



Helpdesk Report: Use of Behavioural Economics in Development Interventions Date: 9th February 2012

Query: To what degree has behavioural economics and, in particular, the concept of 'nudging' been understood and used in development interventions to improve human development outcomes? How has the impact of these interventions been measured?

How far has behavioural economics, and particularly 'nudging theory' been used in development interventions? How has the impact of this approach been measured?

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1. Overview

The concept of 'nudging' was first explained in Nudge: Improving Decisions about Health, Wealth and Happiness, a book by American academics Richard Thaler and Cass Sunstein. Nudge theory is based on a libertarian paternalist approach. Libertarian paternalism contends that people should be free to do what they choose; but that it is legitimate for people's behaviour to be influenced in a positive health direction. Key readings for those in the international development field include the book by Karlan and Appel, 2011 and the article by Bovens, 2010.

The "nudge" has been taken on by some of the British policy elite, epitomised by the creation of the Cabinet Office's behavioural insights team (the so called nudge unit). The reason for the political popularity of nudging is that it offers politicians a tool through which they can offer guidance, without enforcement, on individual behaviour change that is good for and, on reflection, preferred by, individuals themselves.

Nudging has been used in many contexts, primarily in the US and UK, although it has also been used in developing countries. The extent is has been used and case studies are presented in **Section 4**. **Section 5** presents information on whether it has improved human development outcomes. One key criticism is that nudging focuses

only on changing individual behaviours in isolation from the broader social, cultural and economic determinants of health and development. Rather than combating poverty and injustice, nudgers can only hope to compensate by nudging people more vigorously. **Section 6** considers the impact of 'nudging'. Behavioural change interventions appear to work best when they're part of a package of regulation and fiscal measures. Public health policies should be based on the best available evidence. 'Nudge' contains some eye-catching ideas, but little progress will be made if public health policy is made largely on the basis of ideology and ill-defined notions that fail to deal with the range of barriers to healthy living. Other issues raised include the lack of a strong evidence base and the inherent contradiction in the nudge philosophy of 'libertarian paternalism': free choice, so long as you make the one decided by authority

2. What is nudging?

The concept of 'nudging' was first explained in Nudge: Improving Decisions about Health, Wealth and Happiness, a book by American academics Richard Thaler and Cass Sunstein. They argue that most decisions people make are unconscious or irrational. Therefore their behaviour can be manipulated by changing the way that choices are presented to them. Governments should try to influence people's behaviour to make their lives healthier as long as this doesn't involve coercion or significant financial pressures. There is scope to use approaches that harness the latest techniques of behavioural science to do this – nudging people in the right direction rather than banning or restricting their choices. 'Nudges' may involve actions such as increasing the prominence of healthy food in canteens, requiring people to opt out of rather than into organ donor schemes or providing small incentives for people to act more healthily.

The nudgers or choice architects are trying to encourage individuals to enact beneficial behaviours but no compulsion is involved. Nudge theory is based on a libertarian paternalist approach. Libertarian paternalism contends that people should be free to do what they choose; but that it is legitimate for people's behaviour to be influenced in a positive health direction to make their lives longer, healthier and better (i.e. paternalism steering choices in ways that will improve their lives). This influencing process is performed by choice architects, these are individuals or groups who organise the context in which people make decisions, and whether they intend to do so or not, influence people's behaviour. This approach gives people a nudge and makes it easier for them to make healthy choices that will improve their lives, whilst acknowledging their freedom not to do so.

3. Key Readings

Nudge: Improving decisions about health, wealth and happiness

Thaler, R.H., and Sunstain, C.R., 2008

The concept of 'nudging' was first described in this book by the US academics Richard Thaler and Cass Sunstein. They argue that most decisions people make are unconscious or irrational and governments should try to influence people's behaviour to make their lives healthier as long as this doesn't involve coercion or significant financial pressures.

The book includes a section dedicated to health, with chapters on prescription drugs, how to increase organ donation and saving the planet. It also includes theories about the way people think; describing the reflective and automatic system.

More than Good Intentions: How a New Economics is Helping to Solve Global Poverty

Dean Karlan and Jacob Appel, Penguin, 2011 <u>http://www.amazon.com/gp/product/052595189X/ref=as_li_tf_tl?ie=UTF8&tag=nudg</u> <u>e-</u> <u>20&linkCode=as2&camp=1789&creative=9325&creativeASIN=052595189X#reader_</u> 052595189X

This book is based around applying behavioral economics to problems in international development. The focus is on making small changes in areas like banking, insurance, and health care that can produce dramatic improvements in decision making and well-being.

Says Richard Thaler: "Karlan is one of the most creative and prolific young economists in the world. His research lies at the intersection of two of the hottest areas in the field: behavioral economics and development microfinance... [His and Appel's book is] a good follow-up to *Freakonomics*, *Predictably Irrational*, and *Nudge* with a development and poverty spin."

White Paper on public health, 'Healthy Lives, Healthy People'

http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalas set/dh_127424.pdf

This paper includes information on changing social norms and default options so that healthier choices are easier for people to make. It states that there is significant scope to use approaches that harness the latest techniques of behavioural science to do this – nudging people in the right direction rather than banning or significantly restricting their choices. It cites the new Public Health Responsibility Deal as a vehicle for this.

Judging nudging: can nudging improve population health?

Theresa M Marteau, David Ogilvie, Martin Roland, Marc Suhrcke, Michael P Kelly, *BMJ*, 25 January 2011;342:d228

http://www.bmj.com/content/342/bmj.d228

Nudging has captured the imagination of the public, researchers, and policy makers as a way of changing human behaviour, with both the UK and US governments embracing it. The prospect of being able to nudge populations into changing their behaviour has generated great interest among policymakers worldwide, including the UK government.

Most people value their health yet persist in behaving in ways that undermine it. This can reflect a deliberate act by individuals who happen at different moments in time to value other things in life more highly than their health. It can also reflect a non-

deliberate act. This gap between values and behaviour can be understood by using a dual process model in which human behaviour is shaped by two systems.

The first is a reflective, goal oriented system driven by our values and intentions. It requires cognitive capacity or thinking space, which is limited. Many traditional approaches to health promotion depend on engaging this system. Often based on providing information, they are designed to alter beliefs and attitudes, motivate people with the prospect of future benefits, or help them develop self regulatory skills. At best, these approaches have been modestly effective in changing behaviour. The second is an automatic, affective system that requires little or no cognitive engagement, being driven by immediate feelings and triggered by our environments.

