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Policy-Led ‘Ecological’ Virtue-Cultivation: can we ‘nudge’ citizens towards developing virtues?

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**Should Aristotelians welcome nudges?
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I. Introduction

In recent years, policymakers have been interested in a set of new behaviour-modification techniques, now often known as ‘nudges’, which are grounded in and justified by reference of our new scientifically-based understanding of human psychology (Thaler and Sunstein, 2009). We now know, for instance, (i) that a significant part of our everyday behaviour and decision-making is automatic and context-dependent, the result of cognitive biases and environmental factors (Kahneman, 2012); and (ii) that this makes it possible to design policies that work ‘with the grain’ or with the ‘ecological rationality’ of these psychological processes, with the aim of promoting welfare by making alterations to the ‘choice architecture’ (Sunstein, 2014). The task for political theorists, in response to this shift in the logic of policymaking, is to examine what forms of nudging are morally permissible, and which are perhaps even morally required, within a liberal democratic state in light of this new understanding of the capacity to modify behaviour. We can call this ‘the permissibility question’. Much work has already been done in this regard (e.g., Bovens, 2009; Hausman and Welch, 2010; Goodwin, 2012).

This paper asks a different question: Should *Aristotelians* welcome nudges? One way of thinking about the permissibility question that has not received any attention before now, is to assess the potential interaction between this trend towards behavioural insights in policymaking and a recent trend in moral philosophy towards a renewed interest in virtue and the consequences of this for how we might think about moral education. On a broadly Aristotelian account of personal and political morality,² arguably the most plausible answer to the permissibility question is that nudge-style interventions into citizens’ behaviour would, in order to be permissible, need to be compatible with creating and sustaining the conditions for living well, which might be understood, more specifically, as the conditions conducive to developing virtues and leading virtuous lives. The welfare-promoting aim of nudges is, on this view, understood in terms of promoting one’s ability to live well by supporting the process of virtue-cultivation. Hence, the question of whether Aristotelians should welcome nudges depends on whether nudges are able to support this process of virtue-cultivation.

¹ This is an initial draft version of some ideas that I’ve been wanting to explore, but that do not necessarily form a part of my doctoral work. Comments are very welcome (F.R.Niker@warwick.ac.uk). I would like to thank my supervisors, Matthew Clayton and Adam Swift, for helping me to think through some of the issues covered in this paper, as well as Kimberley Brownlee for her helpful comments.

² The theory of personal and political morality that I favour is grounded in an integrated account of ethics (i.e., questions about how we lead good lives for ourselves) and morality (i.e., questions about how we ought to treat others): specifically, we need to specify our moral duties in a way that allows us to live well and to specify living well in a way that is sensitive to morality (cf. Dworkin, 2011).

This necessitates an examination of what might be called ‘the possibility question’: *Can* nudges lead to the development of virtues?³ There are a number of reasons for thinking that these new behaviour-modification techniques are not, and in fact could never be, relevant to the project of cultivating virtues (whatever you think of that project). For one, nudges tend to be understood as interventions designed to modify our automatic behavioural responses, promoting certain targeted ‘welfare-promoting’ behaviours irrespective of the motivation or intentionality of the citizens on whom they act.⁴ This focus on behaviour modification appears to be at odds with the focus on the development of character states – “at once modes of affect, choice, and perception” (Sherman, 1989: 5) – central to the project of virtue cultivation. Furthermore, nudge-style techniques make no claims about the potential for the conversion of behaviour into virtuous dispositions; hence, any expectation of such is simply a case of demanding more than they are able, or designed to deliver. These reasons appear to rule out nudging as a candidate for virtue-cultivation.

While remaining sensitive to these factors, this paper defends the view that it is possible for nudges to play a role in the policy-led development of virtues. By drawing a distinction between two different ways in which nudges might affect and shape our automatic responses to situations, it offers a more nuanced assessment of the possibility question that supports the claim that certain types of nudges (‘discernment-developing nudges’) have virtue-cultivating properties while others (‘automatic-behavioural nudges’) lack this potential. Hence, the paper contends that Aristotelians should welcome the former type of nudges for their ability to critically habituate citizens into better perceiving or discerning the particulars of a situation. It takes on the following form: Sections II and III briefly outline the potential means (nudge) and proposed end (virtue), respectively, of the process that interests us here; Section IV undermines any unitary response to the possibility question by distinguishing between two types of nudge mechanisms, according to their virtue-cultivating potential; and Section V explains in more detail the role that discernment-developing nudges can play in cultivating virtues, while remaining appropriately modest about the scope of this role. This paper adds to a growing number of recent contributions concerning the Aristotelian model of virtue-development, which share the ambition of making it “become psychologically more realistic and educationally useful” (Sanderse, 2015: 382).

