on individuals’ choices. Order ethicists focus on the “social order”, while libertarian paternalists concentrate on “choice architectures”. As we said above, both seem to have more or less the same target: institutions that affect and steer people’s choices. Also, the normative standard appears to be quite similar. While order ethicists prefer one social order, A, to another, B, if the former makes every individual better off, libertarian paternalists judge choice architectures by their propensity to make individuals choose well as judged by themselves. If individuals do not differ much in their preferences and responses to the relevant psychological stimuli, libertarian paternalists will advocate implementing choice architectures that make everyone better off. They are, therefore, quite closely aligned with the Paretianism that order ethicists champion.

That said, we should point out that the two camps do emphasise different aspects of the choice environment. While order ethicists focus on the *incentive properties* of the social order, libertarian paternalists concentrate on those aspects that affect its *behavioural properties*. Furthermore, order ethicists tend to focus, through their Paretian lens, on (positive and negative) *externalities* of individual choices on others. In contrast, libertarian paternalists focus mainly on

Table 1 Libertarian paternalism, order ethics, and non-standard order ethics

	Libertarian paternalism (LP)	Standard approach to order ethics (OE)	Non-standard approach to order ethics (NSOE)
Object	Choice architecture	Social order	Social order/choice architecture
Normative Standard	Individual well-being	Paretianism	Paretianism
Method	Create nudges	Modify incentives	Modify incentives + create nudges

internalities, that is, the effects of choices on the individuals *themselves*.⁷ To illustrate, consider smoking. Its adverse health effects *for others* are an externality, while they are an internality “to the extent that people do not take them into account”. (Loewenstein & Charter, 2017, p. 28) However, the most striking difference related to these two points is the difference in *method*. While order ethicists advocate analysing and, if necessary, changing the incentive regime, libertarian paternalists favour nudges. Sunstein and Thaler explain what a nudge is as follows:

A nudge ... is any aspect of the choice architecture that alters people’s behavior in a predictable way *without forbidding any options* or *significantly changing their economic incentives*. (Thaler & Sunstein, 2008, p. 6; emphasis added).

How Nudging May Play a Part in Order Ethics

It is easy to see how nudges may play a part in OE once we consider the possibility that its claim about method is separable from its other components. We said that order ethicists target *externalities* using incentives, while libertarian paternalists target *internalities* using nudges. But there is no reason why order ethicists should not use nudges to target externalities, too. Consider smoking again, which has both internalities (bad health effects for the smoker) and externalities (harmful effects of second-hand smoking for non-smokers). Hence, an anti-smoking nudge (see, for instance, Alemanno, 2012) will inevitably reduce internalities and externalities simultaneously. Accordingly, both order ethicists and libertarian paternalists should endorse it, given their normative standards.

Order ethicists, it seems, have not considered the possibility that nudging can be used to target externalities, which

may have led them to ignore the nudge approach.⁸ This is quite curious since one of the most paradigmatic nudging interventions, the fly-in-the-urinal nudge at Amsterdam’s Schiphol Airport that was intended to reduce spillage, targeted, arguably, *only externalities*. Accordingly, we see no reason why the method of OE should be confined to incentives going forward. In the past, order ethicists may have claimed this as a matter of course (Luetge, 2014).⁹ But, clearly, we can opt for a Non-Standard Approach to Order Ethics (NSOE) that does not confine us like that (Table 1).

This result does not clarify, however, which role nudges should play in NSOE. There are two main possibilities: Order ethicists may opt for *nudges instead of incentives* whenever possible or use *nudges alongside incentives*. With the first possibility, we would throw out the neoclassical baby with the behavioural bathwater. This seems unappealing since OE, as an empirically informed approach to ethics (Luetge et al., 2014), should not prefer nudges a priori. Instead, it should use the method which, on Paretianism, seems ethically most appealing. Whether nudges or incentives are preferable on Paretian grounds is largely an empirical issue. We shall not attempt to argue that nudges are always better. Instead, we aim to show that taking nudges off the table would be unreasonable. To do that, we need to make two claims plausible. We need to establish that the main concerns about the use of nudges are either ill-founded or, insofar as they are apt, apply to incentives as well (Sect. “[Why Order Ethicists Should Not Dismiss Nudges](#)”). Also, we need to show that there may be, at least sometimes, good reasons for using nudges in place of incentives (Sect. “[Why Order Ethicists Should Embrace Nudges](#)”).

Before we proceed, however, let us briefly make two observations we take to be indicative that order ethicists cannot dismiss nudges categorically. Firstly, nudges and

⁷ As an anonymous reviewer has pointed out, the “idea of internalities is contradictory as it seems to spot ‘externalities within the individual.’” Accordingly, it is not possible to make sense of it without reconceptualising the individual as a “dividual”. We tend to agree that there is a tension. However, little in our argument depends on the coherence of the notion of an internality. If, indeed, it cannot be made coherent, nudges can still be used to target externalities.

⁸ An anonymous reviewer has speculated that order ethicists have discarded “a potentially very useful means” because, to them, “it seems so closely connected to the wrong ends”.

⁹ Luetge writes that order ethicists have “for a long time (...) argued that in prisoner’s dilemma situations, neither more ethical knowledge nor more appeals to ethical behavior can improve the situation for the participants”. He thinks that “it is *only* changes in the incentives (in the order framework) that can lead to improvements in ethical ways”. (Luetge, 2014, pp. 31–32; emphasis added) This is doubtful, given the extensive literature on behavioural interventions (see Szasz et al., 2018).

incentives are not mutually exclusive. They can be combined. A tax system, for instance, may offer hidden incentives that can be made more effective using a *salience nudge* that increases their visibility. Secondly, the line between nudges and incentives can be unclear. When a nudge aims to make us choose something we do not want, we can either give in, ending up with A although we prefer B, or resist it, getting B instead. The former choice seems irrational. But it may be “rationally irrational” (Caplan, 2000) once we acknowledge that resisting nudges involves *resistance costs* in the form of cognitive effort that the individual has an incentive to avoid (Loewenstein & O’Donoghue, 2006; Schnellenbach, 2012). If costs (mental work) are not worth benefits (getting what we want), we should, rationally, give in. Whenever this construal is possible, nudges look a lot like incentives. And that is already quite suggestive. Order ethicists, it seems, cannot reject them outright. In the following section, we will try to make that case in detail.

Why Order Ethicists Should Not Dismiss Nudges

Below, we aim to show that the following significant concerns about nudging can either be rejected or pressed against incentives, too: (i) Nudges are paternalistic. (ii) Nudges are manipulative. (iii) Nudges infringe on our autonomy. (iv) Nudges have unintended bad consequences. Note that these are not the only relevant considerations. They merely seem to us best suited to initiate a discussion about the role of nudges within OE.

(i) Paternalism

Many order ethicists have strong reservations when it comes to paternalistic policies (see, for instance, Homann, 2016; Knoepffler & O’Malley, 2016; Rusch & Uhl, 2016), although they seldom argue for their worries or qualify them in terms of important distinctions (soft/hard, means/ends). These reservations seem to be connected with worries about manipulation and possible autonomy infringements due to nudges, as we shall see in subsections (ii) and (iii) below. Before we address these worries, however, let us ask whether order ethicists can reasonably object to nudging based on concerns about paternalism.

This seems initially plausible. After all, nudging is usually connected with LP, which is to some extent paternalistic, as we have discussed in Sect. “What Is Nudging?” above. So, nudging appears paternalistic as well. This reasoning is unsound, however. Firstly, nudges are not necessarily paternalistic—not even in the soft sense. In line with Paretianism, they can be used for mutual benefit, taking seriously the preferences individuals actually have. Secondly, like nudges,

incentives can also be employed paternalistically. Accordingly, to avoid paternalism, order ethicists cannot simply plead for incentives and against nudges.