MINDSPACE: Influencing behaviour through public policy

Hardistry and Weber, 2009 http://www.instituteforgovernment.org.uk/publications/2/

Influencing people's behaviour is nothing new to Government, which has often used tools such as legislation, regulation or taxation to achieve desired policy outcomes. But many of the biggest policy challenges we are now facing – such as the increase in people with chronic health conditions – will only be resolved if we are successful in persuading people to change their behaviour, their lifestyles or their existing habits. Fortunately, over the last decade, our understanding of influences on behaviour has increased significantly and this points the way to new approaches and new solutions.

Governments often aims to change or shape behaviours. This can be done using 'hard' instruments e.g. legislation which is often costly and inappropriate or using incentives aimed at changing behaviour by 'changing minds'. The idea behind this is that people weigh up the costs and benefits. However, often people don't make rational decisions. It is better to change the context and shape policy around inbuilt responses to the world. The report lists nine non-coercive influences on behaviour.

Nudge type policy requires careful handling and the public need to give permission and help shape the tools used. Behaviour change is often seen as the government intruding into personal responsibility. However, they can supply the trigger to support people to make good decisions. New insights into behaviour change have improved policy outcomes at a lower cost if they are used alongside conventional policy tools. It is important to consider who is affected, what behaviour is intended and how change is accomplished.

Nudges and Cultural Variance: a Note on Selinger and Whyte Bovens,L.(2010) *Knowledge, Technology & Policy*, pp. 1-4. Article in Press. <u>http://www.scopus.com/record/display.url?eid=2-s2.0-</u> 77956554552&origin=reflist&sort=plf-f&cite=2-s2.0-79952123973&src=s&imp=t&sid=kbJ1nNoRXSzTEa bRN6NFOt%3a160&sot=cite& sdt=a&sl=0

Selinger and Whyte argue that Thaler and Sunstein are insufficiently sensitive to cultural variance in Nudge. I construct a taxonomy of the various roles that cultural variance may play in nudges. First, biases that are exploited in nudging may interact with features that are culturally specific. Second, cultures may be more or less

susceptible to certain biases. Third, cultures may resolve conflicting biases in different ways. And finally, nudge may be enlisted for different aims in different cultures.

Different cultures are subject to perceptual, cognitive and behavioural biases to different degrees.

Perceptual biases tend to be relatively resistant to cultural variance. I think that one would be hard-pressed to find cultures in which people were not subject to such perceptual biases. However, even such biases are not ubiquitous—cultural variance was found in many of the standard visual illusions (e.g. the Müller-Lyer Illusion) with non-Western cultures being less susceptible to some such illusions (Segall et al. 1966, p. 99–214).

Let us turn to an example of a cognitive bias. In Festinger's classical cognitive dissonance experiments (1957), subjects were asked about their attitudes (say, about certain moral issues). Subsequently, they were instructed to prepare and deliver a speech that ran counter to their attitudes. Some were paid smaller amounts and some were paid larger amounts for participating in the experiment. Finally, all were asked once again about where they stood on the issue after having delivered their speeches. It turned out that the ones who were paid less had changed their attitudes to a greater degree than those who were paid more. For the former, the small payment was not enough of a reason why they had engaged in a counterattitudinal speech-so they fabricated one, viz. these were simply the attitudes that they actually held. The latter did not need to change their attitudes-the large payment was a sufficient reason for them to hold a counter-attitudinal speech. There is an extensive literature on the degree to which the intensity of this phenomenon is subject to cultural variation. In cultures in which attitudes are less defining of one's self-identity (e.g. in Eastern cultures), counter attitudinal behaviour generates less dissonance and the phenomenon is less pronounced. For an overview and discussion of the literature, see Gawronski et al. (2008).

Behavioural biases are also prone to cultural variance. I was once told the following story to illustrate the difference between the English and the Irish. Suppose that an Englishman and an Irishman go to the races and win 1K in their respective currencies. Subsequently, they invest their gains into a new bet and they lose. Then the Englishman is depressed because he lost 1K where the Irishman is indifferent because he neither gained nor lost anything. The suggestion is that the Irish are less subject to the endowment effect than the English.

Resolving Conflicting Biases

Biases can conflict with one another, and there may be cultural variance in how a balance is struck. The clearest such cases involve conflicting behavioural biases. People are drawn in by desires for conformity as well as anti-conformity—i.e. the desire to stand out (Elster 1983, p. 23, 40, 67). Now, some cultures may stress the former at the expense of the latter and vice versa. The social advertisement pronouncing that a large percentage of people have chosen to be an organ donor (T&S, p. 180–2) may completely backfire in cultures that value non-conformity. And furthermore some cultures value conformity or anti-conformity within radically different contexts. In such matters, effective nudging will require a keen awareness of the culture in question.

The Aims of Nudge

One needs to be careful to distinguish cultural variance in the workings of nudging from the cultural variance in the aims for which nudges are enlisted. For example, we are clearly in need of T&S's Save More Tomorrow scheme (T&S, p. 112–7) in economies in the West, where saving rates for retirement are alarmingly low. But we would not need such a nudge in economies in the East in which the savings rate is too high, which may stand in the way of economic development. In such countries, we might use the very same behavioural bias and review retirement investments not 3 months before but rather 3 months after raises are being awarded, hoping that the endowment effect has taken hold and that they no longer want to part with their raises.

Reforming Development Economics With a Nudge: How Can the Policies Proposed by Behavioral Economics be Used to Improve International Development Policy?

Caroline Laroche, London School of Economics & Political Science (LSE) -Department of International Development, July 31, 2010 http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1888758

With the deadline for the achievement of the Millennium Development Goals coming up, innovations are urgently needed in the fight for global development; behavioural economics have been put forward as one such innovation. After providing the reader with background on the current state of behavioural economics, this paper discusses the justifications for the wider use of behavioural policies based on the ways in which poverty affects economic behaviour in the context of developing countries. After doing so, and building upon those findings, the authors evaluate different proposals for the wider inclusion of behaviour-based elements in development settings and establish what behavioural economics' key areas of relevance in shaping development policy are. The paper shows that those areas are centred around two institutional factors – missing commitment devices and lacking market integration – and two behavioural traits – high preference for current consumption and high loss and risk aversion. Finally, we shortly assess the potential of those policy proposals in being scaled up and reforming development policy.

4. To what extent has nudging been used? Case studies

'It Only Takes a Minute Girl': Insights in Women's Perceptions of Cervical Screening in Blackpool

M. Lyons, D. Neary, J. Harris, K. Jordan, J. MacIntosh, H. Carlin, C. leavey, Centre for Public Health, Liverpool John Moores University, August 2009 http://www.cph.org.uk/showPublication.aspx?publid=599

NHS Blackpool has decided to embark on a social marketing programme in an attempt to improve cervical screening rates, especially in the groups where coverage is known to be low. This includes testing of strap lines and nudges, preferably delivering positive messages and possibly with some humour for use by a wide variety of media.