II. Nudging: the potential means

Before assessing the question that concerns us, we first need to outline the relevant concepts in more detail. We might begin with the concept of ‘nudge’. In order to understand what a nudge is, it is necessary

³ This question might also be of interest to those who seek to justify the permissibility of nudging on different grounds, but who nevertheless might be interested in the kinds of ends that nudges are able to achieve, e.g., the cultivation of liberal virtues that are deemed necessary to ensuring the stability of liberal political institutions.

⁴ It is this aspect that has garnered so much of the political and normative attention given to nudging in recent years (cf. House of Lords, 2011; Wilkinson, 2012; White, 2013).

to understand the psychological evidence at the heart of the shift towards ‘behavioural insight’-led policymaking. This is because the nudge approach is grounded in, and is intended as a political response to, a particular empirical theory. The ‘dual-process’ theory of cognition, which now underpins much of modern psychology and neuroscience, maintains that the human brain functions in ways that invite a distinction between two kinds of thinking: the ‘fast’ or automatic thinking of System 1 and the ‘slow’ or reflective thinking of System 2 (Kahneman, 2012; Stanovich and West, 2000). Although described as fast *thinking*, System 1 does not involve processes that would typically be associated with this term: they are more akin to reflexes than to responses to conscious reasons. It is the more deliberate, self-conscious operations associated with System 2 that tend to be linked with the subjective experiences of agency and choice-making.⁵

The key finding of cognitive psychologists is that, contrary to this self-image, it is System 1 that has been shown to be “the secret author” of much of our behaviour (Kahneman, 2012: 13). This insight has spawned a large (and ever-growing) literature on the ‘ecological rationality’ or ‘automaticity’ of behaviour, which refers to, broadly speaking, “the control of our internal psychological processes by external stimuli and events in our immediate environment, often without our knowledge or awareness of such control” (e.g., cognitive biases and heuristics) (Bargh and Williams, 2006: 1).⁶ These System 1 processes can have certain advantages: (i) in some circumstances, they can act as quick and effortless ‘short-cuts’ to the behavioural responses that would have been selected via a slower, deliberative (System 2) process; and (ii) they can, in some circumstances, provide its reflective counterpart with accurate premises for informed reflection. Nonetheless, problems arise because the numerous cognitive biases and heuristics, along with the motivational shortfalls and social herding susceptibilities that have also been linked to the workings of this system, make System 1 prone to producing ‘systematic errors’ or ‘predictable irrationalities’ (Thaler and Sunstein, 2009; Ariely, 2009) under certain circumstances – and it seems that, in navigating our way around the constantly-changing, information-driven modern world, these circumstances or environments are more prevalent than we might have suspected. For instance, whether or not we have a work-based pension has been shown to be heavily dependent on what ‘default rule’ one’s employer adopts, in particular, whether the scheme is opt-in or opt-out. Also, whether or not someone decides to have an operation has been shown to be heavily dependent on the way in which the risk-factors are ‘framed’ by the medical practitioner.

The evidence concerning the workings of System 1 cognition shows that ‘ecological’ factors can significantly and consistently affect people’s behaviour. With respect to political theory and policymaking, the crucial insight to take from this evidence is that the state (as well as other actors) is inevitably involved

⁵ Kahneman maintains that: “when we think of ourselves, we identify with System 2, the conscious, reasoning self that has beliefs, makes choices, and decides what to think about and what to do” (2011: 51).