To illustrate the latter point, consider a modified version of Thaler’s and Sunstein’s cafeteria example. Suppose cafeteria manager Carolyn wants students to choose the healthy option because she thinks this is good for them. Hence, she raises the price of cake and lowers the price of apples. This is flat out paternalistic. Note, though, that she uses incentives, not nudges. Incentives can be a tool for paternalism, too. To be sure, OE guards against such paternalism because it requires that any change in the social order be mutually beneficial *as judged by the individuals’ actual preferences*. But this is not an argument for incentives vis-à-vis nudges. It is an argument for Paretianism.

As for the former point, let us modify the example once again. Now, health considerations are irrelevant. Instead, there is an unfortunate cake shortage. Carolyn does not have enough cake for all students who want some. Only half of them get cake. The problem is that students always prefer cake to apples when given the choice. However, their preferences vary in intensity. On some days, they mildly prefer cake; on others, strongly. Preferences vary randomly for each student, say, with a probability of 0.5 for each scenario. There is, hence, a potential for a mutually beneficial arrangement: Students should get cake when they strongly prefer it but not when they mildly prefer it. This would help everybody, ensuring that all get cake when they crave it while the sacrifice is moderate. Carolyn can use a salience nudge to solve the problem. She can arrange the dessert options such that apples are always clearly visible, but cake is not. This way, she can ensure that students with a mild preference for cake will choose the apples instead, while students with a strong preference for cake will actively seek it out and reliably get it. As the example shows, nudges can create outcomes everybody prefers. Within NSOE, the use of nudges will be constrained such that they can only be used to that end.

But, perhaps, a further anti-paternalist argument is decisive? An opponent of nudging might point out that “those who embrace libertarian paternalism are starting down an alarmingly slippery slope” and that “once we accept modest paternalism for savings or cafeteria lines or environmental protection, highly intrusive interventions will surely follow”. (Thaler & Sunstein, 2008, p. 236) However, slippery-slope arguments assume that it is impossible to draw a clear line between problematic and unproblematic points on the slope. This, Thaler and Sunstein argue, is not so when it comes to nudging. There *is* a clear line between freedom-preserving nudges and objectionable forms of paternalistic government intervention. Note, however, that this point is moot if nudges are divorced from LP as a background philosophy and integrated into NSOE. The latter will ensure that nudges are not

used paternalistically. Note, also, that the same point can be pressed against incentives. They, too, can be used for paternalistic ends. Why, then, are we not on a slippery slope towards paternalism whenever we use incentives?

What if order ethicists object to soft paternalism, too, that is, to any effort towards making people better off by their own lights? Whenever nudges target externalities instead of internalities, this objection is unfounded. But even if nudges target internalities, it is unclear why order ethicists should object. After all, if nudges help everybody make better choices by their own lights, this rules out objections from Paretianism.

Perhaps, the worry is that nudges will inevitably hurt some people? What about a smoker who just does not want to quit? Anti-smoking nudges would, arguably, reduce her welfare, which cannot be justified in Paretian terms—even if others benefit. Evidence is emerging, however, that nudges are primarily mediated by preferences (de Ridder et al., forthcoming). So, if the smoker does not want to quit, it is unlikely that she can be nudged into quitting. Then, again, what if the nudge imposes a “psychological tax” on the smoker? What if she *feels bad* when confronted, say, with reminders that smoking is unhealthy? If taken seriously, this objection would, indeed, be decisive against the softly paternalistic use of nudges. But, from a liberal perspective, it is hard to take it seriously. Liberalism does not treat people like snowflakes.

(ii) Manipulation

A second argument critics are likely to raise against nudging is that they are manipulative (Grüne-Yanoff, 2012; Conly, 2013; Hanna, 2015; Sunstein, 2016). This is not just the paternalism objection by a different name. A policy is paternalistic, as discussed above, if the policymaker seeks to interfere with the person’s behaviour, against her will, because she thinks this will benefit the person. In contrast, it is manipulative if the policymaker aims to change the person’s behaviour by tapping into certain psychological dispositions, thus bypassing reason.¹⁰ Hence, a policy can be paternalistic without being manipulative and vice versa.

¹⁰ Our “bypassing reason account” of manipulation is common (see Hanna 2015; Sunstein 2016), but not unassailable. We would probably have to adjust our argument if we used a different account. Note, however, that our interpretation seems charitable to defenders of SAOE because it tips the scales in favour of the incentivisation method from the start. If person P has reasoned preferences and has a preference for X (*vis-à-vis* some other object), then providing P with an opportunity to obtain X amounts to giving her a reason. Accordingly, incentives can, on our interpretation, never be manipulative for conceptual reasons. On other accounts, this does not necessarily follow, such that incentives, like nudges, may become vulnerable to the charge of manipulation.

Crucially—and this is our answer to the present objection—nudges can be neither paternalistic nor manipulative such that neither objection sticks.

Consider Carolyn again. She uses nudges to help students choose a healthier option. This is not paternalistic if, as we assume, students have explicitly asked her to do this (see Sunstein, 2016, p. 101 ff.). Nevertheless, it might be manipulative depending on the nudge Carolyn chooses. It might be argued that such manipulation should still be a red flag for order ethicists even if a policy is not paternalistic. If, for instance, Carolyn chooses to make healthier options more salient by putting them clearly on display, this may be an instance of a manipulative nudge as it triggers, supposedly, an unconscious behavioural tendency to go for the more salient option.

Note, however, that we often do not know the exact psychological mechanisms that make nudges work (de Ridder et al., 2020). So, it will often be unclear whether they are manipulative. Note, also, that Carolyn could choose an educative nudge that is clearly not manipulative: She could label the food items accordingly (calorie amounts, vitamin levels, etc.), thus giving the students a *rational* reason to prefer some options over others. This would be an example of a nudge that avoids both the paternalism *and* manipulation objection.

Furthermore, some incentives can, in a sense, also be viewed as manipulative.¹¹ Recall what we said at the end of Sect. “How Nudging May Play a Part in Order Ethics”: Incentives can be combined with nudges. An incentive may, for instance, be presented as a gain (“Do this and save X\$ in taxes”) or loss (“Do this or pay X\$ more in taxes”). This can make a significant difference in behaviour because we want to avoid losses more than pursue equivalent gains (Tversky and Kahneman 1979). Also, we observed that nudges might sometimes be hard to distinguish from incentives. Hence, it seems order ethicists have to choose, willy-nilly, which nudges they want to combine with incentives, and some combinations may arguably be called manipulative.

It may be objected that order ethicists can choose a non-manipulative “neutral frame”. They can favour saying: “Do A, and pay X\$ in taxes. Or do B, and pay Y\$ in taxes”. But this is not really neutral as it suppresses information about the *normal* amount citizens pay. In the loss frame, the implied normal amount is lower than in the gain frame, and it may be argued, following Gigerenzer (2015), that citizens want that information to make an informed choice. Be that as it may, order ethicists, we believe, have to consider the nudging literature to navigate these normative issues. It is

¹¹ Faden and Beaucamp (1986) view incentives generally as a form of manipulation.

not enough to say that, unlike incentives, nudges are manipulative. When nudges are manipulative, this may spill over to incentives, and order ethicists should care about that.

(iii) Autonomy

It has been argued that nudges are objectionable to the extent that they threaten the choosers' autonomy (see, for instance, Bovens, 2009; Hausman & Welch, 2010; Wilkinson, 2013).¹² Sometimes, threats to autonomy are also viewed as endangering human dignity (Waldron, 2014; see, also, Rebonato, 2012). These issues are connected with the previous two points.

As Dworkin (2017) points out, autonomy infringement is necessary for hard paternalism (in the sense in which we have explained this notion in Sect. "What Is Nudging?"). Accordingly, if autonomy is not infringed, a measure is not paternalistic in the hard sense and cannot be criticised as such. However, the reverse does not hold. There can be autonomy infringements without hard paternalism. Hence, nudges, which are, as discussed above, never paternalistic in the hard sense because they do not remove options, may still be criticised on grounds of autonomy. Note, however, that this holds only in a specific sense.