The National Social Marketing Centre (NSMC), a strategic partnership between the Department of Health and Consumer Focus, present a series of international, evaluated case studies displaying social marketing techniques which have achieved real behavioural change in a health care setting (National Social Marketing Centre 2009). Each of these case studies meets the social marketing benchmark criteria and can thus be viewed as examples of best practice.

In one case study from New Zealand, with the strap line 'Don't just SAY they matter', cervical smear uptake among Pacific island and Maori women was significantly increased. The campaign was based on the finding that the women valued getting together with friends for food and to socialise. Health professionals worked with community leaders to initiate "Tupperware" like parties, where the women all brought some food and they sat, chatted and ate together at a friend's house. The female nurse then went to the house and set up to take smears in one of the bedrooms. Women then took turns to go in for their smears. There is no doubt that the success of this campaign revolved around not only the publicity and media, but also the willingness of professionals to completely revise the way they ran the service and go into women' s homes during evenings or weekends to take the smears.

'What's pants but can save your life' was the first cervical screening initiative in the UK to link social behaviour research with audience segmentation and data trends. It was aimed at 25-29 year old women in the West Midlands with particular emphasis on those who fail to attend screening during these years. By the end of the first quarter, there was a 16 percent increase in the target group and a 4 percent increase across all age groups (National Social Marketing Centre). A mixture of humour and the honest acknowledgement that having a cervical smear is 'pants' seemed to create the right message for these women.

Applying behavioural insight to health

Cabinet Office Behavioural Insights Team, December 2010 http://www.wmpho.org.uk/lfph/docs/403936_BehaviouralInsight_acc.pdf

Introduction

This sets out the importance of behaviour in policy making, the role of the Behavioural Insights Team in the Cabinet Office and how behavioural science insights can be applied to health using the MINDSPACE framework.

1 **Smoking:** drawing on commitment and incentive devices, we are launching a new smoking cessation trial with Boots.

2 **Organ donation:** we are introducing a trial of 'prompted choice' for organ donation, which we believe will significantly increase the number of donor registrations.

3 **Teenage pregnancy:** how teenagers who mentor toddlers are significantly less likely to become teen parents themselves.

4 **Alcohol:** Welsh universities will be trialling new methods to encourage students to drink less alcohol using social norm techniques.

5 **Diet and weight:** we will be establishing a partnership with LazyTown, the popular children's TV show, which will encourage healthier behaviour in children.

6 **Diabetes:** new devices are helping children to manage their conditions in ways that are practical and fun.

Food hygiene: how the new National Food Hygiene Rating Scheme will empower people to make better choices when it comes to the hygiene standards of food.

8 **Physical activity:** numerous innovative schemes have been set up, including the 'Step2Get' initiative in London, which incentivises pupils to walk to school.

9 **Social care:** we have established a partnership to develop a reciprocal time credit scheme to help catalyse peer-to-peer provision of social care.

Conclusion

These approaches show the effect that behavioural insights can have upon citizens' health and wellbeing. We must continue to grow and share our evidence base, evaluating new approaches as we go. In most cases, success will not come from a single 'silver bullet'. Instead it will come from a combined approach between many partners – local communities, professionals, businesses and citizens themselves.

A key objective of the coming years will be to try out behavioural approaches – to experiment at local level – to find the most effective ways of adjusting our lifestyles in ways that keep or put citizens in the driving seat and make it easy to live a happy and healthy life. The current state of our knowledge – about both health and behavioural science – gives us many powerful clues about what is likely to work, but there is a great deal that we do not know. In such cases, we must ensure we test new approaches in a robust way – preferably with randomised control trials and before and after measures – supported with evaluations that will help other areas learn the lessons. In recognition of this need, a new Policy Research Unit on Behaviour and Health was announced in the recent Public Health White Paper.

There is a great deal of energy and enthusiasm for the new health agenda. If we can combine the insights from behavioural science with this enthusiasm and professional expertise, the benefits are likely to be very substantial indeed – fewer lives lost, better value for money and better health.

Lobby watch: The Cabinet Office Behavioural Insights Team.

Cassidy J., *BMJ*, 2011;342:d1648 http://www.bmj.com/content/342/bmj.d1648

Media maladies: Nudging out the Nanny State

Dr Rosalind Stanwell-Smith, *Perspectives in Public Health* 2011 131: 149 http://rsh.sagepub.com/content/131/4/149.full.pdf+html

It can be hard to keep up with public health fashion. Just when we've managed to get everyone chanting the 'Five a Day' mantra whenever they see a stick of broccoli, it turns out that this is yesterday's thinking. The new idea, promoted by a unit in the Cabinet Office, is to create environments that help people choose what is best for themselves and society. Officially called the Behavioural Insight Team, they have been nicknamed the 'Nudge Unit' of the bestseller of one of their key advisers: the other author is advising on similar techniques in the White House. The unit is exploring the use of market incentives rather than regulations, for example in projects aimed at stopping smoking and food hygiene. Don't worry whether this means the Big Society is in or out: it's probably in, helping to forge a society of trustworthy citizens committed to wellbeing. But you must drop 'short termism' at once (as if public health people needed to be told that), because we now need to keep pace with the expansion of choice and nudge everyone towards the right long term choices. Promoting desirable social norms by appeals to egotism and peer pressure are central to the nudge philosophy.

Is nudge an effective public health strategy to tackle obesity? No http://www.bmj.com/content/342/bmj.d2177?tab=responses

Nudge smudge: UK Government misrepresents "nudge"

Chris Bonell, Martin McKee, Adam Fletcher, Andrew Haines, Paul Wilkinson, *The Lancet*, 17th January 2011

http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(11)60063-9/fulltext

The White Paper presents nudging as being in opposition to what is termed "Whitehall diktat", "nannying", and "banning", and as working in voluntary partnership with, rather than regulating, business. In his House of Commons speech, Health Secretary Andrew Lansley argued: "Rather than nannying people, we will nudge them by working with industry to make healthier lifestyles easier."

The UK Government is already putting this new approach into practice. It is reconsidering the ban on the display of tobacco products that was due to have taken effect in 2011 and is delaying detailed proposals for a ban on below-cost selling of alcohol (having already rejected the strong evidence-based option of minimum pricing). The government has established a new public-health advisory body dominated by the food and drink industry, with additional contributions from alcohol producers and operators of private gyms.

But the government has misrepresented the nudge approach. Although Thaler and Sunstein argue that nudging does not involve compelling or placing excessive economic pressure on individuals to change their behaviour, they do not pit nudging in opposition to the government using its formal powers to influence the behaviour of business. Their book presents its case mainly through examples of practical action, including legislation (e.g. enacting cap-and-trade systems to limit pollution) and regulation (e.g. requiring businesses to inform consumers about harms from cigarettes and pesticides).

