Original Article

The birth of mindpolitics: understanding nudging in public health policy

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Abstract This article addresses the question: 'In what ways have nudging and other behavioural techniques entered the realm of policymaking for public health and what does that mean for the way contemporary society is governed?' In our genealogy of Dutch public health policy, we have identified four periods: 'rational persuasion/individual responsibility' ('70s), 'welfarist emancipation' ('80s), 'neo-liberal regulation' ('90s), and 'management of choice' (now). We show how a different type of technique, which we call 'mindpolitics', has slowly complemented the biopolitics of public hygiene and health care. We argue that to think in terms of biopolitics today means to think of its relation to a world in which public health is managed through architecture of choice and the way individuals are nudged into making better decisions.
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Introduction

7AM:
Edwin wakes up. He receives a message on his cell phone through social media about two boys from the local football club's first team who will be giving a clinic in the neighbourhood.

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7:30AM:
Ever since 'breakfast week' at school, Edwin's mother has bought wholemeal bread during weekdays. The bakery, which also participated in the 'breakfast week', has plenty of wholemeal bread on offer.

8AM:
Edwin cycles to school with a friend in the new cycle path along a busy road.

12PM:
The teacher distributes fruit cocktails for lunch.

2PM:
During math class, Edwin calculates how many minutes he has to run in order to burn off a hamburger.

4PM:
Edwin participates in the football clinic in the local square. He wants to be just as good as the boys from the first team!

The previous text is not from a kid's diary, but a quote from a recent Dutch public health initiative.[1] It may be a form of wishful thinking by policymakers, but it also says a lot about the effects they aim to achieve. Whether Edwin is aware of it or not, his behaviour is constantly being monitored and influenced by external triggers. The motto of the aforementioned public health initiative summarises the intervention technique: "Redesign youth's environment. Make healthy choices normal again!"[2]

There are many other examples of public and private efforts to influence the choices we make regarding our behaviour and our health (e.g., Peeters, 2013). School canteens are designed in such a way that students are inclined to choose healthy over unhealthy food. Healthy products are presented at eye level in supermarket shelves. Age coins introduce an extra barrier for people to buy cigarettes in bars. Public campaigns present smoking and alcohol use by adolescents as socially 'not done'. Smartphone apps allow you to monitor your behaviour from day to day. And social marketing is used to 'sell' a healthy lifestyle.

In this article, we develop a theoretical understanding of the emergence of these and similar activities and interventions in the contemporary governance of public health. We will use Richard Thaler's and Cass Sunstein's concept of 'nudge' as a starting point, because this captures many of the essential mechanisms at play in the type of interventions we aim to understand. Nudge is a technique 'to influence people's behaviour in order to make their lives longer, healthier, and better' (2009, p. 5, cf. Sunstein, 2014). However, what is missing from Thaler's and Sunstein's instrumental approach is an empirical analysis of how these behavioural techniques are used by governments. Our central

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question, therefore, is as follows: 'In what ways have nudging and other behavioural techniques entered the realm of policymaking for public health and what does that mean for the way contemporary society is governed?'

The article begins by outlining the technique of nudging: What are its proposed mechanisms for behavioural change? We then go on to analyse the gradual transformation of the governance of public health from a physical and medical paradigm towards a psychological and behavioural paradigm. In our analysis, we suggest that this transition indicates a further development of what Foucault called 'biopolitics', or the governing of populations by using disciplining and regulatory techniques (1976a, b, 2008, 2009). Although biopolitics has become a buzzword for all kinds of technologies and practices to improve the public health, we argue that biopolitics nowadays deals increasingly with the psychological triggers underlying human behaviour and choice. What we are seeing in the rise of nudging and other behavioural techniques is a transformation from 'traditional' biopolitics to what we call 'mindpolitics'. We therefore argue that nudging is the expression of a logical development in the way contemporary liberal societies are managed: not through discipline or limitation of freedom (as was more common in nineteenth- and early twentieth-century mass societies), but by using an essential premise of liberalism – the freedom of choice – as a technique for government. Its objective is not to impose external control, but to trigger internal self-control.

Understanding Nudging

From a theoretical perspective, most – but not all – of the aforementioned public health activities can be labelled as 'nudging'. This concept has gained widespread recognition through the work of behavioural economist Richard Thaler and law scholar Cass Sunstein (2009; see also Sunstein, 2014), who have coined the seemingly oxymoron term 'libertarian paternalism'. In their book *Nudge*, they suggest that nudging is about influencing people's behaviour in order to make their lives longer and healthier ('paternalistic aspect') while, at the same time, people should be free to do what they like ('libertarian aspect'). This 'soft paternalism' is backed by the 'publicity principle' of Rawls, which, in its simplest form, bans government from selecting a policy that is not 'in accordance with principles that one would be willing as a rational being to enact as law for a kingdom of ends' (Rawls, 2003, p. 115).

