To nudge or not to nudge: cancer screening programmes and the limits of libertarian paternalism

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ABSTRACT
Nudging—and the underlying idea ‘libertarian paternalism’—to an increasing degree influences policy thinking in the healthcare sector. This article discusses the influence exerted upon a woman’s choice of participation in the Danish breast screening programme in light of ‘libertarian paternalism’. The basic tenet of ‘libertarian paternalism’ is outlined and the relationship between ‘libertarian paternalism’ and informed consent investigated. Key elements in the process of enrolling women into the Danish mammography screening programme are introduced. It is shown that for several reasons the influence exerted upon women’s choices of participation cannot be justified within a welfare-enhancing libertarian paternalistic framework. The article suggests that screening programmes alternatively adopt a liberty-enhancing approach and considers the practical implications of this alternative.

INTRODUCTION
The idea that it is acceptable to ‘nudge’ people to choose the ‘healthy option’ has gained currency in healthcare policy circles. The UK Cabinet Office has established a Behavioural Insight Team initially focusing on public health issues. The underlying theory is behavioural economics, and an idea called ‘libertarian paternalism’ proposed by Sunstein and Thaler. Libertarian paternalism claims to be able to reconcile paternalism and ‘free choice’. But is this too good to be true?

Cancer screening programmes are an important type of public health intervention, but can we justify nudging people to participate in them? We analyse the Danish breast screening programme, and show (1) that the influence exerted upon a woman’s choice in the enrolment process is significant and amounts to more than nudging, and (2) that the harm caused by screening programmes poses a challenge for the possibility of justifying this nudging from within a welfare-enhancing libertarian paternalistic framework.

The conclusions are general and are therefore, for instance, relevant to current UK discussions about breast screening.

LIBERTARIAN PATERNALISM: THE ETHICS OF NUDGING
The libertarian paternalist holds it is possible and desirable for both public and private institutions to influence people’s choices so as to increase their welfare while at the same time respecting their freedom of choice.1 An institution endorsing libertarian paternalism will thus steer or move people to choose in ways that will increase their welfare without blocking or fencing off choices.1

How may this be achieved? The libertarian paternalist suggests several strategies for influencing choices: (1) Institutions can impose trivial costs on those who seek to depart from the welfare-promoting options, (2) Choice can be influenced through the framing of options, that is, through wording or presentation of options, and (3) Choice can be influenced through institutional default rules. All strategies are taken to be consistent with the ‘freedom to choose’ in the sense that they, after all, leave the individual with a choice to be made.2 And, all have been shown to influence choice.2–4

Why libertarian paternalism? Or, if ‘free choice’ matters, why paternalism? Assuming welfare to be valuable, the libertarian paternalist sees welfare-promoting paternalism as supported by two traits of human and institutional life. First, that humans do not always—due to lack of information and experience, cognitive abilities, and self-control—choose what promotes their own welfare.2 Second, that paternalism is unavoidable since institutions inevitably will act in ways that influence peoples’ choices. Given these two facts, there seems to be some grounds for claiming that institutions should strive to move people to choose in ways conducive to their own welfare while leaving them with the ‘freedom to choose’.

Libertarian paternalists do not allow strong paternalism involving coercion,5 but it is important to note that imposing costs on choices may turn into coercion if the costs are significant. Central to the notion of coercion is that the coercer imposes costs that provide a person with a strong reason for acting in a certain way.6

LIBERTARIAN PATERNALISM AND INFORMED CONSENT
This article focuses on the possibility of justifying the influence exerted upon a woman’s choice to participate in a screening programme within a libertarian paternalist framework.

Screening programmes also raise problems of informed consent which have, however, been discussed extensively in the literature.6 Key to the validity of an act of consent is that the consent is provided on the basis of adequate information and without undue influence.7 The validity of consent can thus be undermined, first, through the inadequate provision or representation of information. Second, through undue influence exerted upon a person’s choice of participation. For an evaluation of the screening programme within the framework of informed consent, it thus becomes relevant to distinguish between the different ways of influencing choices, that is, to distinguish between the way in
which information is provided and the voluntariness of the consent, and to evaluate these separately.