Superficially, nudging seems to resonate with Marmot's review in its emphasis on environmental influences. However, whereas Marmot considers upstream factors such as poverty, neighbourhood deprivation, and over-reliance on fossil fuels, nudging focuses on downstream factors such as how individuals absorb information and perceive choices.

Politicians might have decided that bland platitudes plus references to fashionable concepts and some misrepresentation of their implications for policy might make for more effective containment than old-fashioned suppression ever could.

Sendhil Mullainathan: Solving social problems with a nudge TED Talks

http://www.ted.com/talks/sendhil_mullainathan.html

This Talk discussed behaviour change and how the first 999 miles of a solution are about science but the last mile is about people, their beliefs and behaviour change. Noone would say, "Hey, I think this medicine works, go ahead and use it." We have

testing, we go to the lab, we try it again, we have refinement. But you know what we do on the last mile? "Oh, this is a good idea. People will like this. Let's put it out there." The amount of resources we put in are disparate. We put billions of dollars into fuel-efficient technologies. How much are we putting into energy behavior change in a credible, systematic, testing way?

Now, I think that we're on the verge of something big. We're on the verge of a whole new social science. It's a social science that recognises -- much like science recognises the complexity of the body, biology recognises the complexity of the body -- we'll recognise the complexity of the human mind. The careful testing, retesting, design, are going to open up vistas of understanding, complexities, difficult things. And those vistas will both create new science, and fundamental change in the world as we see it, in the next hundred years.

What economics can (and can't) tell us, part 2: Getting the best deals Hannah Ryder, Senior Economist, DFID Blogs, Posted 4 August 2011 <u>http://blogs.dfid.gov.uk/2011/08/what-economics-can-and-can%E2%80%99t-tell-us-</u> part-2-getting-the-best-deals/

Economics has a lot to say about "best deals" – whether for individuals like me, businesses or entire countries. The framework it uses to analyse deals is "incentives".

Incentives – how people benefit or lose out from small changes in their or other people's behaviour – are at the very core of economics. It sounds nerdy, but incentives really do make the world go around. For instance, Paul Collier's Wars, Guns and Votes outlines how elections and other democratic institutions can create more problems than good if the incentives aren't right. Richard Thaler and Cass Sustein's influential book "nudge" focuses on creating and using small incentives to make big improvements to wellbeing. Sendhil Mullainathan did a videocast talk a couple of years ago applying these "nudge" incentives to climate change action.

Planned, motivated and habitual hygiene behaviour: an eleven country review

Valerie A. Curtis, Lisa O. Danquah, and Robert V. Aunger Health Education Resources, 2009 August; 24(4): 655–673. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2706491/

Handwashing with soap (HWWS) may be one of the most cost-effective means of preventing infection in developing countries. However, HWWS is rare in these settings. We reviewed the results of formative research studies from 11 countries so as to understand the planned, motivated and habitual factors involved in HWWS. On average, only 17% of child caretakers HWWS after the toilet. Handwash 'habits' were generally not inculcated at an early age. Key 'motivations' for handwashing were disgust, nurture, comfort and affiliation. Fear of disease generally did not motivate handwashing, except transiently in the case of epidemics such as cholera. 'Plans' involving handwashing included to improve family health and to teach children good manners. Environmental barriers were few as soap was available in almost every household, as was water. Because much handwashing is habitual, self-report of the factors determining it is unreliable. Candidate strategies for promoting HWWS include creating social norms, highlighting disgust of dirty hands and teaching children HWWS as good manners. Dividing the factors that determine

health-related behaviour into planned, motivated and habitual categories provides a simple, but comprehensive conceptual model. The habitual aspects of many health-relevant behaviours require further study.

From mindless eating to mindlessly eating better Wansink B., Physiology and Behavior; 2010; 100: 454-63. http://www.ncbi.nlm.nih.gov/pubmed/20470810

Plate shapes and package sizes, lighting and layout, color and convenience: these are a few of hidden persuaders that can contribute to how much food a person eats. This review first posits that these environmental factors influence eating because they increase consumption norms and decrease consumption monitoring. Second, it suggests that simply increasing awareness and offering nutrition education will be disappointingly ineffective in changing mindless eating. Third, promising pilot results from the National Mindless Eating Challenge provide insights into helping move from mindless eating to mindlessly eating better.

Cue based decision making: A new framework for understanding the uninvolved food consumer

Hamlin RP., Appetite, 2010; 55:89-98. http://www.ncbi.nlm.nih.gov/pubmed/20420871

This article examines the processes that occur within the consumer's head as they make a choice between alternative market offers at a low level of involvement. It discusses recent research that indicates that the Theory of Planned Behaviour and its derivatives have restricted validity as a predictor of food consumers' evaluations and purchase patterns. This has significant implications as Planned Behaviour is the dominant paradigm within food industry research. The article demonstrates that Planned Behaviour has acquired this status more by default than by proven merit. The specific reasons for the failure of Planned Behaviour are discussed. An alternative paradigm, Cue-Based Decision Making is developed from an existing literature, and is proposed as a basis for increasing our understanding of the uninvolved food consumer in order to predict and influence their behaviour.

The alternative Cue-Based Decision Making model proposed here contains no radically new components. The major innovation that distinguishes it from earlier models is the concept that multiple cues can also act as an input to create the temporary structure of a low involvement evaluation that is driven by otherwise amorphous information. However, this is also consistent with, and is a development of, core brand theory. Like any other theoretical innovation, it is untested by peer research, but even in this state it addresses many of the easily observed contradictions and inconsistencies that the application of Theory of Planned Behaviour to low involvement decision situations creates. It also possesses the main requirement of any scientific paradigm. It is testable, and it is capable of further development by such testing.

A well-timed nudge: Enabling farmers to prepay for fertiliser when they had cash on hand was effective in promoting fertiliser adoption.

J-PAL affiliates Esther Duflo (MIT), Michael Kremer (Harvard University), and Jonathan Robinson (UC Santa Cruz) j-pal policy briefcase, October 2011 http://www.povertyactionlab.org/publication/well-timed-nudge 'Farmers in western Kenya were offered the chance to pre-purchase fertiliser right after the harvest, when they had cash on hand. This programme significantly increased fertiliser adoption, and its effect was not statistically different from that of a more expensive 50-percent subsidy just before fertiliser application time. A small "nudge" helped some farmers make an investment they wanted to make, but otherwise could not carry out due to difficulty saving money.'

