Personal Responsibility and Changing Behaviour: the state of knowledge and its implications for public policy

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Note: This is an issue paper for discussion purposes and does not represent Government policy
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Executive Summary

The public wants government to achieve various goals: a strong economy, better education, security, health and so on. To achieve these, governments employ many tools, including laws, punishments and regulations, taxes and subsidies, the provision of public services, and information and persuasion. Many of these tools are designed to influence changes in public behaviour. In some areas they work well. However, in others their effectiveness is limited. As a result policy-makers have sought out more sophisticated means of building more effective relationships between citizens and government which can influence public behaviour, particularly with a view to increasing personal responsibility in areas like health and welfare, and encouraging greater partnership between users of services and service providers (‘co-production’).

Within the Strategy Unit a number of recent projects have looked at different aspects of this issue, including reviews on alcohol, drugs, correctional services, disability, waste and energy. New insights on behaviour change and personal responsibility are also critically important to other areas of evolving government policy – including public health, welfare reform, pensions and climate change.

Nearly all public policies rest on assumptions about human behaviour. However, these are rarely made explicit, or tested against the available evidence. This paper seeks to bring together some of the available knowledge in order to stimulate more imaginative thinking about how policies could be designed in the future.

The introduction reviews the three key factors that have encouraged the growing interest in personal responsibility, and considers how policymakers might think about the division of responsibilities between state and individual:

1. **The achievement of major policy outcomes, requires greater engagement and participation from citizens – ‘governments can’t do it alone’ – than traditional ways of delivering public services.** Higher levels of spending and better-run public services can achieve improved outcomes. But in the long-run improvements depend as much on changes in personal behaviour: for example in health on better diet and more exercise, and in education on children’s willingness to learn and parents’ willingness to help.

2. **There are strong moral and political arguments for protecting and enhancing personal responsibility.** Most of the dominant traditions of social and political thought in the UK value individuals’ and communities’ ability to take control and act in their own best interests as goods in themselves. Other things being equal, they see it as better for governments to empower citizens as much as possible rather than making decisions on their behalf.

3. **Behaviourally-based interventions can be significantly more cost-effective than traditional service delivery.** There is good evidence across a range of policy areas – for example in health, education, crime – of the cost-effectiveness of behavioural interventions (for example a change in diet that avoids a heart attack is better and cheaper than dealing with the consequences of poor diet with heart surgery).
The second section of the paper (‘Theories of behavioural change’) reviews the growing body of knowledge about alternative, and perhaps more subtle, ways in which government might affect personal behaviour. It introduces a number of these different models, which are based on empirical observation of how people really behave in different situations (as opposed to theoretical assumptions about how they might respond to such things as economic incentives). For example, people’s choices are strongly influenced by various forms of ‘psychological discounting’: future gains may count much less than immediate gains, ‘peak’ and ‘variable’ experiences may have much larger impacts than constant experiences, and losses can have a much larger impact than similar-sized gains.

The third section (‘From theory to application’) considers how these insights might be applied to the areas of welfare to work, health, crime and education. In a number of these areas, it is argued that the use of conditionality or ‘compacts’ already harness some of these psychological influences, such as ‘commitment’ and the desire to be ‘consistent’ with a promise. Further applications at the individual, interpersonal and community level are then considered. One common theme is the potential effectiveness of seeking behavioural change not only through a focus on individual persuasion, but through an ‘ecological approach’. An ecological approach is one that focuses on changing the behaviour of significant figures around the individual – such as parents and peers – to make gradual changes to wider social norms. Consideration is given to how government acting as a more effective ‘persuader’ can be squared with an agenda of enhanced personal responsibility – helping people to help themselves. The critical role of non-government, voluntary and self-help organisations, and the limits of top-down policies to change behaviour, are highlighted.

Finally, a number of challenges to the approach are considered. These include: public acceptability; the limits to conditionality; personalisation and cultural sensitivity; the efficacy of interventions; the risk of poorly-designed interventions increasing inequality; and the relationship to collective responsibility. In some cases, the application of alternative approaches might allow government to relax more punitive and rigid regulatory approaches to behaviour change.