We should distinguish autonomy *as freedom from external constraints on choice* from autonomy *as rational agency*. Nudges never threaten autonomy in the first sense because, again, they do not remove options. However, they may threaten autonomy in the second sense if they are manipulative (Wilkinson, 2013). As explained above, though, the manipulation objection does not apply to all nudges. For instance, "providing information and giving advice treats individuals as fully competent decision makers". (Hausman & Welch, 2010, p. 127) Such nudges are not necessarily manipulative if the information is true.¹³ Accordingly, they are not autonomy infringing either, and the autonomy objection, like the previous two criticisms, does not apply to all nudges.¹⁴

¹² Kapsner and Sandfuchs (2015) argue, specifically, that nudges reduce autonomy by affecting privacy.

¹³ Note, however, that it is possible to manipulate using only true information. One can, for instance, draw attention to true information that supports a decision while omitting arguments that speak against it. Also, using a true utterance, one can intend to convey false information via conversational implicature (Grice, 1989).

¹⁴ Initially, it seems helpful to use the distinction between "system 1" and "system 2" (Stanovich, 1999) to identify manipulative nudges. Perhaps, nudges that target our fast, unconscious, and automatic processes (system 1) are manipulative, while nudges that engage our slow, conscious, and reflective processes (system 2) are not. This can only be a rough heuristic, however, since "automatic and reflective thinking may interact, and the latter always seems to depend in one way or another on the former". (Hansen and Jespersen, 2013, p. 14).

If Levy (2019) is correct, this holds for nudges generally. He thinks criticising nudging for bypassing rational agency presupposes that *rationality implies conscious thinking*. Levy rejects this. For instance, we often unconsciously follow recommendations, which seems rational, and many nudges, such as defaults that preselect an option, may be viewed as implicit recommendations. Accordingly, nudges work, Levy thinks, by giving us reasons. They "no more bypass reasoning than philosophical arguments" (Levy, 2019, p. 283) and should, hence, not be seen as a threat to our autonomy.

But even if nudges are manipulative in some way, they might be *autonomy-enhancing* rather than reducing (Sunstein, 2016). Consider a smoker who decides, based on conscious rational deliberation, that she wants to quit. She would welcome nudges that manipulate the unconscious processes that keep her smoking. Such nudges arguably increase her autonomy in the sense that they allow her to choose what she rationally values.

Objections from dignity are often conceptually fuzzy. But Waldron's (2014) complaint seems relatively clear. He thinks nudges take away the "individual's awareness of her own worth as a chooser" and are, as such, "an affront to human dignity". However, nudges that, say, provide valuable information do exactly the opposite: they *enable* the individual to choose well. They are premised on the notion that, equipped with the requisite facts, *the individual can decide for herself*.

Note that incentives can be autonomy-reducing, too. This is true in both senses of "autonomy". Incentives in the form of certain punishments can be so severe that they plausibly remove options, at least for some individuals. And to the extent that incentives can, as discussed above, be presented manipulatively, they, too, can be criticised on grounds of autonomy. Arguably, dignity can also be at stake, especially when monetary rewards are concerned. Offering a proud democrat to pay for her vote or a devout nun for sex can be affronts to these persons' dignity. It tacitly implies they may act against their most cherished values for a bit of cash.

(iv) Unintended Bad Consequences

An eco-conscious shop owner tried to nudge people into bringing their own plastic bags (Bharti, 2019). When they forgot, he would hand them a bag with an embarrassing inscription ("Wart Ointment Wholesale", "Into the Weird Adult Video Emporium", or "The Colon Care Co-Op"). The nudge backfired spectacularly. People could not wait to get their hands on these bags.

Evidence that nudges can backfire does not only come from anecdotes. Unintended effects have also been documented systematically. Thunström et al. (2018), for instance, used salience nudges to make their experimental subjects

aware of opportunity costs. This did not have the desired effect: those who, by their own lights, saved too little (“spendthrifts”) did not reduce spending, and those who already saved too much (“tightwads”) reduced it further. Thus, the nudge reduced welfare. Proponents of nudges acknowledge this possibility but argue that this is no reason to reject them (Sunstein, 2016). They are right.

Firstly, as Sunstein (2015, 2019) notes, there is *no nudge-free alternative*. Every choice situation has intentional or unintentional behavioural properties that nudge us—for better or worse. Accordingly, the issue is not whether we should use nudges, period, but whether we should use this or that particular nudge. It is correct, though, that when choosing between nudges, NSOE theorists should consider unintended effects. On Paretianism, they should be conscious that nudges intended to make everybody better off may make at least some people worse off.

Secondly, unintended bad consequences do not necessarily disqualify nudges. We do not mean to say that, as long as the harmful effects of a nudge for some were *unintended*, they might still be justified because of its good effects for others. That line of justification, which we may get, for instance, from the *doctrine of double effect* (see McIntyre, 2019, for an overview), would indeed be incompatible with NSOE. NSOE, after all, demands improvements *for all*. Instead, our point is that we have to distinguish between actual and expected consequences (Mukerji, 2016, pp. 114–119). What counts, on NSOE, is whether we can improve the *status quo* for all *in expectation*. This is reasonable for multiple reasons.

Plausibly, “no one is obligated beyond what he is able to do”, (Homann, 2016, p. 46) and optimising expected effects is, *ex ante*, the best we can do as epistemic agents. It is also reasonable given OE’s “postulate of incentive-compatible implementability”. (Luetge & Uhl, 2021, p. 36) If a nudge or any other measure is mutually beneficial in expectation, no individual has a rational incentive to block its implementation.

Also, focussing on expected consequences rather than actual consequences conforms with how we deal with risk in modern societies more generally. Consider car travel. Based on statistical considerations, we know, practically for sure, that if enough people travel by car, there will be deaths. However, these unintended bad consequences have so far not kept us from using cars—and reasonably so, since car travel offers advantages for all *in expectation*. To be sure, there is a risk-ethical responsibility to keep bad effects below a tolerable threshold (mandatory seat belts, speed limits, etc.). But the bare fact that there will be unintended bad consequences is not a reasonable argument against car travel if everybody benefits in expectation. Why, then, should it speak against nudges?

Thirdly, incentives may also fail to produce their intended effects or cause unintended bad consequences. After all, OE’s research programme would not make much sense if all incentives always had optimal effects. Then, there would be no point in figuring out how incentive schemes should be designed to create the impact we want. The order-ethical programme tacitly assumes that incentives may be poorly calibrated. This is why order ethicists try to improve them.

Also, there are “perverse incentives”. Some incentives have harmful side effects. For instance, government programmes that support wind power plants intend to reduce carbon emissions. But building wind power plants requires specific rare earth metals whose mining causes, unintentionally, considerable damage to the environment. In some cases, unintended consequences are not mere side effects. Instead, they counteract the very purpose of the incentive. In the case of wind power, we pay the price of adverse side effects. But, at least, we get what we want, namely, emission-free energy. In some cases of perverse incentives, however, we do not even get that.

The perhaps most well-known illustration of this phenomenon is the so-called *cobra effect* (Siebert, 2003) popularised by the German economist Horst Siebert. During the British rule, the Indian city of Delhi was plagued by an out-of-control cobra population, for which the British thought up an incentive-based solution. They offered a cash bounty to anyone who brought in the chopped off head of a cobra. Now, one would expect this measure to have decreased the cobra population as it gave Indians an incentive to kill them. But, in fact, it was a colossal failure. The bounty gave Indians a perverse incentive to breed cobras instead of catching them, as this would maximise their reward over time. When the British rulers noticed this, they stopped the programme. Cobras suddenly lost their value, which prompted their breeders to release them swiftly into the streets, thus making the original problem worse by orders of magnitude. (In comparison, the plastic bag nudge doesn’t look so bad now, does it?).