⁶ This cognitive-psychological evidence runs in parallel with evidence from social psychology concerning situationism.

in the business of structuring the ‘choice architecture’ (Thaler and Sunstein, 2009; Ben-Porath, 2010).⁷ Since the state cannot avoid influencing its citizens’ behaviour, and since there may be more and less welfare-promoting ways of designing public policies, it is important that the state thinks about how it structures its policy landscape.⁸ Using behavioural insights as a means of creating public policies that are more effective at modifying citizens’ behaviour in ‘welfare-promoting’ ways provides a kind of ‘third way’ between the coercive-regulative and educative strategies in the policymakers’ toolkit. Nudging is the most prominent example of this, with a nudge being defined by its creators as “any aspect of the choice architecture that alters people’s behaviour in a predictable way without forbidding any options or significantly changing their [...] incentives” (2009: 6). In a later formulation, Sunstein defines them as “initiatives that maintain freedom of choice while also steering people’s decisions in the right direction (as judged by people themselves)” (2014: 17).⁹ These definitions detail how nudging differs from coercion; but it is also the case that, although some nudges are “educative” (Sunstein, 2015), they are distinguished from more traditional education-based strategies that tend to work on the deliberative, rather than the automatic, level of thinking. The liberal’s longstanding belief in the effectiveness of education has, so the argument goes, been called into question by the empirical evidence, which replaces the assumption of rationality with an assumption of cognitive bias; and this fact makes the non-coercive paternalism of nudges a justified and effective alternative, in certain contexts at least.

Hence, the core claim is that choice architects should aim to make citizens’ automatic (System 1) responses to particular environments less harmful, via the intentional design of environmental stimuli, but should do so in a way that leaves people free to choose to opt-out of any such arrangement if they so desire. Thaler and Sunstein originally termed the philosophical basis for interventions of this kind ‘libertarian paternalism’.¹⁰ The potential reach of the nudge approach has, however, been extended beyond this exclusively-paternalistic formulation. For one, a number of the examples of nudges offered by Thaler and Sunstein in support of their original formulation – such as nudges around organ donation registration – are not paternalistic in so far as they are designed to benefit the welfare of third parties or

⁷ This ‘structuring’ sometimes occurs directly, via the intentional shaping the policy landscape, and sometimes indirectly, due to the social and economic arrangements the state permits through its laws. Furthermore, it is worth noting that, in these phrases, the term *choice* can be understood in either outcome-based or procedural terms: (i) choice as behavioural outcome (regardless of process) or (ii) choice as outcome of choosing process. The terms ‘landscape of choice’ and ‘choice architecture’ could, in principle, refer to either definition of ‘choice’; this introduces some conceptual and normative confusion. Because of the focus on the evidence of automaticity, though, I take it that Thaler and Sunstein (at least primarily) understand the term in the former sense. (More is said about this towards the end of Section IV.)

⁸ It is also important that the state responds to this evidence by accepting its role in the regulation of other actors’ (e.g., corporate actors’) ‘policy’ designs, such as regulations on marketing techniques.

⁹ Much discussion has been had about exactly what does and what does not count as a nudge. Here, I follow Moles (2015) in not being too optimistic about the usefulness of working out a satisfactory definition of nudge, and this supports a policy of stepping back from the discussions concerning the semantics of nudge and focusing more on the substantive issues at hand.

¹⁰ As implied by this term, nudges are supposed to be paternalistic (“a relatively weak, soft, and nonintrusive type of paternalism”): their goal, according to the original formulation in *Nudge*, is to influence people’s behaviour in ways that improve their own welfare, i.e., that make citizens “better off, *as judged by themselves*” (2009: 5).

social welfare more generally (rather than the welfare of the ‘nudgee’ specifically).¹¹ Also, Sunstein’s more recent work – for instance, his work on nudging towards pro-environmental behaviour (Reisch and Sunstein, 2014; Hedlin and Sunstein, 2015) – focuses wholly on these ‘social nudges’, where the line between what is and is not paternalistically-motivated (and justified) cannot be clearly delineated. This is not morally problematic: there are two main kinds of (non-mutually-exclusive) reasons for why the state might want to modify citizens’ behaviour – the first being prudential, that is, to improve their own lives; and the second being moral, that is, to improve the lives of others within the community. Nudging can, in principle, be used for both ends.

For our purposes, a working definition of nudging as a set of policy-led behaviour-modification techniques that are (i) non-coercive, (ii) psychologically-informed, and (iii) welfare-promoting, and which always aim to affect automatic modes of thinking, is sufficient for moving ahead with our present inquiry.