A Nudge in the Right Direction

Ethan Geiling and Stephanie Halligan http://cfed.org/blog/inclusiveeconomy/a nudge in the right direction/

Saving money isn't always easy – especially for low-income families. But with the right support, encouragement and a few behavioral "nudges," savings programmes can help combat those inherent biases and guide savers in the right direction.

Keep on nudging: Making the most of auto-enrolment

Standard Life http://www.standardlife.com/static/docs/2011/reports/keep_on_nudging.pdf

Auto-enrolment was designed using behavioural economics to 'nudge' people into savings. This report looks for practical solutions to two fundamental questions:

- How can we communicate the new workplace pensions to achieve the highest possible retention of savers?
- How can we encourage people to save more than the minimum contribution?

Push, Pull, Nudge

OFWAT http://www.ofwat.gov.uk/publications/focusreports/prs_inf_pushpullnudge.pdf

Nudge is about understanding consumer behaviour and using it to promote change. It draws on best practice in advertising and marketing to encourage consumers to change their water-using habits. It is something that Government, the regulators and those providing services to consumers can all use.

We should not rely on price signals alone. Consumers can be nudged towards more sustainable water use. With better information and more helpful feedback, consumers should make better decisions.

Twixtmas – a chance to nudge mass 'binge doing' for charity or voluntary work http://conversation.cipr.co.uk/posts/andy.green/twixtmas--a-chance-to-nudge-massbinge-doing-for-charity-or-voluntary-work

Instead of binge shopping, or binge drinking, the campaign is trying to nudge people into 'binge thinking and doing' by overcoming the problem of 'time poverty' – where people avoid doing good deeds because they do not have enough time.

Nudging people towards desired behaviors with choice architecture <u>http://microlinks.kdid.org/learning-marketplace/blogs/nudging-people-towards-</u> desired-behaviors-choice-architecture

Sebstad suggested that one possible experiment in integrating choice architecture into upgrading a project may involve setting up bank accounts that receive agriculture payments as joint accounts by default and letting either spouse opt out if they prefer. Some of the other system changes that the presenters mentioned as important for upgrading included:

- electronic savings systems,
- mobile payment systems like Kenya's famed M-Pesa,
- increased involvement of women in agriculture input supply,
- inclusion of hired labor (which is especially important to women smallholders) in training and extension, and
- promotion of women's access to farmers groups.

Behavior Change Perspectives on Gender and Value Chain Development

http://microlinks.kdid.org/events/breakfast-seminars/behavior-change-perspectivesgender-and-value-chain-development

Their field research, which was done in Ghana (citrus) and Kenya (sweet potato), showed that behaviors that affect upgrading are: money management, business practices, and value chain relationships. Manfre and Sebstad highlighted various types of vertical and horizontal relationships; why they are important; and implications for value chain programming. Specifically, trust and social capital were highlighted. They also discussed factors that support or impede behavior change, such as desire, incentives, and know-how to change. Some of the ways to nudge people to better practices include electronic savings, systems of payment, and financial capabilities to improve money management. The speakers closed by sharing lessons about behavior change and possible future use of the framework presented.

5. Has/will it improved human development outcomes?

Experts caution against rush to embrace 'nudge' theory in health White Paper LSHTM, Tuesday, 25 January 2011 http://www.lshtm.ac.uk/pressoffice/press_releases/2011/nudginghealth.html

The Government should not rush to embrace the idea of 'nudging' people to adopt healthier behaviour, as there is no evidence to suggest it is an effective strategy. They claim that it is a confused and ill-defined concept which many not offer anything new in terms of improving people's health behaviour. The LSHTM team argues that we shouldn't rush into doing lots of new research on nudges unless we're confident that it offers something new. But this is far from clear because like nudges most existing public health isn't coercive (and where it is, like the smoking ban, this is usually to prevent harm to third parties) and goes beyond the facts to influence how choices are presented (for example using techniques like social marketing, motivational interviewing and peer education).

They point out that many of the examples in Thaler and Sunstein's book don't fit with their own definition - for example a programme paying a 'dollar a day' to teenage mothers contingent on their having no further pregnancies would exert major pressure on young women in poverty, contradicting their definition of nudges as not exerting such pressures.

Lead author Chris Bonell comments: 'The notion of nudging adds nothing to existing approaches. Public health policies should be based on the best available evidence, but the Government has shown a worrying tendency to undermine the collection of such evidence, for example by stopping the National Institute for Health and Clinical Excellence from undertaking appraisals of several strategies to improve public health. 'Nudge' contains some eye-catching ideas, but little progress will be made if public health policy is made largely on the basis of ideology and ill-defined notions that fail to deal with the range of barriers to healthy living'.

Media maladies: Nudging out the Nanny State

Dr Rosalind Stanwell-Smith, *Perspectives in Public Health* 2011 131: 149 http://rsh.sagepub.com/content/131/4/149.full.pdf+html

Launched last summer, the nudge unit has recently run into criticism, including a report from the National Audit Office that said the unit's ideas had not yet been taken up by any Whitehall department. Critics are wary of the use of marketing techniques, such as using social networks to spread 'healthy' messages; also the lack of a strong evidence base and the inherent contradiction in the nudge philosophy of 'libertarian paternalism': free choice, so long as you make the one decided by authority. One of the unit's ideas is to encourage employers to promote healthy messages in the workplace, for example, not taking jam roly poly off the canteen menu, but listing calorie contents on all the options. Any one who has ever tried to diet will be puzzled why a unit, costing over £500,000 a year, was needed to think of this strategy.

'It Only Takes a Minute Girl': Insights in Women's Perceptions of Cervical Screening in Blackpool

M. Lyons, D. Neary, J. Harris, K. Jordan, J. MacIntosh, H. Carlin, C. leavey, Centre for Public Health, Liverpool John Moores University, August 2009 http://www.cph.org.uk/showPublication.aspx?pubid=599

Health beliefs are important determinants of behaviour. Essentially people only change their behaviour because they believe that in some way or other it will create a benefit either for themselves or their family. Reference to various models can help unpick the stages that people go through prior to changing their behaviour, and help to identify what services can do and where they can effectively intervene to help people move towards the "desired" behaviour.

Some more recent research has built on the older theories and created more useable guidelines or principles.