In conclusion, the paper concludes that the efficacy of government policy may be significantly enhanced, and public behaviour positively influenced, by the application of more sophisticated approaches to support individuals and communities in changing behaviours. To be effective and acceptable, such approaches need to be built around co-production and a sense of partnership between state, individuals and communities.
1. Introduction

Almost all of us have occasionally dropped a piece of litter. At the same time, most of us would prefer to live in clean, litter-free environment. So what should the policy response be? A range of options are open. Governments could greatly increase the fines for littering. They could make it a high police priority, perhaps funding large numbers of neighbourhood wardens and CCTVs to catch offenders. Governments could use economic instruments: introducing taxes on wrapping, cans and bottles, perhaps subsidising recycling of all such disposable materials to ensure that our streets were picked clean by companies and individuals responding to market forces. Governments could pursue a strategy of persuasion: advertising campaigns, road-shows, and the issue of littering as part of citizenship education – while perhaps also increasing the number of litter bins. Or Governments could just pay for the streets to be swept more often.

The ideal is to reach a position where there is no need for public expenditure on littering – either through street sweeping or enforcement – because people simply do not drop litter. To get to this point may require considerable behavioural change, but the eventual aim is to entrench a habit of personal responsibility and restraint, and a self-sustaining social norm.

Behaviour change often – if not always - lies at the heart of complex policy issues. Just as in the apparently simple example of littering, there are generally many possible policy levers that could be applied – at least in principle. A range of factors suggest that a greater focus on behaviour change and co-production – policy goals achieved through the joint efforts of citizens and state – is timely and important (Figure 1).

The core of this discussion paper – sections 2 and 3 – explores recent developments in thinking about how behavioural change can be achieved and how this might complement the more traditional policy tools employed by governments. This introductory section sets the scene by recognising that:

- the achievement of many social outcomes requires greater engagement and participation from citizens, and that governments ‘can’t do it alone’;
- there are powerful moral and political arguments for protecting and enhancing personal responsibility;
- and cost-effectiveness considerations may reinforce these arguments.

Finally, there is an acknowledgement of the wider political judgements that shape the division of responsibilities between citizens and state.
1.1 Government can’t do it alone

Across a range of policy areas, it has become increasingly clear that government cannot simply ‘deliver’ key policy outcomes to a disengaged and passive public. For example:

- **Employment.** Achieving greater participation in the labour market is recognised as an important route out of poverty and social disconnection; but it depends on the motivation and behaviour of individuals as well as the performance of the economy;
- **Health** outcomes rest heavily on the lifestyle and behaviour of citizens (diet, exercise, smoking, drinking) and only modestly on the quality of secondary health care;
- **Crime** and antisocial behaviour is at least as strongly affected by the values and behaviour of individuals and communities as by the activities of the police and criminal justice system¹;
- **Education.** Research has suggested that more variability in educational outcomes is explained by what happens in the home than in the school²;
- **Environment.** Key ‘resource productivity’ strategies depend on energy efficiency and reduction-reuse-recycling approaches by citizens;

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• **Transport.** Tackling traffic congestion will in part depend on willingness to switch to walking, cycling and public transport combined with community activity like car-pooling and home-working;

• **Economy.** Future competitiveness and prosperity depends in part on the entrepreneurialism, self-discipline, foresight and trustworthiness of the population.

This growing realisation has led to a shift of interest towards models of ‘co-production’, concepts explored in previous Strategy Unit papers. Government and its agencies may often have more impact on key policy outcomes by using their limited resources to engage, involve and change the behaviour of users and other parties, rather than concentrating on traditional modes of providing services.

### 1.2 Enhancing personal responsibility as a good in its own right

The appropriate division of responsibility between the individual, community and state is a hotly-contested political issue. For many traditions of social and political thought greater personal responsibility is a good in itself:

• it enables society to function with a less coercive state and judicial system;

• it enables public goods to be provided with a lower tax burden;

• the exercise of responsibility strengthens individual character and moral capacity; and

• greater personal responsibility – in terms of restraint and support for others - enhances the quality of life of the whole community.