III. Virtue: the proposed end

The other concept that needs outlining in more detail is ‘virtue’. As mentioned above, there has been a renewed interest in the role of virtue within moral philosophy in recent decades. This was precipitated by an unease about a perceived weakness shared by outcome- and duty-based approaches, namely, that they focus too much on what *to do* at the expense of considering what sort of person *to be* (e.g., Anscombe, 1958). Those interested in the roles that might be played by moral sensitivity, motivation, and character in right action tend to find Aristotle’s account of virtuous living a fertile starting-point for their accounts. Interestingly, Aristotle’s account of human psychology and cognition (which forms the basis for his account of virtue) is bipartite too, in a manner that parallels the modern-day scientific theory outlined above. It posits an ‘alogical’ or non-rational part (*to alogon echon*), concerned with perceptive and affective response, and a ‘logical’ or rational part (*to logon echon*), concerned with reasoned reflection.¹² Both parts are understood as cognitive elements, as in the dual-process theory of cognition. For Aristotle, this means that both are potential sites of human excellence or *virtue*: in simple terms, the alogical part is the site of the virtues of character and the logical part is the site of the intellectual virtues (Fortenbaugh, 1975). We are primarily interested in virtues of character; the process of developing these virtues, though, cannot be separated from practical reason. We need to know more about virtue in order for this to become clearer.

According to Aristotle, ethical virtue is a dispositional characteristic, a habit (*hexis*) concerning actions and reactions (*pathe*) involving choice (*NE* 1106b36-39). Virtue cannot be attained through right action alone:

¹¹ Changing the default rule from opt-in to opt-out (as in Wales), or from an opt-in default to ‘forced choosing’ (as in the rest of the UK), is a nudge designed primarily to increase the supply of available organs and therefore to save the lives of third parties requiring transplants; it is not clear that it has any benefit to potential donors.

¹² The argument of the paper does not require or rest on this similarity; though it is very interesting to note the apparent parallels between Aristotle’s account of psychology and the dual-process theory of cognition. Others have argued that modern neuroscience vindicates Aristotelian ethics (e.g., Thiele, 2013).

to act rightly is to act rightly in both affect and conduct, thereby requiring a certain level of perceptive and affective engagement as part of the practical reasoning process (Sherman, 1989). Virtuous behaviour is produced “according to the right reason” (*kata ton orthon logon*) (NE 1138b24), and this follows from a process of ‘discernment’ that means that it (i.e., the motivating reason) is felt “at the right times, with reference to the right objects, towards the right people, with the right motive, and in the right way” (NE 1106b20-22). Accordingly, virtues are context-specific: the virtue of courage, for instance, consists in the right mix of caution and boldness, with this ‘golden mean’ being different in different situations (NE 1116a10-15). It is practical wisdom (*phronēsis*) that determines where the mean lies in each specific context. Practical wisdom is, therefore, crucial to Aristotle’s account because it is the virtue needed to manage the other virtues, by discerning or judging which are required by a specific situation and in which proportions. In other words, virtue in the strict sense does not arise without practical wisdom (1144b16-17). There is also “a humbler condition” that Aristotle does not hesitate to label virtue as well (*Pol.* 1340a15; *Rhet.* 1389a35; *NE* 1103a24): it is an *ēthos* (that is, a character state) acquired via the process of habituation, which is a prerequisite for the subsequent conversion into a full (or, at least, more global) virtue (Fortenbaugh, 1975: 51-2).

Of particular interest, then, in assessing the question of “how and by what sources does virtue arise?” (*EE* 1216b10-22), is the process by which we are to discern the particulars – or the ethically and morally salient features – of a situation that we take to be relevant to our choice-making.¹³ The perceptive and affective responses of the alogical part (something akin to the automatic responses of System 1 thinking) are simply parts of expressing virtue, since “character is expressed in what one *sees* as much as what one *does*” and “our emotions affect how and what we see” (Sherman, 1989: 3-4, 49).¹⁴ Hence, ‘how to see’ becomes as much a matter of inquiry (*zētēsis*) with respect to virtue cultivation as what to do (*NE* 1112b22, 1142a35-b2), with this significant role for the perceptive aspect of practical reason being stated most clearly by Aristotle at the end of *NE* II: “But up to what point and to what extent a man must deviate before he becomes blameworthy it is not easy to determine by reasoning [...]; such things depend on particular facts, and the decision rests with perception” (*NE* 1109b18-23; repeated nearly verbatim at 1126b2-4). Giving priority to the particular in this way arguably weakens the role that principles and rules can play regarding what one ought to do and, instead, stresses the importance of experience in giving content to practical wisdom (Nussbaum, 1990). It is experience that develops the faculty of practical