American economists Richard Thaler and Cass Sunstein have developed "nudge" theory based on a libertarian paternalist approach (Thaler and Sunstein, 2009). According to this theory, people will change their behaviour incrementally if they are given small nudges in the 'right' direction. These nudges may simply be a question posed by a health professional or a poster providing some positive facts. Both approaches suggest that changing community norms is important, so for example instead of highlighting that coverage data suggest that 25 percent of eligible women in Blackpool do not go for a smear, turn this around and reinforce the fact that 75

percent do go for a smear. Both resonate well with government policy expressed in the White Paper "Choosing health: making healthy choices easier" (2004). According to the literature, lack of knowledge and fear are the main factors which affect participation in screening including:

- lack of knowledge of cervical cancer and risk factors
- fear of embarrassment and / or pain
- lack of understanding of the screening procedure
- low level of awareness of the benefits of screening

Other more practical issues also play a part and can include:

- never received the invitation (Neilson & Jones, 2001)
- inaccuracy of target list
- style of letter, illiteracy, poor English skills (Neilson & Jones, 2001)
- unsuitability for screening, e.g. previous hysterectomy (Neilson & Jones, 2001)
- experience from previous testing as reason for non-attendance, e.g. dislike of a male doctor (Neilson & Jones, 2001)
- an assumption of sexual surveillance which suggests that cervical screening may be viewed as a method of monitoring the sexual activity of women (Bush 2000)

Tom Coates (University of California, USA) has pulled together ideas from a wide variety of theories and suggested that there are a few basic factors that are needed to support and sustain behaviour change. These can be used as a checklist to ensure that campaigns maximise the potential for success.

- information regarding the need to change
- motivation to change behaviour
- skills to initiate and sustain new behaviour
- technical skills
- social skills
- feeling that change is possible
- supportive changes in community norms
- policy structure changes to support educational efforts and behaviour changes

In their review of social marketing campaigns Stead and colleagues (2009) found a number of key points that characterised successful social marketing initiatives that can be used as a checklist to ensure best practice:

- 1. Changing attitudes, behaviour and policy requires a long-term commitment with long-lasting organisational and financial support.
- 2. Many social and public health issues are a challenge for society as a whole, not just a group of individuals. Adopting a perspective that facilitates policy change as well as individual behaviour change encourages broad ownership of a problem and collective responsibility for tackling it.
- 3. Reframing a problem can be effective. For example, the ban on smoking in public places was achieved because the problem moved away from 'victim blaming' towards a public health issue the protection of workers.
- 4. Offerings showing humour, empathy and positive messages can engage people's emotions as effectively as fear-based messages.

- 5. They often involve multiple approaches including upstream changes to policy and services as well as awareness-raising, education, legislation and continued support for behaviour change.
- 6. Changing behaviour often means changing social norms because changing the way the public sees a problem can increase buy-in and encourages greater self reflection.
- 7. They are built on understanding the target group's attitudes, values and needs.
- 8. They analyse and address the "competition" to the desired behaviour or policy change.

Nudge smudge: UK Government misrepresents "nudge"

Chris Bonell, Martin McKee, Adam Fletcher, Andrew Haines, Paul Wilkinson, *The Lancet*, 17th January 2011

http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(11)60063-9/fulltext

This paper argues that the government has misrepresented nudging as being in opposition to their use of regulation and legislation to promote health, and that this misrepresentation serves to obscure the government's failure to propose realistic actions to address the upstream socioeconomic and environmental determinants of disease.

Nudging largely ignores the socioeconomic determinants of behaviour. Rather than combating poverty and injustice, nudgers can only hope to compensate by nudging people who are poor more vigorously. But how can one nudge away the poor life-chances of children living in poverty, the societal harms arising from income inequality, or the obesogenic effects of the excessive use of fossil fuels? How could nudges have combated cholera from poor hygiene in the 19th century or respiratory disease from pollution in the 20th century?

One nudge forward, two steps back: Why nudging might make for muddled public health and wasted resources

Bonell, C, McKee, M, Fletcher, A, Wilkinson, P and Haines, A, *BMJ* 2011, Published 25 January 2011

http://www.bmj.com/content/342/bmj.d401

Despite the fanfares with which nudging has been presented in the recent public health white paper *Healthy Lives, Healthy People*, these ideas are far from new. In terms of public health science, the notion of nudging adds nothing to existing approaches. Public health policies should be based on the best available evidence, but the government has shown a worrying tendency to undermine the collection of such evidence—for example, by stopping the National Institute for Health and Clinical Excellence from undertaking appraisals of several strategies to improve public health. *Nudge* contains some eye catching ideas, but little progress will be made if public health policy is made largely on the basis of ideology and ill defined notions that fail to deal with the range of barriers to healthy living.

Is nudge an effective public health strategy to tackle obesity? No http://www.bmj.com/content/342/bmj.d2177

Adam Oliver (doi:10.1136/bmj.d2168) maintains that nudges may help people to make healthier choices, but Geof Rayner and Tim Lang worry that government proposals are little more than publicly endorsed marketing

Over the past decade a common picture on the aetiology of obesity has become largely agreed. After years of competing analyses, most people now accept that obesity is the result of a complex multifactoral interplay. It is not either food intake or physical activity but both. It is not just food oversupply or pricing or domestic culture or food marketing or poor consumer choice or genetic potential. In fact, it is all of these and more. At last, scientific advisers have accepted that they have an analysis to share with politicians and can begin the tortuous process of crafting frameworks for action.

So why is the British government quietly breaking with this consensus and putting so much weight behind nudge thinking?

Is nudge an effective public health strategy to tackle obesity? Yes http://www.bmj.com/content/342/bmj.d2168

Adam Oliver maintains that nudges may help people to make healthier choices, but Geof Rayner and Tim Lang (doi:10.1136/bmj.d2177) worry that government proposals are little more than publicly endorsed marketing.

The "nudge" or, more formally, libertarian paternalist agenda has captured the imagination of at least some of the British policy elite, epitomised by the creation of the Cabinet Office's behavioural insights team (the so called nudge unit). The reason for the political popularity of nudging is obvious: it offers politicians a tool by which they can offer guidance, without enforcement, on individual behaviour change that is good for and, on reflection, preferred by, individuals themselves. Various nudge policies have been proposed to tackle obesity.

The essence of the approach is to apply behavioural economic insights (for example, loss aversion—that losses tend to "hurt" more than gains of the same size) to policy considerations so as to change the choice architecture.

Building grass roots capacity to tackle childhood obesity

Sim, F., Ahmad, R., 2011, *Perspectives in Public Health* 131 (4), pp. 165-169 <u>http://www.scopus.com/record/display.url?eid=2-s2.0-</u> 79961133366&origin=resultslist&sort=plf-f&cite=2-s2.0-79952123973&src=s&imp=t&sid=kbJ1nNoRXSzTEa_bRN6NFOt%3a160&sot=cite& sdt=a&sl=0&relpos=2&relpos=2&searchTerm=

The programme, based on best available evidence and clear evidence of needs, provides a low-cost evaluated intervention that permits people from diverse professional and occupational backgrounds to acquire the knowledge, skills and confidence needed to raise the subject of healthy and unhealthy weight with parents of primary school-aged children.