The use of nudging is not limited to public health (Bonell *et al*, 2011). It has become a widespread technique to influence human behaviour in many policy domains. For instance, the design of the public space is an important element in security policies. At several airports, low-risk passengers can register

themselves to cross international borders more quickly and without being held up for questioning or physical inspections. In exchange, these passengers hand over their biometrical data (including fingerprints and iris scan) to border authorities. In this arrangement, control is transformed from an action induced by an exterior agency to hamper the flow from outside to a self-induced control mechanism to allow the fastest movement possible (Romein and Schuilenburg, 2011; Schuilenburg, 2015). Surveillance is thus 'designed into', as Rose (2000) called it, the flows of everyday existence. As such, these types of techniques do not oppose or limit the freedom of individuals, but use the freedom of citizens as an instrument of penal power. This means that individuals adapt their own behaviour in response to incentives, which are an integral part of the design of public space.

To get a better understanding of the technique of nudging, we discern three characteristics (Schuilenburg and Peeters, 2015). First of all, nudging implies interventions in the *choice architecture* (the physical, socio-cultural, and administrative environment) in which people live out their lives and make decisions. According to Thaler and Sunstein (2009, p. 5), nudging strives to design environments that 'maintain or increase freedom of choice' by relatively weak, soft, and non-intrusive types of intervention. A good example of the way the environment that surrounds us is used as a technique to modify people's behaviour is the way a Scandinavian hotel chain managed to reduce food waste. Plate sizes were reduced while signs encouraged customers to help themselves to food more than once (i.e. signalling that they did not have to overload their plates the first time because they could always come back for more). The effect of these measures in combination was a 20 per cent reduction in food waste (Kallbekken and Sælen, 2013).

The concept of 'script', as elaborated by Akrich and Latour (1992; see also Latour, 1993), is helpful to understand the way the choice architect, who is called to be the agent of design-led change of people's behaviour, anticipates how users will interact with their environment. A script is not just the set of directions for use, it is rather the 'built-in' of 'prescriptions' that impose themselves on the user: inviting one choice of action rather than another. A speed bump, for example, has the script 'slow down when you approach me'. It translates a driver's intention from 'driving fast, because I'm in a hurry' to 'driving slowly to save my shock absorbers' (Verbeek, 2006, p. 58). But, although it encourages drivers to reduce their speed, this type of script is not absolute: it leaves room for other choices.

Secondly, nudging theory sees a *positive, injunctive norm* as more effective than a negative, informational one (Thaler and Sunstein, 2009, p. 68). The idea is that both public and private parties need to offer nudges that are most likely to help and least likely to inflict harm. Especially for choices that 'have

delayed effects; those that are difficult, infrequent, and offer poor feedback; and those for which the relation between choice and experience is ambiguous' (2009, pp. 74, 78–79), people will need, in the words of Thaler and Sunstein, good nudges. This means, for instance, offering healthy alternatives instead of merely warning against unhealthy behaviour: improve bike lanes at the expense of space for motorised traffic. The question of course remains whether it is possible to decide if nudging can have a demeaning or manipulative character (Goodwin, 2012; Waldron, 2014). Hansen and Jespersen (2013) argue that Thaler's and Sunstein's appeal to Rawls' publicity principle is insufficient as a safeguard against non-legitimate state manipulation of people's choice. Part of the problem of nudging is that it is extremely difficult for citizens to reconstruct either the intention or the means by which behavioural change is pursued. Also, evidence to support the effectiveness of nudging as a means to improve, for instance, population health and reduce health inequalities is weak (Marteau *et al*, 2011).

Thirdly, nudging is *critical of the homo economicus* view of human beings in standard economic framework. In many cases, the fundamental assumption of classic economic theory that people are able to identify and choose what is best for them, when provided with accurate information about their circumstances, is 'a obviously false assumption' (Thaler and Sunstein, 2009, p. 9). Behavioural decision research shows that people are not always able to choose what yields the greatest happiness or best experience (e.g., Grüne-Yanoff and Hansson, 2009). People fail to choose optimally, either because they overstate immediate relative to long-term prospects, develop all kinds of harmful habits, or copy the behaviour of others in their social group, even if this behaviour is detrimental to their health or safety. As a result, people still eat to obesity, smoke cigarettes, and consume large amounts of alcohol despite longstanding explicit health warnings. Against this background, one of the most important aspects of nudging is that it invokes a subject image that is based on unambiguous emotions, such as 'anger, hatred, guilt, shame, pride, liking, regret, joy, grief, envy, malice, indignation, jealousy, contempt, disgust, fear, and, oh yes, love' (Thaler, 2000, p. 139).

Although Thaler's and Sunstein's analysis of nudging has produced a huge amount of responses, the nudging literature does not offer a general thesis that can be applied to explain how the technique of nudging entered various realms of policymaking and influenced the ways of thinking and styles of reasoning in these practices.[3] In the following pages, we sketch the way this has happened in the field of public health and what this means for our understanding of public health governance in contemporary society. By this, we aim to deepen our understanding of the way nudging is actively engaged in ways to govern citizens by reason and truth itself.

Methodology

Edwin, the fictional protagonist of the aforementioned public health initiative, is constantly being nudged towards a healthier lifestyle. His environment is designed in such a way that healthy choices become more attractive, positive norms are introduced to help him develop a lifestyle that will benefit his health in the long run, and nudges work on a psychological or emotional level rather than a rational or instructive one.