There are additional, well-known reasons why incentives may backfire. Humans tend to “misbehave” (Thaler, 2015) or act “predictably irrationally”. (Ariely, 2008) They often deviate from norms of rationality both in belief formation and action. Here are two examples.

- According to standard conceptions, to act rationally, we need to update our convictions based on the evidence. There is an incentive to do this. Yet, many people fall prey to *confirmation bias*. Boudewijn de Bruin provides a helpful illustration: Tax professionals assess the risks of various ways of reporting taxes. They do this, largely, by empirically investigating judicial precedents and are strongly incentivised to provide accurate estimates to

reduce litigation costs for their clients. “Even so”, writes de Bruin, “tax professionals favour cases confirming their client’s desired position over cases that refute it”. (de Bruin, 2015, p. 81) Note that incentives are not only idle here. They backfire. The fact that tax professionals are incentivised to optimise their clients’ taxes is part of what causes them to fall prey to the confirmation bias.

- Even if agents’ beliefs are rational, their actions may be irrational. Consider the “sunk costs fallacy” (Arkes & Blumer, 1985; Garland, 1990). Suppose a manager invests in a risky project that does not turn out how she had hoped. She reasons, however, that she should continue the project because she has already invested so much in it. This logic is flawed, of course. Whether the project should continue depends only on whether the additional investment is worth the extra return. Accordingly, the manager has an incentive to discontinue the project. However, the specific incentives properties of the situation create the opposite effect when paired with her fallible human psyche.

Note that incentives can also backfire due to what may be called “rational irrationalities” (see Mukerji, 2022).¹⁵ In the spirit of the “theory of the second-best” (Lipsey & Lancaster, 1956), it may be rational to respond to an irrational action with more irrationality. Suppose, again, a manager invests in a risky project that does not turn out as expected. The costs are “sunk”, and it would be best to discontinue the project. The manager knows this. But she knows, also, that shareholders will be furious once they learn that so much money has been wasted on a project that was subsequently stopped. So, to keep shareholders happy, the manager throws good money after bad.

Moreover, incentives can backfire in the action phase, that is, *after* agents have already formed rational beliefs and settled on a rational course of action. Anybody interested in high-performance sports knows this intuitively: when the stakes (i.e. incentives) are high, even professionals may choke.

This not only happens in sports. Psychologist Sam Glucksberg has documented, in a seminal study (Glucksberg, 1962), that incentives can decrease performance when creativity is required (see Pink, 2011, for an accessible discussion). Subjects were given a candle, matches, and a box of thumbtacks and were asked to use these items to mount the candle to a vertical screen and then light it. The solution

is to empty the box, put the candle in it, use the thumbtacks to tack the box to the screen, and light the candle. Glucksberg found that participants incentivised with a monetary reward did comparatively poorly, while subjects who were not incentivised performed significantly better.

This effect applies in many settings and has led creativity researcher Teresa M. Amabile to comment that an extrinsic reward, specifically money, often “doesn’t help”—“especially when it leads people to feel that they are being bribed or controlled”. (Amabile, 1998, p. 79) To be sure, we are not saying that incentives *invariably* backfire in that way. As Camerer and Hogarth have already put it in their review of the experimental evidence over two decades ago, “[t]he data show that incentives sometimes improve performance, but often don’t” (Camerer & Hogarth, 1999, p. 34).

Finally, order ethicists usually assume, following Becker (1976), that individuals’ preferences on which incentives operate can be taken as fixed (see, also, Becker & Stigler, 1977). But volumes of research, including contributions by Becker himself (see Becker, 1996), have documented that they are not. In particular, it has been shown, repeatedly, that the addition of extrinsic rewards (money, treats, etc.) can either “crowd in” or “crowd out” intrinsic motivation (Frey, 1994).¹⁶

A noteworthy experiment documenting this followed up on a conjecture by Titmuss (1970) that incentives may reduce our sense of civic duty which, initially, met with disbelief among economists (see Arrow, 1972 and, for a response, Singer, 1973). Mellström and Johannesson (2008) analysed how financial incentives affect blood donations and found that women donated significantly less when incentivised. Frey and Oberholzer-Gee (1997) asked Swiss nationals whether they would accept a nuclear waste repository in their community. More than half of respondents agreed to this proposition—perhaps partly out of civic duty. However, when offered a financial reward, support *dropped* to half that. Gneezy and Rustichini (2000) examined the effect of extrinsic motivators in a day-care centre. The centre introduced a monetary penalty of 10 New Israeli shekels (roughly equivalent to 3\$) for parents who picked up their children late. The immediate effect of this incentive was an *increase* in late pick-ups, which persisted even when the penalty was removed. In another study, Ariely et al. (2009) found that workers’ performance does not strictly increase with incentives and sometimes even decreases.

The above points illustrate that incentives can fail to have the desired effect or have unintended bad consequences. Sometimes, incentive-based policies can even counteract their very purpose. Now, we are not saying that this will

¹⁵ The expression “rational irrationality” may be applied to different phenomena. Here, its use is different from Caplan’s (2000) (see Sect. “How Nudging May Play a Part in Order Ethics”). In game theory, it has yet a different use: it may be rational to portray oneself as irrational because this may make a rational opponent give in (e.g. by swerving the car in the game of chicken).

¹⁶ Order ethicists Luetge and Uhl (2021, 146–147) acknowledge this effect.

inevitably be the case and that, therefore, all incentive schemes are to be rejected. Our point is, merely, that incentives do not always work because it is hard to predict how people will react to them. Incentives share this property with nudges. It is an empirical issue what the best solution is in any given situation. In any case, possible adverse effects of nudges are certainly not a reason to always prefer incentives.

In summary, nudges are not necessarily paternalistic, manipulative, or autonomy infringing. Some nudges are. But this is also true of some incentives. Furthermore, nudges can have unintended bad consequences. This, however, is not a knockdown case against them either. For one thing, there is, arguably, no nudge-free alternative. All we can do is choose the behavioural properties of choice environments in an evidence-based manner to reduce bad effects. Furthermore, it is not even ethically required to work towards eliminating all bad unintended consequences. What counts is whether a nudge (or any other intervention) is to everybody's advantage *in expectation*. Lastly, incentives can backfire in the same way, as we have discussed at length at the end of this section.

Why Order Ethicists Should Embrace Nudges

Let us recap. Objections against nudging that are likely to be raised from the perspective of OE are misguided when they are brought up against all nudges, and the more specific ones that target only some nudges also apply to some incentives. Accordingly, it seems unreasonable for order ethicists to reject nudging throughout. But do order ethicists have a *positive* reason to prefer nudges to incentives and, therefore, NSOE to SAOE? In this section, we argue that, sometimes, they do.

Nudges are Freedom-Preserving

Since OE has its roots in the works of liberal thinkers (e.g. Hayek, Buchanan), this should count. Order ethicists should prefer nudges when they restrict choice less than incentives. Consider obesity. It increases health care costs for all. Therefore, every citizen may benefit from fighting it. One approach is to tax foods according to their calorie content, which is, arguably, freedom-restricting. A more freedom-preserving alternative is to nudge consumers through product labels (Rusch & Uhl, 2016).

Nudges Can Be the Better Choice

There are two aspects to consider: effectiveness and impact-to-costs ratio. Although a "sin tax" on socially undesirable behaviour may make economic sense (O'Donoghue & Rabin, 2006), nudges may be more effective. Specifically,

as Rusch and Uhl (2016) point out, the Danish "fat tax" to disincentivise calorie intake did little to reduce consumption and was quickly abolished due to its unpopularity (Pederson et al., 2014), but evidence from Ellison et al. (2013) suggests that nudges (calorie labels) can work. More generally, when markets fail for behavioural reasons, that is, when the incentives are right, but people do not recognise them, opportunities for mutually advantageous transactions may be left on the table and Pareto suboptimal outcomes may ensue. When this happens, Sunstein believes, "*nudges are usually the best response, at least when there is no harm to others*". (Sunstein, 2014, p. 17; emphasis in the original) This point is strengthened if we consider not only effectiveness but also costs. Nudges often have a favourable impact-to-cost ratio and should often be viewed as the better choice even if their effects are not large (Benartzi et al., 2017).