¹³ This is one important aspect of virtue. There are other aspects of practical wisdom that are also necessary for full virtue, in particular choice-making and collaboration (cf. Sherman, 1989, chapters 3 and 4). But the focus here is on moral perception and the role played by emotions in this process. It is arguably the most interesting aspect with respect to the question at hand, concerning the potential for virtue-cultivating nudges; but it had also been, until recently at least, quite overlooked in the literature. Yet, as Sherman highlights convincingly, accounts of Aristotle’s theory of practical reason that start at the practical syllogism (i.e., deciding how to act in light of some end) is “misleading” because the process of deciding how to act starts “further back with a perception of the circumstances and a recognition of its morally salient features” (1989: 5). *Contra* Kantian (or duty-based) theories, this reaction is itself part of the virtuous response.

¹⁴ The *phronimos*, for instance, not only avoids discriminating against people of other races; she perceives the reason for not acting in this way because she *feels* the wrongness of race-based discrimination.

perception, since it is this that ‘gives us eyes to see correctly’ (cf. *NE* 1143b10-14). It is for this reason that Aristotle’s account of virtue is concerned with educating the cognitive and affective sides of perceptive response through habituation.

IV. Two nudge mechanisms: ‘automatic-behavioural’ and ‘discernment-developing’

But can nudging have any role to play in this process? At first sight, it would appear not. The main problem, as touched upon in the introduction, is that nudges are behaviour-focused: they ‘steer people’s behaviour [or ‘decisions’] in the right direction’ by exploiting cognitive biases. We know, for instance, they people tend to have a status-quo bias (often on account of inertia or procrastination), and so we can use this to create default rules that steer people’s behaviour in the right direction, such as when we change the printing default from single-sided to double-sided (as was the case at Rutgers University¹⁵), or the work-based pension scheme from opt-in to automatic enrolment.¹⁶ These types of nudges that exploit System 1 thinking for ‘welfare’ gains do not provide an opportunity for virtue cultivation because they seek to generate the ‘right behaviour’ apart from (or, at the least, regardless of) the corresponding right motivation. More than this, in such interventions the choice architect usurps the practical reasoning process; they assume the perceptive and deliberative tasks, and then present the choice environment in a way that is conducive to the automatic System 1 response being in line with what they consider to be the right behaviour (while leaving the possibility, in formal terms at least, of opting-out of acting in this way). The ethically and morally salient features of a certain situation have been ‘discerned’, as it were, ahead of time by the policymaker, who has then designed the policy according to relevant behavioural insights that specify how the target behaviour can be predictably achieved.

Essentially, in decreasing the sizes of plates (or soda-cups) in order to reduce people’s calorie (or sugar) intake, the choice architect is hoping that the resulting behaviour parallels what would have been the case if customers had acted out of the virtue of temperance. Similarly, in using visual illusions in traffic control measures (i.e., narrowing the side-lines on a road in order to produce something akin to an optical illusion that results in driver’s automatically reducing their speed), policymakers are seeking to replicate in the road-users the driving behaviour of those who display the virtue of prudence. The problem is that this behaviour is ecologically-dependent: the policy modifies our (automatic) behaviour when we are in the certain environments to which the policy applies; but it does not outlast this because it does not modify (how we see) the *reasons* for behaviour.¹⁷ That is, it alters the way we automatically respond to the situation at hand, but not in a manner that requires or develops the exercise of perceptive, affective, and

¹⁵ Rutgers University changed its default rule from single-sided to double-sided printing and the university’s paper consumption fell by 44 percent (cf. Egebark and Ekstrom, 2013).

¹⁶ There are many other biases and heuristics that can be employed to steer people’s behaviour in a similar way: for example, framing effects, anchoring, and priming.

¹⁷ Note that the problem is not that this behaviour is not “sticky”, as economists would say. The issue that is being highlighted here would still remain, even if the behaviour were sticky in this way.

deliberative aspects of practical reason that are characteristic of virtuous action. Accordingly, these *automatic-behavioural nudges*, as we might collectively call them, are ruled out as candidates for policy-led virtue cultivation.