To gain a better understanding of the rationality that organises Edwin's behaviour, we conducted a genealogy of techniques in public health policy. A genealogy aims to trace the ways in which certain concepts or practices are represented and become known as 'normal' or 'inevitable'. Following Foucault (1976a), and several 'Foucauldians' (e.g., Dean 1994; Garland, 2014), a genealogical analysis is not concerned with value judgement. Rather, it deconstructs 'truth' by showing the arguments and mechanisms that have led to the development of contemporary practices or institutions or – as in our case – a certain governing technique. While the focus of this article is based on a case study of developments in Dutch public health policy of the last 45 years, we believe that our findings are comparable to developments elsewhere in the western world, especially in Western Europe.

The empirical data come from Dutch central government's public health policy memoranda, annual Queen's speeches at the opening of the parliamentary year, government policy outlines, and various coalition agreements from the years 1966–2012 (Peeters, 2013). In total, around 75 documents were analysed. The purpose of the analysis was to reconstruct the development in policy techniques – the ways government defines issues of public health and proposes to intervene in society. Our focus was limited to policies with regard to lifestyle diseases. Policies concerning health care and public hygiene were also part of Dutch policymaking, but fall outside our scope, since they have been extensively described by others (e.g., De Swaan, 1988; Boot and Knapen, 2005; Mackenbach and van der Maas, 2008) and have not fundamentally changed in the last decades. This also means that we did not include an analysis of variances in public spending on health care. Therefore, we cannot dismiss that economic drivers might have had an impact on developments in public health policy, even though our data suggests that the main argument for new policy techniques has been the emergence of lifestyle diseases and the subsequent quest for the most effective way to change human behaviour. For analytical purposes, we have divided the following policy genealogy into four periods in which a specific technique was dominant.[4] The main trend in these periods is a gradual development towards, what we call, 'mindpolitics':

– Before 1983: rational persuasion/individual responsibility;
– Between 1983 and 1990: welfarist emancipation of vulnerable citizens;
– Between 1991 and 2002: regulations and limitations;
– After 2003: management of choice.

Policy Genealogy: From a Healthy Body to a Healthy Mind

Introduction

In many Western European countries, legislation was passed in the late nineteenth century to regulate and control public health issues. These laws were a practical answer to the problems of a rapidly urbanising and industrialising society, in which contagious diseases could spread from the workingman's slums to the neighbourhoods of the upper classes (De Swaan, 1988). Hence, public hygiene was seen as a matter of social order and control. It became one of the core areas for regulating, managing, and 'policing' modern mass societies. This marked a shift from earlier practices with regard to health, which were most often of a private and charitable nature, and not regarded as a public concern. From the late nineteenth century onwards, health and illness became not just the object of a medical–biological perspective, but also of a public perspective. The difference is crucial. The medical–biological perspective – generally speaking – individualises health matters to a doctor–patient relationship, whereas the public perspective focuses on social concerns such as contagious diseases, public expenditures, and a productive labour force. The population as a whole is the interest and object of intervention.

What characterised public health policies for the better part of the twentieth century was an emphasis on 'disease' and its exogenous determinants, against which the population needed to be protected by means of public hygiene. When citizens did get injured or sick, they had – after the construction of the welfare state – access to health care services. Until today, the nature of public hygiene and health care has not substantially changed. New knowledge, new diseases, and new technologies may have emerged, but the underlying objectives and strategies remain unaltered. However, both public hygiene and health care proved to be largely ineffective against lifestyle diseases, such as cardiovascular diseases, diabetes, and several forms of cancer, which quickly became a public concern during the 1970s. In response, governments shifted their attention to endogenous determinants of health – most importantly, smoking, drinking, eating, and exercising. Since the 1980s, lifestyle has become the object of policymaking (e.g., Wilkinson and Marmot, 2003; Boot

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and Knapen, 2005; Pomerleau and McKee, 2005; Keller, 2008; Mackenbach and van der Maas, 2008).

Rational persuasion: before 1983

Our genealogy starts in 1966 – a year that marked an important turning point in Dutch public health policy. New social legislation, including a National Health Insurance Act, sparked the necessity for a more structural and national approach to public health. The 1966 Public Health Memorandum[5] – the first of its kind – was, above all, an inventory of the patchwork of local, national, private, and public health services. Government's focus was explicitly on two different issues: health care and health protection. The former dealt with the organisation and funding of curative provisions, and the latter referred to vaccination programmes and regulations for public hygiene. In the light of rapid societal developments – such as population growth, increased traffic and pollution, development of new medicines, and new threats to water quality and food safety – increased state interventions were deemed necessary (PHM, 1966, p. 188).

While the attention for lifestyle diseases was (still) small, the first signs of a new strategy were visible. The Dutch government envisioned a new role for itself from controlling epidemics and obvious abuses in public hygiene a hundred years ago, and the protection of the workplace conditions over the last 75 years, towards 'a more general protection and promotion of public health, both in physical and mental terms' (PHM, 1966, p. 187). This role would imply a responsibility for the improvement of healthy living habits, healthy choice of food, physical exercise, and regular recreation (PHM, 1966, p. 173).

The nature of this responsibility is determined by a very specific perspective on citizens. According to the Dutch government, an 'individual is primarily responsible for his own and his family's health and safety, in so far as this can be influenced by himself' (PHM, 1966, p. 10). This interpretation makes protection against exogenous health threats a logical role of the state. With regard to endogenous health threats, that role is limited to areas where 'individual citizens are no longer able to protect themselves or make a responsible choice' (PHM, 1966, p. 14). Moreover, this interpretation implies an image of the citizen as a rational actor: he is able to understand the risks to his health and is able to influence them.