Nudges are Sometimes the Only Alternative for Improvement

There can be several reasons for this.

- Suppose an incentive scheme is already optimal. It is impossible to improve everyone's lot by further fiddling with it. In that case, the only alternative left to improve the situation is to resort to other methods of influence and, possibly, nudges.
- Introducing or reforming incentive regimes is usually rather costly. It requires legislation, laws must be enforced, and violations dealt with judicially. Nudges, in contrast, often require no deep institutional reforms but only redesigned forms and tweaked administrative processes (Benartzi et al., 2017).
- The political game is marked by obstructionism, and politicians often try to block change if this benefits them. Sometimes, it may be impossible to reform incentive schemes but possible to implement nudges, which can be implemented in small steps by the executive branch alone (Loewenstein & Charter, 2017). And when legislative action is required, nudges arguably stand a chance to receive the necessary support due to bipartisan agreement on many forms of nudging (Sunstein, 2016, Appendix A).
- The latter point may matter, especially in times of crisis when fast action is required. Dai et al. (2021) found, for instance, that nudges (text-based reminders) can speed up vaccine uptake at "close-to-zero marginal costs" by reducing the most significant barrier to vaccination, namely, scheduling first-dose appointments.
- Many people may believe of "certain commodities or services that other people 'ought' not to sell [them] for 'money.'" (Tullock & Buchanan, 1962, p. 268) For instance, in many countries, people support organ dona-

tions. Nevertheless, few people opt to become organ donors should they die. Although there may be widespread support for measures to increase donations, incentives may be seen as inappropriate because the willingness to donate one's organs is, morally speaking, something "money can't buy".¹⁷ (Sandel, 2012) However, transparent default nudges with unbureaucratic opt-out procedures may meet the consent of the governed while being very effective (Johnson & Goldstein, 2003). Below, we shall come back to the issue of consent.

Nudges Can Be Informative

Many employees, for instance, do not save for retirement because they go with the natural default (no enrolment), although there are incentives to save (avoid poverty). In contrast, many nudges, say, default enrolments in saving plans, work, arguably, because people extract information from them (Gigerenzer, 2015; Levy, 2019). They think "heuristically", that is, in terms of rules of thumb, when they do not have enough information. Defaults, in particular, may be treated as recommendations (Mckenzie et al., 2006; Willis, 2013), which is in line with Sunstein's and Thaler's intentions. "Libertarian paternalists", they write, "would like to set the default by asking what reflective employees ... would actually want". (Thaler & Sunstein, 2008, p. 12)

Nudges May Help People Discover What They Want When Unsure

Because nudges inform us, they may alter our preferences and values (Sunstein, 2016). In some cases, they may even help us figure out what we want in the first place (Thaler & Sunstein, 2008, pp. 75–76). We think that the help nudges can provide in the process of preference formation is a further reason why order ethicists should sometimes favour them over incentives (however, see Kniess, 2022, for objections we cannot presently address). This holds at least on a specific interpretation of their view. Let us explain.

As Paretians, order ethicists support institutional changes that allow individuals to get more of what they want. This raises the question of how we can determine what people want. To do this, order ethicists tend to follow the revealed preference approach (RPA) (Samuelson, 1938, 1948). On the RPA, what people *want*, considering opportunity costs, is what they *choose*. The approach has two interpretations: (i) Choosing *means* wanting. (ii) Choosing *is evidence for* wanting.

According to (i), the fact that a person chooses an option settles, by conceptual necessity, the question of what the person wants because "choosing" and "wanting" *mean the same thing*. It would not make sense, then, to say that a person chose an option she did not want—just like it would not make sense to say that a man is both married and a bachelor.

If order ethicists follow the RPA in interpretation (i), they should not take issue with freedom-preserving nudges. If people choose A when nudged, this means that they want A when nudged. If they choose B without a nudge, this means they want B when not nudged. Either way, they get what they want. Arguably, however, since people get what they want with or without nudge, nudging does not help them in any meaningful way, and order ethicists have no reason to prefer nudges over incentives. This changes on interpretation (ii) of the RPA, which seems more plausible and more in line with what Samuelson had in mind when he devised the approach (Samuelson, 1948; see, also, Hands, 2001, p. 93 ff. and Wong, 1978/2002).

On (ii), it is conceptually possible for a person to choose A over B without preferring A over B. This is because, on (ii), *choice is merely evidence of preference, but not identical with it*. There can, for instance, be situations in which a person has to make a choice without having formed a preference about her options. In such situations, nudges, such as defaults that are interpreted as recommendations, can help by providing information the chooser can use to figure out what she wants. Such help seems desirable for at least three reasons. Firstly, without a preference regarding A and B, one cannot, for conceptual reasons, choose the option one *wants*—because wanting something implies having a preference for it; secondly, choosing without knowing what one wants can be an unpleasant experience in itself due to anticipated regret (Elster, 1983); and, thirdly, "[t]o define from scratch for oneself a pattern of wants is a strenuous (and, beyond a certain point, impossible) undertaking". (Barry, 1965, p. 75) So, helpful assistance through nudges should be welcomed.

The present point recommends nudges. But it also cautions us against incentives when choosers are uncertain about their preferences. It is easy to see why: While nudges can, at least sometimes, help us figure out what we want, incentives must operate on *pre-existing* preferences. Although it may, pace Becker and Stigler (1977), be possible to *change* preferences through incentives (see Sect. "Why Order Ethicists Should Not Dismiss Nudges" iv), it is not clear how incentives could help us *form* preferences if we do not have any to start with.

However, whether particular nudges actually do help choosers when they are unsure is an empirical issue. That said, there is plenty of evidence that "preferences are commonly constructed in the process of elicitation" (Tversky and Thaler 1990, 210), such that defaults and other nudges

¹⁷ Boulware et al. (2006) found, for instance, that the US public tends not to support incentives for deceased donations.

should, plausibly, often be effective in that way (see Willis, 2013, pp. 1168–1170). Huh et al., (2014, Experiment 3), for instance, compared the comparative influence of social defaults, that is, defaults which are inferred from observing the choices of others, in situations in which choosers were unfamiliar with alternatives (Korean teas) to situations where they knew them (British teas). They found a significant interaction effect between default and product type, suggesting the effect may be mediated through preference formation. In a later study, Schulz et al. (2018) studied charitable giving. They found that providing would-be donors with a list of default charities doubles the number of people donating as well as the total amount donated. The authors hypothesise, following McKenzie et al. (2006), that this effect may be explained, at least partly, by the fact that donors viewed the list as a recommendation and used it to form a preference.

Nudges Have the People's Consent

But there are different kinds of consent, and they can be more or less controversial. The most uncontroversial kind is *explicit consent*, which we find, for instance, when nudges are offered as self-commitment devices, say, in the form of self-deployed reminders and prompts (Reijula & Hertwig, 2022).

Nudges may also be consented to *implicitly*, which will be more controversial. *Transparent* nudges that nudgees have been made aware of but do not avoid may be viewed as having been agreed to in that way.

Furthermore, in the OE framework, there can be forms of consent that are mediated through institutions. OE, recall, aims to make everybody better off through rule changes. On revealed preference theory, there is one primary source of evidence that a rule is better for everybody, namely, universal consent in a vote. However, modern large-scale societies would be ungovernable if all rule changes were actually voted on and required a unanimous consensus. This would not be in anyone's best interest. Accordingly, OE's legitimacy test is not whether everybody (implicitly or explicitly) consents to a given policy measure but whether everybody would, hypothetically, agree to how it is made (Tullock & Buchanan, 1962; Brennan & Buchanan, 1986/2000).