Nonetheless virtue, and its cultivation, has an interestingly complex relationship with automaticity. Although Aristotelian moral psychology specifies that virtue requires a particular link between motivation and action, which is not met in the case of automatic-behavioural nudges, Aristotle also claims that virtues entail (automatic) perceptive and affective responses to the salient situational factors and that virtuous dispositions to see, feel, and act in particular ways need to be habituated over time and through practice so that they become second-nature, i.e., stable dispositional responses that are automatically triggered in the relevant situations. Some nudges could have a role to play in educating these processes by altering how a person *sees* a situation – perhaps by making relevant reasons more salient, so that they are more easily perceived, or by helping to obscure some distracting features of the situation, thereby ‘hindering any hindrances’ to perceiving the relevant features of the situation (Connelly, 2014).¹⁸

For instance, the traffic-light system for displaying the nutritional information of food items is designed to positively alter the way in which we consume by highlighting salient health information via a means that can be easily noticed and interpreted as we are rushing around the supermarket. This works by engaging our System 1 thinking: the colour red elicits a feeling of danger and conjures up the mental picture of a red traffic light, thereby denoting the message ‘stop’; while green has the opposite effect, signalling ‘go’ and including an impression of health. System 2 is therefore able to make a more informed choice, in light of the information that System 1 has highlighted as salient to this consumer decision (i.e., there is a health-based reason to buy this over that, due to the relative nutritional value of the former, and this can be weighed against other reasons that pertain, such as cost-based reasons). The idea is that, over time, this learning process would result in the formation of healthy-eating habits that, ideally, are not reliant on institutional support of this kind. This type of informative nudge might be considered an example of educating the cognitive side of perceptive response through habituation.¹⁹

Another way of altering how a person sees a situation relates to the affective side of perceptive response. On the Aristotelian account it is assumed that emotional responses are ways of perceiving or being sensitive to particular circumstances, which makes them an indispensable part of recognizing the ethically and morally salient features of a situation. So-called ‘active choosing’ (either prompted choice or forced choosing) nudges might offer a good candidate, in certain circumstances, for bringing this affective perception into play when it might otherwise have not been active. For instance, prompted choice

¹⁸ In some instances, these two kinds of ‘ecological engineering’ (Levy, 2012) might amount to the same thing.

¹⁹ The ‘Ambient Orb’ is another example of this type of nudge mechanism. The Orb is a “little ball that glows red when a customer is using lots of energy but green when energy use is modest” (Thaler and Sunstein, 2009: 206). By making energy use visible in a way that captures the attention of our System 1 thinking, the Orb has been shown to reduce customers’ peak-period energy use by 40%.

policies for organ donation registration or forced choosing policies for energy programs might be effective at changing people's behaviour because the simple act of asking people to choose might "trigger [the recognition of] otherwise dormant or ineffective moral values and social norms" by triggering particular emotions (Hedlin and Sunstein, 2015).

In a recent study, Hedlin and Sunstein (2015) tested experimentally how active choosing policies fare in terms of their effectiveness at bringing about pro-environmental behaviour, as compared with opt-out green energy defaults (i.e., automatic enrolment in green energy). They report: (i) that active choosing led to higher enrolment in the pro-environmental behaviour, (ii) that active choosing caused participants to feel more guilty about not enrolling in the green energy program; and (iii) that the level of guilt was positively related to the probability of enrolling. One might interpret these results as demonstrating that active choosing nudges put people in an environment in which the affective side of their perceptive response plays a significant role in modifying people's behaviour. On an Aristotelian interpretation, the emotions experienced – in this case, anticipated guilt – lead people to recognize and care about the objects of ethical consideration (i.e., activating their latent environmental concerns); this in turn leads them to form evaluative beliefs about how they should act; and these beliefs "yield *reasons* for action which fall within the motivational structure of specific virtues" (Sherman, 1989: 31; italics added). This type of nudge mechanism, therefore, might be considered an example of developing the affective side of perceptive response through habituation.