The main technique of government intervention is rational persuasion. After all, this gives citizens the opportunity to act rationally: 'Public information campaigns will raise the awareness of everybody's responsibility for one's own health and the health of fellow citizens, as well as the awareness of the consequences of certain risky lifestyles' (GD, 1971, p. 144).[6] The line between overestimation and underestimation of citizen responsibility

is a thin one – as the Dutch government admits (PHM, 1966, p. 100). A specific example illustrates where the line should be drawn: 'it is not a task of government to ban the smoking of cigarettes. It is, however, a responsibility of government to prudently inform the users of these products of the dangerous relation between smoking and lung cancer. It should be stressed, however, that every adult is free to continue smoking and increase the risk of lung cancer' (PHM, 1966, p. 170).

Emancipation of vulnerable citizens: 1983–1990

From 1983 onwards, lifestyle diseases became a focal point of policymaking. More specifically, the Dutch government grew increasingly concerned about 'the relation between behaviour (lifestyle) and disease' (PLM, 1983, p. 6).[7] Furthermore, the Dutch government shifted its focus from 'illness' to 'health', or the full participation of all citizens in society, unhindered by physical or mental problems (MDP, 1986, p. 47).[8] This is, in part, a consequence of the nature of lifestyle diseases, which are very difficult to cure and can, therefore, best be prevented: 'The realisation that health is more than the mere absence of disease has led to a shift in public health policy to the healthy individual, and the possibilities to promote health as much as possible' (PLM, 1983, p. 8). Investments in health care show a decreased added value in the face of lifestyle diseases (MDP, 1986, p. 225).

At first glance, the Dutch government appears to uphold the same argument for intervention as it had in the previous period. It assumes endogenous lifestyle factors to be 'more or less within the control of an individual' (MDP, 1986, p. 44). However, government does not draw the same conclusion: 'The responsibility for health cannot be automatically individualised' (PLM, 1983, p. 9). Instead, one has to take into account circumstantial factors. For instance, the 'economic transformation from physical to non-physical labour, and the increased possibilities for consumption have stimulated lifestyles that bear obvious risks' (PLM, 1983, p. 9). Moreover, '[o]pting for healthy or risky behaviour is often not a free choice' due to the limited time people have in a day, and because habits of smoking, drinking, and exercise are to a large extent determined by a person's social context (PLM, 1983, p. 9).

This argument allows for the articulation of a different governmental strategy that uses 'an emancipatory model, in which people are stimulated to make conscious decisions with regard to their health' (MDP, 1986, pp. 46–47). Especially, people from the lower socio-economic strata, including cultural minorities, are the object of such an emancipatory approach, since they – on average – have unhealthier lifestyles (MDP, 1986, p. 48). Children and adolescents form a second specific target group, because a 'preventative policy aimed at lifestyle change is most effective when it can be started at an

early age' (MDP, 1986, p. 57). Moreover, adolescence is 'the age at which people take independent decisions for the first time in their life, also with regard to such lifestyle activities as smoking, traffic behaviour, use of contraceptives, et cetera' (MDP, 1986, p. 61).

People are seen as vulnerable to unhealthy behaviour beyond their control, such as 'smoking, excessive drinking, unhealthy eating habits, and unsafe behaviour' (MDP, 1986, p. 62). Government's two main emancipatory techniques are education and – to a lesser extent – regulation. Most citizens were presumed to be rational actors that will change their behaviour once informed about the health risks of a certain lifestyle: 'The objective of health information and education is to make visible the negative influences of industrialisation, automated production processes, urbanisation and an increased number of consumptive possibilities on a person's lifestyle, and to motivate people to consciously change their behaviour, with the objective to counteract or ease the harmful effects on health' (PLM, 1983, p. 11). Concrete examples are tobacco and alcohol information at schools and use of mass media, including specific campaigns for adolescents and pregnant women. The main difference with the rational persuasion technique from the previous period is government's focus on vulnerable target groups.

What further sets the 1983–1990 period apart is the introduction of regulatory interventions, which were meant to complement and support health education. Unlike health information and education, these regulatory interventions do not presume the citizen as a rational actor. Instead, citizens are perceived as vulnerable to health threats in their social environment, such as non-physical labour and socially engrained habits of smoking and drinking, which are difficult to avoid by even the most rational of actors. Regulatory disincentives are designed to protect citizens against the failing of their own rationality. Different kinds of barriers are introduced between citizens and unhealthy temptations. Examples of regulations for alcohol use are a stricter licencing system for alcohol vendors, a ban on radio and television commercials for alcohol, stricter closing times for bars, and raising of excises (MDP, 1986, p. 153). With regard to smoking, warning signs on tobacco packaging became mandatory, a smoking ban in public buildings was introduced (also to protect non-smokers), and vending points were limited, as well as commercials aimed at adolescents (PLM, 1983, p. 16; MDP, 1986, pp. 170–173; PCD,[9] 1987, pp. 36–47). In hindsight, it seems plausible to suggest that this period represents a first step towards the governing of citizens by the use of 'mindpolitics', in which individual choice becomes the object of intervention.