Nudge or Fudge

Jacqui Wise, BMJ 2011; 342, Published 27 January 2011 http://www.bmj.com/content/342/bmj.d580 Nudging the general population into healthier lifestyles does have a role to play but should not be the sole approach that the government uses to tackle health inequalities, public health and social care experts agreed.

Changing health-risk behaviours: a review of theory and evidence-based interventions in health psychology

Adriana BĂBAN, Catrinel CRĂCIUN, Babeş-Bolyai University, Cluj-Napoca, Romania, Vol VII, No. 1, 2007

http://jcbp.psychotherapy.ro/vol7no1/changing-health-risk-behaviors-a-review-oftheory-and-evidence-based-interventions-in-health-psychology/

Changing health-risk behaviour has been shown to decrease morbidity and mortality and enhance quality of life. The present review aims to describe the models and theories that underpin effective interventions and the empirical studies that warrant their successful use with specific health risk-behaviours. Motivational, behavioural enactment and multi-stage models are critically discussed in the context of identifying the ingredients that help translate theories into practice by designing effective behaviour change interventions. Future research directions are outlined for continuing the development of a theory and evidence based practice in health psychology and its integration with evidence-based theory and practice of cognitivebehavioural psychotherapies, as both are focused on behavioural change.

6. How has its impact been measured?

One nudge forward, two steps back: Why nudging might make for muddled public health and wasted resources

Bonell, C, McKee, M, Fletcher, A, Wilkinson, P and Haines, A, *BMJ* 2011, Published 25 January 2011

http://www.bmj.com/content/342/bmj.d401

This article considers the vagueness with which the term nudge has been used, its limited evidence base, and its potential for harm. They call for new primary research and systematic reviews to examine the effectiveness of public health nudges.

Discounting future green: money versus the environment.

David J. Hardisty and Elke U. Weber, *Journal of Experimental Psychology* 138(3): 329-340, 2009

http://www.apa.org/pubs/journals/releases/xge1383329.pdf

In 3 studies, participants made choices between hypothetical financial, environmental, and health gains and losses that took effect either immediately or with a delay of 1 or 10 years. In all 3 domains, choices indicated that gains were discounted more than losses. There were no significant differences in the discounting of monetary and environmental outcomes, but health gains were discounted more and health losses were discounted less than gains or losses in the other 2 domains. Correlations between implicit discount rates for these different choices suggest that discount rates are influenced more by the valence of outcomes (gains vs. losses) than by domain (money, environment, or health). Overall, results indicate that when controlling as many factors as possible, at short to medium delays, environmental outcomes are discounted in a similar way to financial outcomes, which is good news for researchers and policy makers alike.

Is There a Right Way to Nudge? The Practice and Ethics of Choice Architecture Selinger, E., Whyte, K. , 2011, *Sociology Compass* 5 (10) , pp. 923-935 <u>http://onlinelibrary.wiley.com/doi/10.1111/j.1751-9020.2011.00413.x/abstract</u>

Cass Sunstein and Richard Thaler's Nudge: Improving Decisions about Health, Wealth, and Happiness presents an influential account of why 'choice architecture' should be used to 'nudge' people into making better decisions than they would otherwise make. In this essay we: (1) explain the main concepts that Thaler and Sunstein rely upon to defend their project; (2) clarify the main conceptual problems that have arisen in discussions about nudges; (3) clarify practical difficulties that can arise during nudge practice; (4) review the main ethical and political objections that have been raised against nudging; and (5) clarify why issues related to meaning can pose methodological problems for creating effective choice architecture.

BMJ Poll

http://www.bmj.com/about-bmj/poll-archive

The British Medical Journal polled readers as to whether 'nudge' could effectively tackle obesity: 66% said no.

BMJ Comments

http://www.bmj.com/content/342/bmj.d401?tab=responses

The pattern of consumer purchases.

Ehrenberg ASC., Applied Statistics, 1959; 8(1):26-41. http://www.jstor.org/stable/pdfplus/2985810.pdf?acceptTC=true

An early article on human behaviour

The New Paternalism – Unravelling 'Nudge'

Glen Whitman, Economic Affairs, 2011 http://onlinelibrary.wiley.com/doi/10.1111/j.1468-0270.2011.02115_3.x/pdf

For many years, people have been telling other people what is good for them – and manipulating or forcing them to do it. Today the 'new paternalism' seeks to make people better off *by their own standards*.

New paternalism has many names, and arose from behavioural economics, which studies how people deviate from the pure rationality of mainstream economics. Real people have cognitive biases, including lack of self-control, excessive optimism, status quo bias, and susceptibility to framing of decisions. The new paternalism is informing policy in Downing Street which has a 'nudge' unit to try to find subtle ways of changing our behaviours in ways government feels are best for us. The proposals of the new paternalism might seem modest. But, if you dig deeper, you will find a wide-ranging policy agenda at work. In articles by the main academics working in the field, you will find policy proposals from mild to downright intrusive. New paternalists present their position as the reasonable middle ground between rigid anti-

paternalism and intrusive 'hard' paternalism. However, it carries a risk of placing us on a slippery slope from soft paternalism to hard. The slippery slope risk must be counted among the relevant costs of new paternalist policies.

Real people are susceptible to cognitive biases that can lead to poor decisions. But no one is immune to bias. The same cognitive defects that they wish to correct by 'nudging' also exist amongst politicians. I recommend a slope-resisting framework – one that stresses private options and opportunities for self-correction. That doesn't mean we will never adopt any new paternalist policies but we will hopefully stand a better chance of not slipping down the slope.

Nudging Gender Bias in the Workplace

Harvard Kennedy School http://www.hks.harvard.edu/news-events/publications/impactnewsletter/archives/summer-2011/nudging-gender-bias-in-the-workplace

Organising a group of "evaluators" and "candidates" at the Harvard Decision Science Laboratory, the authors conducted their study to determine whether gender bias exists in the evaluation of professional candidates. They found that when assessing candidates individually, the interviewers were much more likely to base their decisions on a candidate's gender. Male candidates were preferred for mathematical tasks, while female candidates were preferred for verbal tasks, regardless of how the candidate had performed in the past. However, when a man and a woman were evaluated at the same time, the interviewers were more concerned with their past performance than with their gender.

Joint evaluation undercuts the tendency toward gender bias. This gender-equality nudge is "successful in making employers choose based on ability, irrespective of the gender of the candidate and the implicit stereotypes that the employer may hold," the authors write. The study also offers insights into why employers tend to react differently when evaluating candidates jointly or separately. In joint evaluation, they propose, the employer has more data to update his or her stereotypical beliefs about the sex a candidate belongs to. More important, the authors contend, "is that employers may decide differently in joint than in separate evaluation because they switch from a more intuitive evaluation mode based on heuristics in separate evaluation to a more reasoned mode when comparing alternatives in joint evaluation."