Together, the nudges that could work to develop the cognitive and affective sides of perceptive response, in order to better discern the aspects of a situation that are relevant to choice-making, offer a category that we might call *discernment-developing nudges*. What unites these types of nudge policies is that, despite being behaviour-focused, they focus on behaviour modification via active, rather than passive processes in the nudgee. It is this that distinguishes them from the category of automatic-behavioural nudges. Recall that virtue is a hexis concerned with choice. The active/ passive distinction parallels an important distinction which respect to our understanding of the term 'choice': on the one hand, it is common to regard a choice as the particular behaviour, among the set of behaviour-options available to her, that the agent in fact undertakes, regardless of the process by which this came about; on the other hand, a choice is also commonly used to refer to the behavioural outcome that follows from the *process* of the agent making a choice or choosing, which, in the case of virtue, requires perceptive and affective engagement to discern the particulars relevant to this practical-reasoning process. Automatic-behavioural nudge can improve choices only the first sense; the situational improvements produce certain behaviours in individuals via a process that they are only passively engaged in. Conversely, discernment-developing nudges aim to improve choices and choice-making in the second sense, by using choice architecture to create the conditions that allow people to be actively involved in the process of choosing how (or whether) to modify their behaviour in light of the salient reasons as they relate to them. This active

dimension is crucial in making the case in favour of the virtue-cultivating potential of these types of nudges, which is the focus of the next section.

V. Virtue-cultivating nudges

Distinguishing between different types of nudges in this way supports the account of “critical habituation” that Nancy Sherman argues for, *contra* a mechanical theory of habituation, in *The Fabric of Character* (1989, especially Chapter 5). On this view, Aristotle’s statement that “we become just by doing just actions, and temperate by doing temperate actions and brave by brave actions” (*NE* 1103a1-2) is an abbreviation of a series of stages that he takes to be required for the habituation of character, since:

“...action presupposes the discrimination of a situation as requiring a response, reactive emotions that mark that response, and desires and beliefs about how and for the sake of what ends one should act. We misconstrue Aristotle’s notion of action producing character if we isolate the exterior moment of action from the interior cognitive and affective moments which characterize even the beginner’s ethical behaviour.” (Sherman, 1989: 178)

If we accept this to be so, then we do not become just (or temperate, or brave, etc.) *merely* by doing just actions: if we perform just actions simply because we have been nudged unthinkingly (psychologically manipulated) into doing them, this does not make us more just as people. It is for this reason that automatic-behavioural nudges fail to have the virtue-cultivating potential that is available to discernment-developing nudges: the latter work by habituating citizens into right perception and feeling, not just right action. But more needs to be said on how exactly discernment-developing nudges can help in the process of cultivating virtue. This is because a sceptic might ask: how does recognizing, via the emotion of guilt, the reasons to choose the green energy program over the normal non-green energy program help to cultivate pro-environmental virtue? And how, if at all, does this make it more likely that people will display pro-environmental virtue(s) in different choice contexts, such as recycling or transport choices?

These questions get to the heart of an issue that has been exercising those interested in an Aristotelian theory of character education. Much attention has recently been directed towards specifying the often-overlooked developmental stages of this theory (Sanderse, 2015). Part of this requires addressing the potential situation-specificity of the virtuous actions that result from discernment-developing nudges; for, even if these kinds of nudges can direct people towards (actively) acting rightly, there is a certain modularity to this behavioural learning that makes any resultant virtue only a “local virtue” (Chen, 2015; cf. Adams, 2006). The ecological support offered by discernment-developing nudges, so the sceptic might contend, can only help people to become locally virtuous, to do the right thing in the right way in a specific situation, without having the disposition (practical wisdom) to act rightly in other situations in which that same virtue would be appropriate. But the way in which we have distinguished between the

different nudge mechanisms offers one type of response to the sceptic, because it naturally situates the role that nudging could play in virtue-cultivation within a developmental account of cognitive and affective capacities. Discernment-developing nudges aim to cultivate the specific virtues primarily through supporting the conditions for the cultivation of the general virtue of practical wisdom. Practical wisdom, you will recall, is the virtue needed to manage the other virtues, since it is which discerns and judges what virtues are required by a specific situation and in which proportions. If nudges are able to develop this virtue, then this offers a means of converting local traits into more global traits, by enabling people to better perceive that “*this is a that*”, that is, that the current situation (e.g., concerning recycling) is an instance that demands a similar response to a previous situation (e.g., concerning energy programs) (Sherman, 1989: 41). Chen puts it this way: “Through the gradual process of [character] habituation, the agent comes to recognize, and respond to, the same demands issued by apparently different situations [...] and trigger his internal mechanism to dispose him to behave in the same way” (2015: 410; cf. Miller, 2003).