Regulations and limitations: 1991–2002

The positive emancipatory approach deployed in the previous period would quickly give way to a strategy that emphasised regulation over education. An important argument for this shift is government's realisation that especially vulnerable citizens do not act rationally. Rational behaviour is defined by government as healthy behaviour, which '[…] serves the individual and the collective cause. Improving health and preventing disease are investments in "human capital"; they enhance a socially and economically productive life' (PPH, 1992, p. 5).[10] The assumption is that people want to live a healthy life, but often do not or cannot. Interventions should improve 'the match between the importance people attach to their health and their actual individual […] behaviour' (NH, 1998, p. 20). Existing policies do not seem to have the intended effect: 'The people who stand most in need of education and stimulation in their development, where the risks for the children and society are the biggest, appear to be the most difficult to reach by care services' (ESDS, 1998, p. 9).[11]

Given these considerations, the Dutch government aimed to improve the identification of risk groups and develop outreach methods to proactively offer support to citizens at risk (ESDS, 1998, pp. 13–16). Under the motto 'avoidable health loss' (e.g., WHR, 1990, p. 10; HP, 1991, p. 2), government increasingly focused on '[…] a number of priorities in the realm of prevention: discouraging tobacco use, improving nutrition, stimulating healthy physical exercise, increasing safety in the private domain, at work and on the streets' (PHP, 1995, p. 4).[12] Eating, smoking, drinking, and physical exercise – activities that make up a large part of citizens' daily lives – were the explicit object of intervention (APPP, 1997).[13] This more interventionist attitude is mirrored in a shift in policy techniques. Regulation of behaviour became favoured over educating and informing the public.

The expansion of the regulatory repertoire mainly aimed to affect habits of tobacco and alcohol use. This included the introduction of age limits, a stricter enforcement of existing regulations, further limitations on advertisement, increase of excises, and expansion of smoking bans to trains, post offices, banks, et cetera (TDP[14], 1996, pp. 2–9; AP[15], 2000). By contrast, the approach to nutrition and physical exercise was characterised by the use of more positive incentives. Especially, obesity – an important risk factor for various types of lifestyle diseases – became the object of interventions, such as labelling of food products which fit within a healthy lifestyle, information campaigns on healthy food, the promotion of healthy food in school canteens, research into nutritional habits and effective measures to influence behaviour, and consultations with food producers and vendors to adapt their supply to societal demand for healthy products (PHP, 1995, pp. 23–24; NH, 1998, p. 5).[16]

During the 1990s, the government's public health policy moved away from the emancipatory/welfarist approach of the 1980s. Regulations were favoured over education – a choice prompted by indications that knowledge and support alone do not make citizens act more rational, i.e. healthier. Stricter regulations were introduced to discourage people from smoking and drinking. Next to that, a new type of positive interventions also started to emerge. The active promotion of healthy nutrition and physical exercise hints at the following period, in which the next step towards lifestyle management is made. Whereas the Dutch government emphasised barriers between citizens and unhealthy behaviour in the previous period, it would come to embrace a more comprehensive approach to actively promote healthy behavioural patterns in the next period.

Management of choice: 2003 onwards

From 2003 onwards, policies move beyond the neo-liberal regulation paradigm of the 1990s. On the one hand, economic values still motivate policymaking: 'Public health is of great importance for the vitality and resilience of our society. The more people are healthy, the higher the labour productivity and the lower the costs of disease-related absenteeism and disability will be. Therefore, public health is an important resource for our prosperity' (LLGH, 2003, p. 9).[17] On the other hand, governing from a distance through impersonal and universal regulation seems to be less and less effective: 'People do not *have* to smoke or drink too much, but many of them do. People *can* get enough physical exercise, but (only) less than half the population wants to exercise half an hour a day. Physical exercise can prolong your life by three years. Healthy food, such as vegetables and fruit, is on sale in abundance, but many people prefer fat, sweet or salty products' (CHL, 2006, p. 4).[18]

Confronted with this behaviour, the Dutch government decided to abandon the model of the rational citizen in policymaking. People do not 'automatically' behave rationally – i.e. healthy – when given the proper information ('70s), when educated proactively ('80s), or when regulation makes unhealthy temptations less attractive ('90s). The problem is not a lack of knowledge, but a lack of willpower. In general, people know what sort of behaviour is unhealthy, but they fail to change it because of 'factors that are an inherent part of the way our modern society is structured' (CO, 2005, p. 2).[19] We live in a society in which non-physical labour is the norm, fast food is available on every street corner, and motorised traffic has banished physical exercise from daily life. As a consequence, 'it is becoming increasingly easy to eat more and to exercise less' (OM, 2009, p. 7).[20] What is needed is 'an approach that actually gets through to citizens: at home, at school, at work, at places where people spend their leisure time, in the neighbourhood, and in the general practitioner's consulting room' (LLGH, 2003, p. 3).

Despite the farewell to the rational citizen, policies are still framed in terms of individual autonomy. 'Responsibility' and 'choice' are core concepts – only now as manageable objects, instead of as liberal principles that form a barrier against state intervention. In fact, government's task is to 'support citizens in choosing healthier lifestyles' (LLGH, 2003, p. 5) and to 'persuade people to make healthier choices' (CHL, 2006, p. 4). More specifically, the objective is to intervene in society's choice architecture and to 'make the healthy choice the easy choice' (HN, 2008, p. 5).[21] This means that 'healthy products should be easily available (outlets, pricing, promotion) and the living environment should be supportive of physical exercise (for instance, in the layout of residential areas)' (CHL, 2006, p. 4).