Nudge No More: Benevolent meddling won't help us make good decisions. Henry Farrell and Cosma Shalizi, Saturday, Nov. 12, 2011 <u>http://www.slate.com/articles/health and science/new scientist/2011/11/does nudg</u> e policy work a critique of sunstein and thaler .html

Libertarian paternalists are often wrong on the underlying social science. For example, Thaler and Sunstein's claims about the benefits of opt-out schemes are belied by little evidence it increases donations. According to Kieran Healy, a sociologist at Duke University differences in donation rates are better explained by differences in organisational effectiveness than differences in opt-in/opt-out. It is not clear that opt-out would increase donations; unsexy but crucial reforms to regional schemes would almost certainly work better.

This points to the key problem with "nudge"-style paternalism: presuming that technocrats understand what ordinary people want better than the people themselves. There is no reason to think technocrats know better, especially since Thaler and Sunstein offer no means for ordinary people to comment on, let alone correct, the technocrats' prescriptions. This leaves the technocrats with no systematic way of detecting their own errors, correcting them, or learning from them. And technocracy is bound to blunder, especially when it is not democratically accountable.

As political scientist Suzanne Mettler of Cornell University argues, libertarian paternalism treats people as consumers rather than citizens. It either fails to tell people why choices are set up in particular ways or actively seeks to conceal the rationale. When, for example, Obama's administration temporarily cut taxes to stimulate the economy, it did so semi-surreptitiously to encourage people to spend rather than save.

Mettler uses experiments to show how ordinary people can understand complicated policy questions and reach considered conclusions, as long as they get enough information. This suggests a far stronger role for democratic decision-making than libertarian paternalism allows. People should be given information, and allowed to reach conclusions about their own interests, and how to structure choices to protect those interests. By all means consult experts, but the dialogue should go both ways. Results from agent-based modeling, evolutionary theory, network theory, and experiments in group decision-making also support Mettler. Take the "diversity trumps ability" theorem of Scott E. Page, from the University of Michigan: Groups of agents with diverse understandings of the world will solve difficult problems better than narrowly focused groups with higher expertise.

And models of evolutionary search, starting with the "genetic algorithms" of John Holland, also at Michigan, suggest higher diversity per se makes it easier to find paths to new fitness peaks. Research into the sociology of networks also finds innovation is most likely at points where different views intersect.

All this suggests democratic arrangements, which foster diversity, are better at solving problems than technocratic ones. Libertarian paternalism is seductive because democratic politics is a cumbersome and messy business. Even so, democracy is far better than even the best-intentioned technocracy at discovering people's real interests and how to advance them. It is also, obviously, better at defending those interests when bureaucrats do not mean well.

While democratic institutions need reform to build in dialogue between citizens and experts, they should not be bypassed. By cutting dialogue and diversity for concealed and unaccountable decision-making, "nudge" politics attacks democracy's core. We should not give in to temptation—and save our benevolent meddling for family reunions.

Julia Neuberger: 'A nudge in the right direction won't run the big society' The Observer, Sunday 17 July 2011 <u>http://www.guardian.co.uk/society/2011/jul/17/julia-neuberger-nudge-big-society</u> http://www.bbc.co.uk/news/health-14186806 The problem, as Neuberger saw it, was that there was "precious little" evidence to show that nudge worked beyond a purely individual basis. So the Lords set up a subgroup of its respected science and technology committee to examine the issues. After 12 months of research, 148 written submissions and evidence from 70 witnesses, the report will be published on Tuesday. It will make uncomfortable reading for Cameron because, according to Neuberger, nudging people is not normally enough.

"Basically you need more than just nudge," she says, when we meet in the Lords. "Behavioural change interventions appear to work best when they're part of a package of regulation and fiscal measures," she adds, putting down her papers and a large canvas bag from Daunt Books in Hampstead. She notices me looking at the bag. "I use it for everything! I don't like briefcases."

The difficulty with nudge theory, she says, is that "all politicians love quick fixes. I mean, they look at very short time frames. I think one of the problems with all of this is if you really want to change people's behaviour it takes a very long time ... you have to look at a 20- to 25-year span before you get a full change of behaviour."

As an example, Neuberger points to the efforts to persuade people to wear seat belts in the 1970s, which incorporated an advertising campaign and legislation. "So it was a whole series of measures that did eventually change the climate." Later, she adds: "I think politicians would be well advised to use these sorts of behavioural interventions as part of an armoury."

Nudge, think or shove? Shifting values and attitudes towards sustainability A briefing for sustainable development practitioners, November 2010 http://www.involve.org.uk/wp-content/uploads/2011/03/Nudge-think-or-shove.pdf

Pursuing sustainability requires widespread shifts in public behaviour. This briefing builds on a recent House of Lords round table to consider three broad approaches to influencing public behaviour: 'nudge', 'think' and 'shove'. The authors consider the benefits and drawbacks of each, and explore how the three approaches can complement one another.

The findings are:

• 'Nudge' is effective for specific, limited shifts in behaviour such as recycling.

• 'Think' is effective at building support and legitimacy for the big, transformational changes that we need in society, such as decarbonising the economy. 'Think' can be particularly powerful in building people's ability and motivation to participate in and drive those transformational changes.

• 'Shove' often helps to create the conditions under which 'nudge' is most effective.

Building on these insights, the authors start to sketch out an optimal mix of 'nudge', 'think' and 'shove', which uses the best of all three approaches to transform social values and attitudes towards sustainability at the pace needed.

Nudging farmers to use Fertilizer: Evidence from Kenya

Duflo, E., M. Kremer and J. Robinson, American Economic Review, 2010

http://cega.berkeley.edu/projects/nudging-farmers-use-fertilizer-experimentalevidence-kenya/

Overall, the results suggest that offering farmers small, time-limited discounts on fertilizer may substantially increase usage without inducing overuse among farmers who are already using fertilizer, at relatively low cost.

Nudging Boserup? The impact of fertilizer subsidies on investment in soil and water conservation

Godwin K. Vondolia, June 2011 http://gupea.ub.gu.se/bitstream/2077/25683/1/gupea_2077_25683_1.pdf

The study evaluates the extent to which fertilizer subsidies nudge soil and water conservation efforts among smallholders in Ghana.

The Nudge Blog

http://nudges.org/tag/charity/

The Nudge blog is the online companion to Richard Thaler and Cass Sunstein's "Nudge: Improving Decisions About Health, Wealth, and Happiness." Here you'll find much more about nudging, choice architecture, libertarian paternalism, and many other terms you won't read about in standard economics books.

Dan Ariely's Blog

http://danariely.com/

A behavioural economics blog.

7. Additional information

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