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The challenges and opportunities of ‘nudging’¹

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Abstract

This article discusses libertarian paternalism, the philosophical stance of a behavioural economics inspired policy intervention in the health domain.

Based on the very foundations of behavioural economics, we make two claims: on the one hand, interventions on choice architectures are not neutral because every policy measure includes an interpersonal comparison of preferences; on the other hand, ‘nudging’ should not be understood as an escape from addressing structural intervention (e.g. interventions on socio economic determinants of health), as the main tenet of behavioural economics is that preferences are context dependent and as such influenced by socio-economic background.

Introduction

Consider the following selective evidence of human behaviour in the domain of health care. The numeric-cognition feeds typically provided during public vaccination campaigns are less effective than affect-based perception of risk [1]. It is common to avoid seeing doctors and/or doing health checks because of anxiety and fear of receiving bad results. The latter means that a perceived ‘loss today’ in the health status has a stronger impact than a ‘gain tomorrow’, namely preventing or curing a potential disease [2]. Clinicians fail to act on available knowledge and guidelines despite the intention to do so [3].

Instead, consider now the following couple of examples of choice architectures capable of offsetting erroneous conducts. Recent trial studies show that it is enough to change the default settings of electronic order sets to dramatically ‘improve’ clinicians prescribing behaviours [4]. A lottery based financial incentive increased warfarin adherence and anticoagulation control [5].

What do these examples have in common? They exemplify the heuristics and biases and the counteracting ‘nudges’ that in the past decade have been presented as part of a behavioural sciences dictated policy agenda. Altering prescription activities by changing defaults in electronic order sets, for instance, is just a very simple example of a ‘nudge’ leveraging the ‘status quo bias’ to steer clinicians toward a ‘normatively’ defined ‘better’ behaviour. This is achieved by framing the choice set without restricting available options, in other words acting over presentation of the decision problem and not on the constraints for the decision maker. This philosophy of policy intervention has been labelled “libertarian paternalism” because by not affecting the options available in the choice set it can be deemed to be libertarian from a consequentialist point of view, while being paternalistic in the sense of trying to induce ‘better’ choices [6].

The approach is grounded in behavioural economics (BE hereafter), the discipline that is merging cognitive and social psychology with (micro-) economics, i.e. choice theory. Libertarian paternalism has been criticized with opposing arguments. On the one hand, purist neoclassical economists object the paternalistic account, suggesting that it ultimately accounts for increasing regulation and masks a continuous interference with the right to choose. On the opposite side, a Foucaultian critique is raised, suggesting

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that the Nudge approach to policy intervention maintains and extends new forms of Neoliberal governmentality [7], namely the “production” by government of a certain typology of behaviour. It is a matter of fact that the use of nudges poses a series of specific ethical questions. Once we enter into the practical implementation of a nudge, the boundary between the choice architecture and the social engineering becomes fuzzy. Elements such as potential deception pose further ethical problems [8]. Moreover, it is not clear how nudge can be clearly constrained in order to preserve autonomy and prevent manipulation [9], a key object of critiques to both bio-politics and paternalism.

In this editorial, a BE approach in the context of health is discussed critically, focussing on elements of its theoretical foundation and determinants to health access.

Nudging and health

The application of nudging in health-related research has been proposed in disparate areas ranging from weight loss, adherence [10,11], managing chronic diseases [12], improving maternal and child health [13], preventing mother-to-child transmission [14], promoting Long-Acting Reversible Contraceptive (LARC) Methods [15], devising new approaches to HIV prevention [16], and many others.

Besides technical discussions on the extent of effectiveness (short run versus long run, external and ecological validity of the trials conducted in social sciences), critique on the application of the nudge approach to health can be divided into two broad groups: a) critique addressing the underlying ethical and philosophical principles of nudge; b) critique considering the socio-political and distributive justice implications deriving from a full adoption of this approach in public health and healthcare.

In a nutshell, the two pillars of libertarian paternalism deal with: a) the potential to formulate a person’s best interest; and b) the lack of a neutral choice set (if choices are not architected by policy they are by others). The first point is the most challenged both ethically and politically and concerns question such ‘who controls the nudgers’ and ‘best interest according to whom?’. As argued by Vallgarda [17], the answer to the question if nudging is an ethically acceptable way of governing people’s behaviour depends on the ethical principles one adheres to. Our core point is that there is no magic trick, any form of policy intervention will impose a criterion against someone’s will and democracy requires: a) transparency from the political system in terms of the values selected in deciding and designing an intervention; b) and at least an evidence based justification of choice. Overt and explicit coercion by ‘nudgers’ is arguably better than covert manipulation by those designing environmental and contextual cues. The lack of a normative criterion abstaining from interpersonal comparison is a clear-cut implication of moving from rational choice to behavioural approaches: the former is grounded on assumptions of exogenous well-defined preferences, which allow defining a normative criterion without introducing interpersonal comparison, but if we accept the evidence (from cognitive psychology) that preferences are context dependent [18], we cannot have a stable criterion for normative statement which preserves individual autonomy. In other words, if the preferences of an individual change, then we cannot state that his first choice is better/equal/worse than his second one without introducing a ranking among his preference systems. As a result, value free interventions cannot be defined.