Specific measures by governmental authorities, often in cooperation with schools, caterers, supermarkets, and food companies, include reducing portion sizes of microwave dinners, offering healthier choices in vending machines, placing healthy products at eye level on supermarket shelves, 'social marketing' of a healthy lifestyle (i.e. selling a lifestyle like a pair of pants, such as making fruit easy and fun to eat), and rearranging the food offer in school and factory canteens. Existing regulations – as designed during the previous decade – remain in place, but they are complemented by techniques designed to manage choice and lifestyle. Tobacco policies provide a clear example of the new techniques government deploys:

- Choice architecture: the living environment is designed in such a way that smokers are separated from non-smokers. Moreover, designated smoking areas are deliberately made unattractive. Furthermore, the availability of tobacco products is reduced, especially for the younger generation, through age limits for the sale and consumption of tobacco, and the compulsory use of 'age coins' in vending machines.
- Social normalisation: tobacco use is presented as socially unacceptable behaviour. Explicitly normative publicity campaigns address parents to set an example for their children and present smoking as socially 'not done'. Advertisement bans for the promotion of tobacco products support these policies. Social normalisation does not appeal to rational arguments, but aims to work upon social peer pressure.

Analysis of the Data

It seems plausible to conclude that in the last decade the management of choice and lifestyle has become the main technique in the governance of public health. We have shown that this is part of a broader shift in public

health issues. Health protection and health care used to be implemented by external 'judges': the inspectors for food and drinking water safety, and the medical specialists for diagnosing and treating diseases. Nowadays, people are no longer simply the victims of externalities, since there are also 'many risks which people, mostly unintentionally, create themselves' (BHSH, 2007, p. 10).[22] Faced with the unhealthy temptations of late-modern society, the judge of lifestyle diseases has to become an 'internal judge' that chooses a healthier lifestyle. What does the emergence of nudging and related techniques in public health policy tell us about the way contemporary society is governed?

In order to answer this question, we turn to the work of Foucault, who coined the concept 'biopolitics' to describe how governments and authorities manage lives at the level of an entire population. Foucault (1976a, b, 2008, 2009) defined biopolitics as a modern form of power starting in the eighteenth century that is exercised at the level of life through control of the population. This power over life ('biopower') has been organised and developed along two lines: anatomic and biological. On the one hand, Foucault spoke of humankind as an anchorable object in disciplinary practices such as prisons, schools, factories, and hospitals. These 'anatomo-politics', as Foucault called them (1976a, b, p. 183; 2004, p. 243), attach themselves to the individual body and train it through a systematic division of space and time. By systematically bringing insights from the humanities into practice, individuals are turned into specific subjects.

On the other hand, regulatory mechanisms arise that direct themselves to the population as a whole. Within this framework, individuals are treated as examples of a biological kind. Whereas Foucault suggested in *The Will to Knowledge* (1976) that both power forms were becoming increasingly intertwined and exerting ever-greater mutual influence, he made a more explicit distinction between these two forms of biopower in his later lecture series *Security, Territory, Population* (2009) at the Collège de France. In addition, he reinterpreted the interaction with the population as an object of political policy on the basis of the more general notion of 'governmentality' [*gouvernementalité*], by which he understood a modern management of social relations in society, such as 'the government of children, of souls, of communities, of families, of the sick' (1983, p. 221; 1997, p. 27; see also Burchell *et al*, 1991).

What position, then, does nudging hold in this complex development? In our historical analysis of public health policy, we have shown that nudging and related techniques have entered the realm of public health and have become an attractive option for governments to influence people's behaviour. Key to this transition is the idea that people are 'nudge-able' and that they can

be governed from a distance by environmental technology and environmental psychology. Nudging allows individuals to choose freely, but also always implies that certain behavioural options are made more attractive than others. This is especially the case with regard to measures that affect the population as a whole. One vivid illustration of the way individuals are moved to make certain choices, whilst not restraining their freedom of choice, is the redesign of supermarket shelves or office canteens, where healthy products are placed at eye level or at the beginning of an aisle.

What is striking new about these psychological interventions – intended to influence the choices people make regarding their lifestyle – is that they focus on “how” the human mind works. This means that individuals adapt their own behaviour in response to psychological incentives, which are an integral part of the design of public space. As such, nudging is not a technique of juridical power – such as criminal law or social rights – nor is nudging a technique of discipline, which deprives the individual of his or her freedom to choose and works through his or her body inside institutions such as factories and schools. From a Foucaultian perspective, the rise of the ascribed techniques of nudging must be understood as an extension of ‘biopolitics’.[23] If one were to describe the way nudging seeks to ‘outsmart’ the unconscious mind, while enabling individuals to use their freedom by promoting positive values of health and self-efficacy, the notion of ‘mindpolitics’ would probably be the most likely candidate: on the one hand, we are presented with a historical development in which the ascribed techniques are focusing on the psychological triggers underlying human behaviour and choice (“how” the human mind works); on the other hand, we also encounter the governing of citizens, the roots of which take us back to the eighteenth century in which biopolitics started at the level of life in order to produce healthier and safer lives.