In a *representative democracy*, elected representatives choose. Accordingly, to the extent that this practice has the consent of the governed, what representatives choose has, by extension, the people's approval if the basic rules are appropriately applied. That means when representatives implement nudges, these nudges have the people's consent.

In a *majoritarian system*, on the other hand, rule changes have the consent of the governed if a majority favours them. At least some nudges implemented in recent years appear to

have that kind of consent. "Strong majorities", writes Sunstein, "tend to be supportive of nudges of the kind that have been seriously proposed, or acted on, by actual institutions in recent years". (Sunstein, 2016, p. 118) Crucially, this finding "extends across standard partisan lines", unifying Democrats and Republicans (Sunstein, 2016, Appendix A; see Jung & Mellers, 2016, for consonant conclusions). Similar findings exist for European countries (Reisch & Sunstein, 2016). (In contrast, certain incentives, for which a nudging alternative exists, are very unpopular. The Danish "fat tax" mentioned above, for instance, "proved so unpopular that it was abolished" briefly after its introduction, as Pederson et al., 2014 report). Now, the extent to which particular nudges can claim consent will differ. But it seems evident that nudges that are unobjectionable on all counts and which NSOE would advocate can be designed.

Nudges Can Particularly Help the Least Well-Off

To be sure, helping the poor and promoting equality is, both on SAOE and NSOE, not an end in itself. What counts, on both approaches, is making everybody better off as compared to the status quo. If unequal income and wealth distributions ensue in the process, so be it. However, it has been emphasised that, even on SAOE, everybody should, for instrumental reasons, favour policies that mainly benefit the least advantaged—an argument that, of course, extends to NSOE.

Firstly, we should, arguably, hedge our bets. Even if we do not belong to the worst-off now, we might later. Accordingly, we should support, at least to some extent, policies, including nudges, to enhance the welfare of the least advantaged. Secondly, nudging the poor to make better choices may lift them out of poverty. This would benefit all by reducing redistribution within the welfare state as fewer people depend on support. Additionally, *Rawlsian order ethicists* have argued that we should replace OE's Paretianism with the Rawlsian difference principle, which demands that the least well-off be made as well-off as possible (Heider & Mukerji, 2016). These OE theorists have an additional, intrinsic reason to advocate for equality-promoting nudges.¹⁸

¹⁸ Other normative criteria may yield the same result. [Mukerji & Luetge, 2014], for instance, draw attention to the possibility of a "utilitarian order ethics", which would aim to produce "the most happiness for all". Such a theory would, as Sen (1997) points out, also have a strong egalitarian tendency because redistributing material means from the top to the bottom will tend to increase welfare overall due to the law of diminishing marginal returns. The same would hold for a "prioritarian order ethics", which would prioritise the well-being of a person in inverse proportion to how well-off she is. It would also hold for a "pluralistic order ethics", which combines multiple criteria, and for multiplicative approaches to computing well-being (Mukerji 2016, 161).

Some scholars have hypothesised that nudges may benefit the poor less than the wealthy because the former may be “nudge-proof”, (Roberts, 2018) while others, notably Thaler and Sunstein, have suggested that nudging will particularly “help those who need help”. (Thaler & Sunstein, 2008, p. 242) Evidence is emerging that nudges often disproportionately benefit the poor.

As Banerjee and Duflo (2010, 140) argue, this certainly holds for the very poor. There is “a strong association between poverty and the level of cortisol produced by the body”, which is known to impair cognitive function and decision-making. Thus, the poor stand to gain much from nudges that compensate for lack in cognitive function and decision-making ability (for instance, defaults that are reasonable for most people).

Mrkva et al. (2021) hypothesise, more generally, that there might be a correlation between socio-economic status (SES) and the effect of nudges. This relationship seems likely because differences in SES are associated with differences in numeracy, financial literacy, and health literacy, which are essential in many life choices. Nudges targeting these factors should benefit low SES individuals more than high SES individuals. Focussing on consumer choices, financial decisions, and health-related matters across several contexts (where one option was clearly best for all subjects), they confirmed their hypothesis: low SES individuals “were impacted more by nudges” and “effects were sizable” (Mrkva et al., 2021, p. 80).

To date, the evidence that many nudges might be effective tools for promoting socio-economic equality, looks promising (for an overview, see Sunstein, 2021) although, certainly, more research needs to be done. In contrast, many incentive-based policies are, arguably, inequality-inducing because incentive payments will tend to flow only to a select few. This is undoubtedly the case with exorbitant executive compensation, which Luetge (2016), a proponent of SAOE, discusses favourably while explicitly acknowledging their inequality-inducing effects. Nudging policies will typically avoid such effects because no monetary compensation is involved. Accordingly, whenever they can get the job done just as well (or nearly as well) as financial incentives, proponents of NSOE (and Rawlsian order ethicists, in particular) should consider them.

Note, however, that specifics matter.¹⁹ When fines can incentivise people, they may be calibrated to cost the rich more than the poor, and the proceeds could flow back to the people as a dividend. Such a redistributive incentive scheme is attractive in terms of equality, and there is no way to replicate its effects using nudges. But, again, specifics matter:

Should it turn out, say, that the rich have a way of avoiding fines, while the poor do not, this changes things, and nudges become more attractive in comparison. This is why order ethicists should attend carefully to the empirical effects of nudges vis-à-vis incentives and then choose accordingly. We have not argued that nudges are *always* preferable—be it in terms of equality or otherwise. Instead, we have merely disputed the view that order ethicists have sound principled objections to nudges and have contended, in this section, that they should sometimes prefer nudges to incentives.

Conclusion

In this paper, we have argued that order ethicists should not ignore nudges, as they have in the past. As we have seen, likely arguments against nudging, which we have considered above, are either based on misconceptions or affect incentives as well, which makes nudges and incentives “partners in guilt”. In particular, nudges are not generally paternalistic or manipulative, they do not threaten our autonomy and dignity, and they should not be brushed aside because they might have unintended bad consequences. All these arguments could be turned against incentives as well. So, order ethicists do not seem to have any reason to dismiss nudging. Also, there are, at least sometimes, grounds to prefer nudges to incentives: They preserve freedom and may be the better choice in terms of their effectiveness and impact-to-costs ratio—sometimes even trivially so because there are no alternatives. Also, nudges can inform people and help them figure out what they even want. These are advantages incentives, generally speaking, do not have. Furthermore, many nudges arguably have the people’s consent (in more than one sense) or could be constructed so that they do. Finally, evidence is emerging that nudges can be of particular help to the least well-off in society.

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¹⁹ We would like to thank an anonymous reviewer for suggesting this clarification.