Of course, discernment-developing nudges will only play a limited role in this process over the course of a person’s lifetime. For Aristotle, there are two main institutions involved in the development of virtues: the family and the state (*NE* 1142a9-11).²⁰ Nudges represent only a part of the state’s policy toolkit; others have written about the potential role of the law in cultivating virtues (Brownlee, 2015), and others still have focused on the role of the state in school-based character education. But as part of this wider state approach and in the particular contexts in which this approach is favourable vis-à-vis alternatives, discernment-developing nudges can support the process of critical habituation of character. The psychological evidence on which they are based, rather than showing that we are ‘irrational’, supports Aristotle’s claim that “[o]ne’s own good cannot exist [...] without a form of government” (*NE* 1142a9-10). This claim follows from the collaborative nature of his account of practical wisdom: among other things, the practical wisdom of individual citizens comprises, to some extent, the ‘political wisdom’ of the state (*NE* 1141b23; Sherman, 1989). And this acknowledgment has “obvious implications for the resources available for ethical perception and choice” and its policy-led development: in particular, this collaborative model allows that the experience and expertise required for virtuous action can be (actively) “borrowed exogenously” from others (Sherman, 1989: 54; cf. *NE* 1143b13). This ‘borrowing’ is a significant part of the critical habituation process. It supports the idea that there might be a “public ecology” of virtue, based on an ecological or situated conception of rationality (cf. Hurley, 2011 on the public ecology of responsibility); and that “structures of virtue” might, therefore, be incorporated to some degree into the design of public policy frameworks (cf. Rozier, 2015 on this idea within public health ethics).

²⁰ Much work in character education has been, quite rightly, devoted to the family- and school-based education of the young. Nonetheless the policy-led virtue cultivation in (adult) citizens that interests us here is clearly supported by Aristotle’s claim that habituation is an indispensable part of learning at all ages: “they must, even when they are grown up, practice and be habituated to [virtue]” (*NE* 1180a2-3).

Discernment-developing nudges are one means by which the state could critically habituate character in this way. As highlighted by the examples given in the previous section, this ecological-critical habituation has two interrelated dimensions: the cognitive and affective sides of ethical perception, the shaping of our propensities to think and feel, and therefore to act, in ways that better promote our (individual and social) welfare. The first dimension habituates cognitive processes relating to our ability to perceive the reasons that apply to us in particular situations. By presenting information in particular ways, the state can guide people towards being more aware of and sensitive to the salient aspects of the situation, as in the case of the traffic-light system for nutritional content. The second dimension relates to emotion education: the process of affective sensitization plays a decisive role in the gradual consolidation of moral character – and the situational modification used by discernment-developing nudges can constitute an important facet of such a sensitization process. As Sherman states, “one can believe that sentiments have to be guided, made less blind, habituated as reliable dispositions, without claiming that this thereby invalidates their role in ethical perception” (1989: 47). Aristotle understands affective responses as cognitive phenomena that are open to reason (*NE* 1102b14, 1102b26–1103a3; cf. Sherman, 1989: 162-3); the process of cultivating the dispositional capacities to feel emotions such as guilt, compassion, fear, etc. appropriately is bound up with learning how to discern the particulars of situation that warrant these affective responses (Sherman, 1989: 167).

In this way, we can respond adequately to the sceptic, while at the same time retaining a level of modesty concerning the limitations of virtue-cultivating nudges. Certainly, the virtues cultivated by discernment-developing nudges will fail to meet the conditions necessary for full virtue. But this does not undermine their virtue-cultivation potential: for, it is part of having virtue to be able to perceive, and affectively respond to, the circumstances necessary for the specific virtues; and it is precisely this that discernment-developing nudges seek to help to cultivate.

VI. Conclusion

At first sight, nudging would seem to be ruled out as a candidate for cultivating virtues. This paper has provided a more nuanced answer to ‘the possibility question’, arguing that certain types of nudges have virtue-cultivating properties. It has distinguished between two groups of nudge-based behaviour-modification interventions: automatic-behavioural and discernment-developing nudges. All nudges engage our automatic responses in some way in seeking to modify our behaviour; but what divides the two is that the latter group creates the conditions for living well, on account of their playing an ecological-educative role in developing people’s practical wisdom in both the prudential and moral domains. Consequently, the paper has shown that Aristotelian should welcome these discernment-developing nudges and should look to build these into their model of character development.

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