Conclusion

For centuries, governments have tried to exert influence on citizen behaviour, to have power over life. Sanctions, taxes, subsidies, and communication are commonly identified as the classic tools of governmental power (Salamon, 2002; Van den Heuvel, 2005; Bemelmans-Videc *et al*, 1998). However, governing contemporary societies, which are characterised by little control and many temptations for deviant behaviour, requires innovative techniques. Traditional techniques, which are often based in (criminal) law or in a set of social rights, no longer suffice. Even when citizens share the same values of attitudes as policy makers – e.g., a healthy life – this does not always materialise into action.

In our genealogy of techniques in public health policy, we have identified four periods – reflecting four techniques to make citizens act healthier – in public health policy: 'rational persuasion' ('70s), 'emancipation' ('80s), 'regulation' ('90s), and 'management of choice' (present). By the turn of the twenty-first century, individual choice has become the main problem and the main solution to public health issues. Lifestyle choices are the main cause of many diseases and government's preferred technique to influence lifestyles is by working upon the psychological mechanisms underlying human choice – a technique often referred to as 'nudging' (Thaler and Sunstein, 2009). These techniques do not oppose or limit the freedom of individuals, but use the freedom of citizens as an instrument of power ("power to").

One of the keys to nudging is the idea that people can be, what Miller and Rose (2008) have termed, 'governed at a distance'. Although nudging allows individuals to choose freely, it also implies that certain behavioural options are made more attractive than others. While people might want to make good decisions for themselves, the cognitive limitations of the human mind often make it difficult for the individual to make an informed choice, and the limitations of willpower can make it hard to follow through on choices made. Therefore, nudging techniques in public health try to understand the shortcuts and heuristics that people use to make decisions and then seek to influence or bend their environment. To emphasise the features of these psychological triggers – that is: 'how does the human mind work?' – we speak of 'mindpolitics' (cf. Schuilenburg and Peeters, 2015).

The idea that people are not (only) rational beings is a well-known fact in sociology, medicine, anthropology, and psychology (e.g., Alder *et al*, 2009; Graham, 1987). Making people change their lifestyle – even if they already believe a healthy life to be an important value – mostly requires more than just reducing the knowledge or information deficit regarding harmful behaviour or substances. Even a well-executed 'lay epidemiology' (e.g., Allmark and Tod, 2006), where scientific knowledge is effectively communicated to the general public and individual citizens, is likely to reach only a specific part of the population. Social and personal determinants, such as poverty, social class, peer pressure, and stress, have a big influence on the decisions people make regarding their lifestyle and account for many health inequalities among the population (e.g., Graham, 2009). Moreover, the nudging literature shows that especially preventative messages are vulnerable to an action–value gap, in which people do not act rationally according to the values they hold. Banal constraints in time or 'choice architecture' create default choices that take effort to get around. From a psychological perspective, Kahneman (2011) boils the issue down to the dominance in daily life of instinctive and emotional thinking over our other ability for deliberative and logical thinking.

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However, these insights do not translate directly into new policy concepts. An important explanation for this is that the assumption of the rational and responsible individual forms the basis of our western conceptions of citizenship, democracy, justice, and rule of law: "[…] a unitary, responsible self-agent must be supposed to exist because it is intellectually, juridically, and morally necessary" (Douglas, 1992/2005, p. 220). The concept of the citizen as rational actor legitimises both his rights and state intervention: it makes accountability of citizens and (elected) officials possible, provides a universal concept of (Kantian) justice, and forms a core argument to set the limits of state intervention in the private domain. This makes it all the more interesting that the notion of the rational citizens is explicitly abandoned in public health policy, raising question about where exactly the division of responsibility between citizens and state lies, and what the arguments for the limitation of state intervention are.

Therefore, the central question we answered in this article was as follows: In what ways have nudging and other behavioural techniques entered the realm of policymaking for public health and what does that mean for the way contemporary society is governed? First, we have shown that nudging and similar techniques to influence human choice making have become a core element in public health policies. Second, this transformation of public health policy can be traced back to structural societal changes, which produce many unhealthy temptations in daily life. As a consequence, the problem for which nudging is perceived to be the answer can be found at the level of the population. And third, we have analysed how this new population-level approach can be understood in terms of Foucaultian 'biopolitics'.

Mindpolitics is a thoroughly liberal technique of government. This is consistent with Foucualt's analysis of biopolitics, but what is striking here is the paradoxical combination of population-level objectives and an individualised 'active ingredient', i.e. individual choice. Mindpolitics stresses the opportunity of choice, allows for the free circulation of commodities (unhealthy products are rarely banned), and is often inspired by economic objectives such as workforce productivity or welfare state expenditures. Moreover, mindpolitics assumes that legitimacy of state intervention follows more easily from citizen's self-imposed restrictions than from a disciplining or moralising state. However, it is also true that free choice is being made instrumental to political objectives. This makes it increasingly difficult to separate freedom – as it is expressed by individuals in the private and public domain – from the realm of politics, where individuals are subordinate to collective action.