Second, if no magic bullet is available on the policy side, the same applies to research. In the domain of health, behavioural approaches must cope with the challenge of not neglecting the socio-economic and contextual determinant of health inequalities and, thus, rejecting the claim of those arguing that nudges in health are mere cosmetic interventions that avoid addressing the big societal challenges [19]. The evidence on

the relation between health and various socio-economic determinants such as income, education, and class is overwhelming [20-23]. This traditional body of literature suggests that neglecting social stratification will eventually determine poor results of the interventions. Again, we claim that taking BE seriously means facing the challenge of socio-economic determinants of decision-making, since the latter are a main element of the context, which determines preferences and choices by individuals. This should be taken into account in designing nudges. Here we identify a main issue: the difference between using nudges as complementary intervention to those aimed at socio-economic determinants of health and the use of the latter in the design of behavioural measures. In other words, nudges might need to be 'socio-economically situated' [24].

Sociological critiques to the cognitivist/behavioural turn, while recognising the value of the critique to the rationalism and cognitive individualism (i.e. the solitary agent thinking and appraising utility as if he was like Robinson Crusoe) of standard economics, hold that it still searches for the micro-foundations of a 'universal nature' and that it is inspired by a cognitive universalism neglecting synchronic and diachronic social and cultural differences [25]. The sociological gaze reminds us that we also think and cognitively process stimuli as members of particular communities. Cognitive schemas are grounded in culturally, historically, and sub-culturally specific traditions (e.g. the domain of research of cultural psychology). Observing that our actions can be deliberate or automatic, 'hot' or 'cold', representing different strategies (or lack thereof) and having different effects is not sufficient and beckons the social, cultural, and historical conditions that either enable or constrain individual actors or groups of similar actors from switching their action strategies today or across time [26].

We can apply such considerations to the nudges aimed at dissuading smoking that have been object of our recent study for the European Commission [27]. Findings suggests that gruesome pictorial warning, a quintessential example of a nudge based on salience and affect, are more effective than textual warning in eliciting strong emotion that translate in higher intention to quit and less willingness to buy cigarettes. The obvious objection might be that this is a proximal outcome and it is not a predictor of more distant outcomes such as smoking cessation and reduction of prevalence. Although this area has been object of a large array of interventions, the policy evaluation of combined warnings introduction based on quasi-experimental techniques shows that the impact is large in magnitude and statistically significant [28-29]. Moreover, let us look back a century ago and see that a very small percentage of women smoked at the turn of the twentieth century, whereas today, after decades of marketing campaigns targeting them (e.g. 'modern and emancipated women smoke'), womens' smoking prevalence increased significantly [30]. The cognition and action of women with respect to the 'smoking temptation', thus, has not remained constant across the past century. Whereas the heuristics and bias potentially already existed, they remained dormant until they were activated by a changed social context due also to cues opportunely crafted by the tobacco industry. By the same token, the context in general has changed, given the dramatic decrease in prevalence in the past thirty years and the launch of pictorial warnings – nudges - which aim, not simply at a short term impact through salience and affect, but also at long terms changes in social norms and behaviours. As becomes clear, all of this can neither be explained nor realised on the basis of governing population on simple nudges targeting individuated persons assuming cognitive universalism only.

Final Remarks

There is an accusation against libertarian paternalism of proposing experiment-based evidence as a way to mask normatively defined intervention. The latter ethical-political

critique to nudging is misplaced, or better it is not specific to nudges since it could apply to any old or new approach to policy making and to the use of evidence for that purpose. There is no such thing as value-free policy and there is no source of evidence that can remove politics from policy. Politically neutral and technically determined 'evidence based policy' does not and cannot exist. The application of behavioural insights into policy should simply be welcomed as another instrument in support of an *empirical* approach to policy. It can help improve policies but is no self-absolving trick. As proposed by Fischhoff et al. [31], a transparent and sound use of behavioural evidence in policy making should foresee three steps: a) normative analysis identifying the 'best' choices; b) descriptive analysis using experimental evidence to predict the choices that would be made under different policy treatments; and c) prescriptive analysis quantifying the gap between the normative objective and the empirical reality.

In addition, we have taken seriously the more socio-political critique that public health focussed on narrow conception of nudge can become a smokescreen for government reluctance or incapacity to tackle upstream structural determinants of health inequalities. We argue that neglecting socio economic variables would be clearly a mistake also in the design of nudge. However, our point is precisely that behavioural science (and nudge as its policy implication) can incorporate an analysis of social and cultural factors and avoid cognitive universalism as to build a sound methodological basis for the behavioural research on health. We argue that the right spirit of behavioural research and subsequently of behaviourally informed policy is precisely to accept the challenge of introducing the socio economic dimension into an empirically grounded theory of behaviour, in order to propose effective policy interventions.

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