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References

- Alemanno, A. (2012). Nudging smokers—The behavioural turn of tobacco risk regulation. *European Journal of Risk Regulation*, 3(1), 32–42.
- Amabile, T. (1998). How to kill creativity. *Harvard Business Review*, 76(5), 77–87.
- Ariely, D. (2008). *Predictably irrational*. HarperCollins.
- Ariely, D., Gneezy, U., Lowenstein, G., & Mazar, N. (2009). Large stakes and big mistakes. *Review of Economic Studies*, 76(2), 451–469.
- Arkes, H. C., & Blumer, C. (1985). The psychology of sunk costs. *Organizational Behaviour and Human Decision Processes*, 35, 124–140.
- Arrow, K. (1972). Gifts and exchanges. *Philosophy & Public Affairs*, 1(4), 343–362.
- Barry, B. (1965). *Political argument*. Routledge & Kegan Paul.
- Bharti, B. (2019). A grocery store's plan to shame shoppers for using plastic bags completely backfired. National Post, 11 July 2019.
- Becker, G. S. (1976). *The economic approach to human behavior*. University of Chicago Press.
- Becker, G. S. (1996). *Accounting for tastes*. Harvard University Press.
- Becker, G. S., & Stigler, G. J. (1977). De Gustibus Non Est Disputandum. *American Economic Review*, 67(2), 76–90.
- Benartzi, S., Beshears, J., Milkman, K., Sunstein, C., Thaler, R., Shankar, M., Tucker-Ray, W., Congdon, W., & Galing, S. (2017). Should Governments invest more in nudging? *Psychological Science*, 28(8), 1041–1055.
- Boulware, L. E., Troll, M. U., Wang, N. Y., & Powe, N. R. (2006). Public attitudes toward incentives for organ donation: A national study of different racial/ethnic and income groups. *American Journal of Transplantation*, 2006(6), 2774–2785.
- Bovens, L. (2009). The ethics of nudge. In T. Grüne-Hanoff & S. O. Hansson (Eds.), *Preference changes—Approaches from philosophy, economics, and psychology* (pp. 207–219). Springer.
- Brennan, G., & Buchanan, J. M. (1986). *The reason of rules*. Indianapolis: Liberty Fund.
- Broome, J. (1991). *Weighing goods: Equality, uncertainty, and time*. Oxford: Basil Blackwell.
- Buchanan, J. M. (1975a). *The limits of liberty*. Indianapolis: Liberty Fund.
- Buchanan, J. (1975b). *The limits of liberty. Between Anarchy and Leviathan*. Chicago: University of Chicago Press.
- Camerer, C. F., & Hogarth, R. M. (1999). The effects of financial incentives in experiments: A review and capital-labor-production framework. *Journal of Risk and Uncertainty*, 19(1), 7–42.
- Caplan, B. (2000). Rational irrationality: A framework for the neo-classical-behavioral debate. *Eastern Economic Journal*, 26(2), 191–211.
- Conly, S. (2013). *Against autonomy—Justifying coercive paternalism*. Cambridge University Press.
- Dai, H., Saccardo, S., Han, M., Roh, L., Raja, N., Vangala, S., Modi, H., Pandya, S., Sloyan, M., & Croymans, D. M. (2021). Behavioural nudges increase COVID-19 vaccinations. *Nature*, 597, 404–409.
- de Bruin, B. (2015). *Ethics and the global financial crisis—Why incompetence is worse than greed*. Cambridge University Press.
- de Ridder, D., Feitsma, J., van den Hoven, M., Kroese, F., Schillemans, T., Vermeij, M., Venema, T., Vugts, A., & de Vet, E. (2020). Simple nudges that are not so easy. *Behavioral Public Policy*. <https://doi.org/10.1017/bpp.2020.36>
- Dworkin, G. (2017). Paternalism. In E. N. Zalta (ed.), *The Stanford Encyclopedia of philosophy* (Winter 2017 ed.). Retrieved from <https://stanford.io/3tUhbqh>.
- Ellison, B., Lusk, J. L., & Davis, D. (2013). Looking at the label and beyond: The effects of calorie labels, health consciousness, and demographics on caloric intake in restaurants. *International Journal of Behavioral Nutrition and Physical Activity*, 10, 21.
- Elster, J. (1983). *Sour grapes*. Cambridge University Press.
- Faden, R. R., & Beauchamp, T. L. (1986). *A history and theory of informed consent*. Oxford University Press.
- Festl, M. (2016). Boost up and merge with: Order ethics in the light of recent developments in justice theory. In C. Luetge & N. Mukerji (Eds.), *Order ethics: An ethical framework for the social market economy* (pp. 167–180). Dordrecht: Springer.
- Frey, B. S. (1994). How intrinsic motivation is crowded out and in. *Rationality and Society*, 6(3), 334–352.
- Frey, B. S., & Oberholzer-Gee, F. (1997). The cost of price incentives: An empirical analysis of motivation crowding-out. *American Economic Review*, 87(4), 746–755.
- Garland, H. (1990). Throwing good money after bad: The effect of sunk costs on the decision to escalate commitment to an ongoing project. *Journal of Applied Psychology*, 75(6), 728–731.
- Gigerenzer, G. (2015). On the supposed evidence for libertarian paternalism. *Review of Philosophy and Psychology*, 6(3), 361–383.
- Glucksberg, S. (1962). The influence of strength of drive on functional fixedness and perceptual recognition. *Journal of Experimental Psychology*, 63(1), 36–41.
- Gneezy, U., Meier, S., & Rey-Biel, P. (2011). When and why incentives (don't) work to modify behavior. *Journal of Economic Perspectives*, 25(4), 191–210.
- Gneezy, U., & Rustichini, A. (2000). A fine is a price. *Journal of Legal Studies*, 29, 1–17.
- Grice, P. H. (1989). *Studies in the way of words*. Harvard University Press.
- Grüne-Yanoff, T. (2012). Old Wine in New Casks: Libertarian Paternalism Still Violates Liberal Principles. *Social Choice and Welfare*, 38, 635–645.
- Hands, D. W. (2001). *Reflection without rules*. Cambridge University Press.
- Hanna, J. (2015). Libertarian paternalism, manipulation, and the shaping of preferences. *Social Theory and Practice*, 41(4), 618–643.
- Hansen, P., & Jespersen, A. (2013). Nudge and the manipulation of choice: A framework for the responsible use of the nudge approach to behaviour change in public policy. *European Journal of Risk Regulation*, 4(1), 3–28.
- Hausman, D. M., & Welch, B. (2010). Debate: To nudge or not to nudge. *Journal of Political Philosophy*, 18(1), 123–136.
- Häußermann, J. J. (2020). Nudging and participation: A contractualist approach to behavioural policy. *Philosophy of Management*, 19(1), 45–68.
- Heidbrink, L. (2015). Libertarian paternalism, sustainable self-binding and bounded freedom. In D. Birnbacher & M. Thorseth (Eds.), *The politics of sustainability* (pp. 173–194). Routledge.
- Heider, L., & Mukerji, N. (2016). Rawls, order ethics, and Rawlsian order ethics. In C. Luetge & N. Mukerji (Eds.), *Order ethics: An ethical framework for the social market economy* (pp. 149–166).
- Homann, K. (2002). *Vorteile und Anreize: zur Grundlegung einer Ethik der Zukunft*. Tübingen: Mohr Siebeck.
- Homann, K. (2016). Two strategies of business ethics. In C. Luetge & N. Mukerji (Eds.), *Order ethics: An ethical framework for the social market economy* (pp. 37–54). Springer.