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Notes

1 Leaflet *Jongeren op Gezond Gewicht*, p. 7 (translation RP/MS). Via: http://www.bojoz.nl/website/themas/jongeren-op-gezond-gewicht.html.
2 https://jongerenopgezondgewicht.nl/ (Translation RP/MS). The approach is based on a French initiative (EPODE) and part of a bigger international network of similar approaches (http://epode-international-network.com/about/context/2014/09/15/epode-model.
3 Foucault makes a distinction between 'technique' and 'technology' (2009, pp. 8–9), in which technologies refer to a system of power (sovereignty, discipline, or security) and techniques deal with a concrete form of intervention on individual bodies, souls, or populations (e.g., prison cell, crime statistics). Against this background, we speak about nudging in terms of a technique.
4 All quotes from the analysed documents are translated from Dutch by the authors.
5 In Dutch: *Volksgezondheidsnota 1966*; TK 1965–1966, 8462/1. References to quotations in the text are abbreviated as 'PHM, 1966', followed by the page number.
6 'GD' stands for Government Declaration of Policy on Taking Office (in Dutch: *regeringsverklaring*) – in this case the declaration from 1971 (TK 5, 3-8-1971).
7 *Public Health Policy with Limited Means*. In Dutch: *Volksgezondheidsbeleid bij beperkte middelen*; TK 1983–1984, 18108/1–2. References to quotations in the text are abbreviated as 'PLM, 1983', followed by the page number.
8 *Memorandum on the Development of Public Health Policy*. In Dutch: *Over de ontwikkeling van gezondheidsbeleid*; TK 1985–1986, 19500/1-2. References to quotations in the text are abbreviated as 'MDP, 1986', followed by the page number.
9 *Prevention of Cardiovascular Diseases;* In Dutch: *Preventie Hart- en Vaatziekten*; TK 1987–1988, 20259/1-2. References to quotations in the text are abbreviated as 'PCD, 1987', followed by the page number.
10 *Prevention for Public Health;* In Dutch: *Preventie voor de volksgezondheid*; TK 1992–1993, 22894/1. References to quotations in the text are abbreviated as 'PPH, 1992', followed by the page number.

11 *Education Support and Development Stimulation;* In Dutch: *Opvoedingsondersteuning en Ontwikkelingsstimulering*; TK 1997–1998, 25980/1. References to quotations in the text are abbreviated as 'ESDS, 1998', followed by the page number.
12 *Public Health Policy 1995–1998;* In Dutch: *Volksgezondheidsbeleid 1995–1998*; TK 1994–1995, 24126/1-2. References to quotations in the text are abbreviated as 'PHP, 1995', followed by the page number.
13 *Action Programme Prevention Policy;* In Dutch: *Actieprogramma Preventiebeleid*; TK 1996–1997, 22894/14. References to quotations in the text are abbreviated as 'APPP, 1997', followed by the page number.
14 *Tobacco Disincentives Policy;* In Dutch: *Tabaksontmoedigingsbeleid*; TK 1995–1996, 24743/1. References to quotations in the text are abbreviated as 'TDP, 1996', followed by the page number.
15 *Alcohol Policy;* In Dutch: *Alcoholbeleid*; TK 2000–2001, 27565/1-2. References to quotations in the text are abbreviated as 'AP, 2000', followed by the page number.
16 *Nutrition and Health;* In Dutch: *Relatie Voeding en Gezondheid*; TK 1998–1999, 26229/1-2. References to quotations in the text are abbreviated as 'NH, 1998', followed by the page number.
17 *Living Longer in Good Health;* In Dutch: *Langer Gezond Leven: Ook een Kwestie van Gezond Gedrag*; TK 2003–2004, 22894/20. References to quotations in the text are abbreviated as 'LLGH, 2003', followed by the page number.
18 *Choosing a Healthy Life;* In Dutch: *Kiezen voor een Gezond Leven*; TK 2006–2007, 22894/110. References to quotations in the text are abbreviated as 'CHL, 2006', followed by the page number.
19 *Covenant on Obesity;* In Dutch: *Convenant Overgewicht*; TK 2004–2005, 22894/51. References to quotations in the text are abbreviated as 'CO, 2005', followed by the page number.
20 *Obesity Memorandum;* In Dutch: *Nota Overgewicht*; TK 2008–2009, 31899/1. References to quotations in the text are abbreviated as 'OM, 2009', followed by the page number.
21 *Healthy Nutrition;* In Dutch: *Gezonde Voeding*; TK 2007–2008, 31532/1. References to quotations in the text are abbreviated as 'HN, 2008', followed by the page number.
22 *Being Healthy, Staying Healthy;* In Dutch: *Gezond zijn, gezond blijven*; http://www.rijksoverheid.nl/documenten-en-publicaties/publicaties-pb51/gezond-zijn-gezond-blijven.html. References to quotations in the text are abbreviated as 'BHSH, 2007', followed by the page number.
23 To avoid any misunderstanding, the focus on "how" the human mind works does not depend on a false Cartesian mind–body dualism by privileging the emotional body over the rational mind. The mind–body dualism is an artificial construct rather than an inherent property of the individual. At the heart of Foucault's own analysis of power, he sought to transcend a mind–body dualism by describing the relations between knowledge and power that come to constitute subjects in a specific historical context. Nevertheless, the task of current research in biopolitics is not simply to describe the eighteenth-century disciplinary and regulatory mechanisms but also to reflect on the Kantian question: 'What is happening today?' (Schuilenburg and Peeters, 2015).

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