Libertarian paternalism does rule out ‘undue influence’ defined as coercion. But it does not rule out the provision of information that would be inadequate in relation to a valid informed consent. If nudging can be achieved through the provision of inadequate (but presumably not false) information then it can be justified. As such libertarian paternalism entails a weakening of the standard requirements of informed consent.

NUDGING PARTICIPATION IN THE DANISH BREAST-Screening Programme

As already mentioned the information given to women invited for breast screening in publicly funded screening programmes has received attention in recent years. The focus has been the question of the adequacy of the information in light of the requirements of informed consent. However we will particularly focus on the framing of information and other paternalistic elements in order to discuss whether the influence on a woman’s choice of participation is compatible with libertarian paternalism.

In the Danish breast-screening programme women aged 50–69 receive an invitation to participate via a public database. Accompanying the invitation is a national information leaflet issued by the Danish National Board of Health (DNBH). The elements of importance for the analysis are:

1. As default the invitation contains a prebooked appointment for screening. Every woman is presumed to consent to screening, but may opt out by contacting the clinic. If a woman simply decides not to turn up to the appointment she will receive further reminders.

2. On the very first page of the information leaflet it states that ‘DNBH recommends screening on the basis of having balanced the pros and cons of the examination’.

3. The leaflet mentions unnecessary treatment of harmless lesions. It states: ‘Some of the early stages of cancer found and removed would never have developed into breast cancer even if no surgery was performed’. It does not mention that (a) only early stages of invasive cancer are removed, but also carcinoma in situ and (b) unnecessary treatment results in the removal of parts of the whole of the breast and in some cases also in radiation treatment and chemotherapy. Nor does it mention (c) the extent of overdiagnosing and unnecessary treatment, but claims that there ‘... is still uncertainty about the extent of unnecessary treatment’. However, evidence of unnecessary treatment has been published in the British Medical Journal and there is also ‘some uncertainty’ about the extent of the positive effects of screening.

4. The leaflet also states that ‘Although no screening is 100% certain, you do have reason to feel more secure if the mammography turns out to be normal’. This is misleading since (a) around 99.5% of the women participating turn out not to have cancer, and if screening raises no suspicion of cancer there is around 99.5% chance of not having cancer, and (b) in approximately one-third of the cases breast cancer is diagnosed in between screening intervals, and (c) the invitation to participate in itself may generate insecurity and anxiety.

5. Furthermore, the leaflet claims that among the women invited for breast screening the mortality rate drops by 25%. This figure originates in a small Danish observational study. In meta-analysis of randomised trials this figure is shown to be 15%–16%.[16,14] The leaflet also states that of the women actually being screened the mortality rate drops by 57%. This figure is misleading since it ignores the possibility of the ‘Healthy Screenee Bias’.  

These samples indicate a clear intention on behalf of DNBH to influence women to participate in the screening programme. All the strategies suggested by the libertarian paternalist—the imposition of costs, the framing of information and the use of default rules—are put to use.

THE DANISH BREAST SCREENING PROGRAMME: NUDGE OR SHOVE?

The invitation to participate in the screening programme and the information leaflet confers costs on the choice of non-participation in the screening programme in various ways.

First, by the default enrolment of women. In the Danish context most people feel bound by norms of courtesy, and a choice to opt out is likely to either lead a woman to contact the hospital and cancel the screening, or to create a feeling of guilt—not least in the face of written reminders—if no cancellation is made. The fact that the screening programme is aimed at preserving the health of women—a fundamental interest of most people—may further deepen the burden or the feeling of guilt. Some women will even feel obliged to undertake the difficult task of explaining and justifying their priorities to the hospital.

Second, the unequivocal recommendation—based on the weighing up of pros and cons—by DNBH also adds to the costs of non-participation. This is likely to happen in two ways.