- Huh, Y. E., Vosgerau, J., & Morewedge, C. K. (2014). Social defaults: Observed choices become choice defaults. *Journal of Consumer Research*, 41(3), 746–760.
- Johnson, E. J., & Goldstein, D. (2003). Do defaults save lives? *Science*, 302(5649), 1338–1339.
- Jung, J. Y., & Mellers, B. A. (2016). American attitudes towards nudges. *Judgment and Decision Making*, 11(1), 62–74.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47(4), 263–291.
- Kapsner, A., & Sandfuchs, B. (2015). Nudges as a threat to privacy. *Review of Philosophy and Psychology*, 6(3), 455–468.
- Kniess, J. (2022). Libertarian paternalism and the problem of preference architecture. *British Journal of Political Science*, 52(2), 921–933.
- Knoepffler, N., & O'Malley, M. (2016). An ordonomic perspective in medical ethics. In C. Luetge & N. Mukerji (Eds.), *Order ethics: An ethical framework for the social market economy* (pp. 311–328). Springer.
- Levy, N. (2019). Nudge, nudge, wink, wink—Nudging is giving reasons. *Ergo*, 6(10), 281–302.
- Lipsey, R. G., & Lancaster, K. (1956). The general theory of second best. *Review of Economic Studies*, 24(1), 11–32.
- Loewenstein, G., & Charter, N. (2017). Putting nudges in perspective. *Behavioural Public Policy*, 1(1), 26–53.
- Loewenstein, G., & O'Donoghue, T. (2006). We can do this the easy way or the hard way—Negative emotions, self-regulation, and the law. *The University of Chicago Law Review*, 73(1), 183–206.
- Luetge, C. (2012). Fundamentals of order ethics: Law, business ethics, and the financial crisis. *ARSP Beihefte*, 130, 11–21.
- Luetge, C. (2014). Chances, problems, and limits of experimental ethics. In C. Luetge, H. Rusch, & M. Uhl (Eds.), *Experimental ethics—Towards an empirical moral philosophy* (pp. 26–37). Palgrave Macmillan.
- Luetge, C. (2016). Executive compensation. In C. Luetge & N. Mukerji (Eds.), *Order ethics: An ethical framework for the social market economy* (pp. 349–361). Springer.
- Luetge, C., & Mukerji, N. (Eds.). (2016). *Order ethics—An ethical framework for the social market economy*. Springer.
- Luetge, C., Rusch, H., & Uhl, M. (2014). *Experimental ethics—Toward an empirical moral philosophy*. Palgrave Macmillan.
- Luetge, C., & Uhl, M. (2021). *Business ethics—An economically informed perspective*. Oxford University Press.
- McIntyre, A. (2019). Doctrine of double effect. In E. N. Zalta (ed.), *The Stanford Encyclopedia of philosophy* (Spring 2019 ed.). Retrieved from <https://stanford.io/3HR2AIH>.
- McKenzie, C. R. M., Liersch, M. J., & Finkelstein, S. R. (2006). Recommendations implicit in policy defaults. *Psychological Science*, 17(5), 414–420.
- Mellström, C., & Johannesson, M. (2008). Crowding out in blood donation: Was Titmuss right? *Journal of the European Economic Association*, 6(4), 845–863.
- Mrkva, K., Posner, N. A., Reeck, C., & Johnson, E. J. (2021). Do nudges reduce disparities? choice architecture compensates for low consumer knowledge. *Journal of Marketing*, 85(4), 67–84.
- Mukerji, N. (2016). The case against consequentialism reconsidered. Cham: Springer.
- Mukerji, N. (2022). The transcendent significance of highfalutin bullshit (Unpublished manuscript).
- Mukerji, N., & Luetge, C. (2014). Responsibility, order ethics, and group agency. *Archives for Philosophy of Law and Social Philosophy*, 100(2), 176–186.
- Mukerji, N., & Schumacher, C. (2016a). Order ethics, economics, and game theory. In C. Luetge & N. Mukerji (Eds.), *Order ethics: An ethical framework for the social market economy*. Cham: Springer. https://doi.org/10.1007/978-3-319-33151-5_7.
- Mukerji, N., & Schumacher, C. (2016b). Is the minimum wage ethically justifiable? An order-ethical answer. In C. Luetge, & N. Mukerji (Eds.), *Order ethics: An ethical framework for the social market economy*. Cham: Springer. https://doi.org/10.1007/978-3-319-33151-5_16.
- Ng, Y.-K. (2004). *Welfare Economics: Towards a More Complete Analysis*. Palgrave Macmillan.
- Nozick, R. (1974). *Anarchy, state, and Utopia*. Basic Books.
- O'Donoghue, T., & Rabin, M. (2006). Optimal sin taxes. *Journal of Public Economics*, 90(10–11), 1825–1849.
- Pederson, S. K., Koch, A. K., & Nafziger, J. (2014). Who wants paternalism? *Bulletin of Economic Research*, 66, S147–S166.
- Pink, D. (2011). *Drive—The surprising truth about what motivates us*. Riverhead Books.
- Rawls, J. (1971). *A theory of justice*. Cambridge, MA: Belknap Press.
- Rebonato, R. (2012). *Taking liberties: A critical examination of libertarian paternalism*. Palgrave Macmillan.
- Reijula, S., & Hertwig, R. (2022). Self-nudging and the citizen choice architect. *Behavioural Public Policy*, 6(1), 119–149.
- Reisch, L., & Sunstein, C. R. (2016). Do Europeans like nudges? *Judgment and Decision Making*, 11(4), 310–325.
- de Ridder, D., Kroese, F., & van Gestel, L. (forthcoming). Nudgeability: Mapping conditions of susceptibility to nudge influence. *Perspectives on Psychological Science*.
- Rusch, H., & Uhl, M. (2016). Order ethics—An experimental perspective. In C. Luetge & N. Mukerji (Eds.), *Order ethics: An ethical framework for the social market economy* (pp. 67–78). Springer.
- Samuelson, P. (1938). A note on the pure theory of consumer's behavior. *Economica*, 5(17), 61–71.
- Samuelson, P. (1948). Consumption theory in terms of revealed preference. *Economica*, 15(60), 243–253.
- Sandel, M. (2012). *What money can't buy—The moral limits of markets*. Farrar, Staus, and Giroux.
- Schnellenbach, J. (2012). Nudges and norms: On the political economy of soft paternalism. *European Journal of Political Economy*, 28(2), 266–277.
- Schulz, J. F., Thiemann, P., & Thöni, C. (2018). Nudging generosity: Choice architecture and cognitive factors in charitable giving. *Journal of Behavioral and Experimental Economics*, 74, 139–145.
- Sen, A. K. (1979). Utilitarianism and welfarism. *The Journal of Philosophy*, 76(9), 463–489.
- Sen, A. K. (1997). Equality of what? In A. K. Sen (Ed.), *Choice, welfare and measurement* (pp. 353–370). Harvard University Press.
- Siebert, H. (2003). *Der Kobra Effekt. Wie man Irrwege der Wirtschaftspolitik vermeidet*. Piper.
- Singer, P. (1973). Altruism and commerce: a defense of titmuss against arrow. *Philosophy & Public Affairs*, 2(3), 312–320.
- Stanovich, K. (1999). *Who is rational? Studies of individual differences in reasoning*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Sunstein, C. R. (2013). The Storrs lectures: Behavioral economics and paternalism. *The Yale Law Review*, 122(7), 1826–1899.
- Sunstein, C. R. (2014). *Why nudge?—The politics of libertarian paternalism*. Yale University Press.
- Sunstein, C. R. (2015). Nudges, agency, and abstraction. *Review of Philosophy and Psychology*, 6(3), 511–529.
- Sunstein, C. R. (2016). *The ethics of influence. Government in the age of behavioral science*. Cambridge University Press.
- Sunstein, C. R. (2019). *how change happens*. MIT Press.
- Sunstein, C. R., & Thaler, R. (2003). Libertarian paternalism is not an oxymoron. *University of Chicago Law Review*, 70(4), 1159–1202.

- Szaszi, B., Palinkas, A., Palfi, B., Szollosi, A., & Aczel, B. (2018). A systematic scoping review of the choice architecture movement: toward understanding when and why nudges work. *Journal of Behavioural Decision Making*, 31(3), 355–366.
- Thaler, R. (2015). *Misbehaving—The making of behavioral economics*. W. W. Norton & Company.
- Thaler, R., & Sunstein, C. (2008). *Nudge—Improving decisions about health, wealth, and happiness*. Yale University Press.
- Titmuss, R. M. (1970). *The gift relationship*. Allen and Unwin.
- Tullock, G., & Buchanan, J. M. (1962). *The calculus of consent*. Indianapolis: Liberty Fund.
- von Grundherr, M. (2016). Order ethics and situationist psychology. In C. Luetge & N. Mukerji (Eds.), *Order ethics: An ethical framework for the social market economy* (pp. 79–92). Dordrecht: Springer.
- Waldron, J. (2014). It's all for your own good. *The New York Review of Books*, October 9.
- Weinmann, M., Schneider, C., & Brocke, J. (2016). Digital nudging. *Business & Information Systems Engineering*, 58, 433–436. <https://doi.org/10.1007/s12599-016-0453-1>.
- Wilkinson, T. (2013). Nudging and manipulation. *Political Studies*, 61(2), 341–355.
- Willis, L. E. (2013). When nudges fail—Slippery defaults. *The University of Chicago Law Review*, 80, 1155–1229.
- Wong, S. (1978). *Foundations of Paul Samuelson's revealed preference theory*. London: Routledge and Kegan Paul.

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