The first is related to the technical expertise or authority of DNBH. In general the Danish public is characterised by trusting the quality and good intentions of the public healthcare service. Most people would have deep-seated expectations that its recommendations are conducive to improved health. Hence a decision not to participate in the screening programme is likely to be perceived as acting in a way that jeopardises physical welfare or health. A choice of non-participation becomes associated with the cost of an increased risk of suffering and dying from breast cancer. This cost is further deepened by the information in the leaflet. The information indicates that participation has health benefits and gives reason to feel more secure, and the harms are downplayed. However, it is not obvious that a difference of around 0.35% in chance of not having cancer should provide a decisive reason for participation. Moreover, if the potential harms are taken into account it is not unreasonable for a woman not to participate, and she would not be acting in a way that clearly jeopardises her welfare or health.

The second way in which the costs are increased by the recommendation of DNBH is related to its social power. DNBH is commissioned to assist the Ministry of Health in the administration of the healthcare services, and to monitor and evaluate the quality of the services. Hence a choice of non-participation places a woman in opposition to a powerful governmental and healthcare institution.

The invitation unequivocally associates non-participation with risk to health and welfare. For the woman with a strong interest in her health, there seems to be little doubt this is a strong reason for participation.

THE DANISH BREAST SCREENING PROGRAMME: WELFARE OR LIBERTY-ENHANCING PATERNALISM?

Libertarian paternalism is directed at promoting welfare without compromising individual liberty. In breast screening programmes the welfare gained is a reduced mortality rate and possibly more gentle treatment and less aftercare for the woman with progressive, invasive breast cancer. Of 2000 women being screened for 10 years, 1 will be saved from dying from breast cancer. There seems to be little reason to doubt that most...
women would consider survival and more gentle treatment to be significant health benefits.

The breast screening programme also causes significant harms. There is evidence indicating that of 2000 women being screened for 10 years, 10 will unnecessarily be diagnosed with breast cancer and have parts or the whole of their breast removed, and some of these will receive radiation therapy and chemotherapy. Approximately 200 of the 2000 women will have false-positive results, and for some this will cause anxiety, despondency, sleeping problems, changes in relations to relatives and friends, reduced sexual appetite and change in existential values. These harms are not made explicit in the leaflet. There seems to be little reason to doubt that most women would consider these to be significant harms even if the numbers of false-positives were somewhat lower.

The harm caused by screening programmes clearly poses a challenge for the attempt to justify the rather significant exercise of nudging in the enrolment process. It poses a challenge for any exercise of paternalism. Whether we use an objective standard of benefits and harms, or we go with the women’s own standards, these are undoubtedly significant benefits and harms. But if so, then it is not clear that participation in the screening programme is welfare-enhancing. Actually, in the course of running a screening programme there will be more cases where harm is caused than cases of beneficence when comparing the harm of overtreatment and false-positives with the benefit of survival. Moreover, the harms and benefits fall to different people in most cases. Now, the challenge to the libertarian paternalist is not to show that balance more welfare is generated by screening programmes, but rather to show that the use of paternalistic measures to enrol people into screening programmes are justified by the welfare it generates or sustains for each individual. It seems that the libertarian paternalist cannot meet this challenge.

Where does this leave us? Let us accept: (1) the creed of libertarian paternalism—that people do not choose what promotes welfare and that institutions inevitably affect peoples’ choices, (2) that breast screening programmes cannot be said to be unequivocally welfare-enhancing for the individual, and (3) that from a public health perspective there is good reason to run screening programmes. This leaves us with the problem of deciding at what objective—if not welfare—the inevitable influence on a woman’s choice should be directed. If the inevitable influence on the choices of women is not to be directed at the maximisation of welfare, then at what value should it be directed? The obvious answer to this question is ‘liberty’. Libertarian paternalism involves first and foremost a commitment to individual liberty. Hence institutions that design and run screening programmes should strive to influence choice in ways that maximise individual liberty.

In the case of the Danish breast screening programme there seems to be at least three implications of shifting the focus to liberty. First, the invitation to participate in the screening programme and the accompanying information leaflet should adequately present readily understandable information about the potential harms of participating in the screening programme. By so doing the woman preoccupied with her health is given more options of acting in this interest. Second, the default enrolment rule should be changed from opt-out to either mandated choice or opt-in. By requiring women to make active choices it is left for them to balance the benefits and harms of participation. Third, DNBH should abstain from making any recommendations ‘based on the weighing-off of the pros and cons’. The DNBH should not add its authority to one particular course of action.

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