Personal agency appears to be a fundamental human need. People generally want to be able to control their own lives, and to exert ‘agency’ on the world around them. For example, the self-employed typically report higher levels of life satisfaction than would be expected from their earnings and hours worked, a result thought to reflect enhanced personal control and responsibility over their working lives.

The public has strong – though not fixed – views on the appropriate balance of responsibility between state and citizen. For example, the vast majority of the British public believe that it is the State’s responsibility to provide healthcare for the sick, but less than a third think that it is the State’s responsibility to provide a job for everyone who wants one (see Figure 2). A sharpening of the sense of personal responsibility may help to explain the shift in some public attitudes away from a reliance on government in a number of key policy areas in the late 1980s / early 1990s. The welfare reforms in the late 1990s based on ‘tough love’ appear to reflect these shifting public attitudes – that there should not be ‘rights without responsibilities’, and that the receipt of publicly-funded benefits should be linked to an obligation to take available work or training.

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Over recent years, concerns about irresponsible or anti-social behaviour among a minority of the population have become a touchstone issue for concerns about personal responsibility – such as littering, vandalism and noisy neighbours (see Figure 3). Rising concerns about anti-social behaviour are especially striking since these have occurred against a background of generally falling crime.
In some areas of policy there is significant public enthusiasm for sharpening personal responsibilities and the consequences for those who engage in unacceptable behaviour. However, the public has not expressed a desire for greater personal responsibility in all areas of life. In some areas, the public appears to want less personal responsibility and more collective or state action (see Figure 4). For example, while the public were generally opposed to the banning of beef on the bone, they remain firmly supportive of a strong role for government in areas involving the protection of children (for example, in relation to the regulation of childcare).

The exercise of personal responsibility or choice is not without cost for the individual – it involves time and energy in assessing information. As the analysis in this report shows, people already employ ‘heuristics’ (rules of thumb) in a wide range of situations to reduce these information-processing costs. In our busy lives we sometimes look to the state to ensure that the default choice is a safe and appropriate one. Indeed, often the setting of a default option – or at least the framing of a choice – cannot be avoided. This has led some to argue that the role of the state is to engage in ‘libertarian paternalism’ - setting default options in the interests of the public but enabling them to opt for alternatives. For example, a fixed level of savings from income might be set as a default from which people are entitled to change. Empirical evidence suggests that this would lead to significantly-higher average levels of saving than a purely voluntary approach while also being less contentious than compulsion.

### Figure 4. Public support for state intervention

*Source: MORI 2002*

<table>
<thead>
<tr>
<th>Issue</th>
<th>Support</th>
<th>Oppose</th>
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<tbody>
<tr>
<td>banning beef on the bone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ban on prostitution</td>
<td></td>
<td></td>
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<tr>
<td>complete ban on smoking in public places</td>
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<tr>
<td>current laws on pornography</td>
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<tr>
<td>ban on dangerous dogs</td>
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<tr>
<td>complete ban on drink driving</td>
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<td>speed limits</td>
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<tr>
<td>current limit on drink driving</td>
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<tr>
<td>regulation of children’s or nursing homes</td>
<td></td>
<td></td>
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<tr>
<td>compulsory wearing of seatbelts</td>
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Shifting attitudes towards rights and responsibilities are also shaped by greater understanding of ‘causal responsibility’ (see further below). For example, growing knowledge about how genes affect people’s behaviour will have ongoing impacts on public, political and legal judgements in relation to healthcare, criminal judgements,

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and so on. Similarly, technological developments will continue to precipitate new choices and new corresponding responsibilities (e.g. screening of foetuses for gender or other personal characteristics).

Attitudes to risk and responsibility can change dramatically over time. For example, the overwhelming public support for the compulsory wearing of seatbelts today is far removed from public resistance to their imposition in the 1970s. It was once unthinkable to ban smoking on aircraft; now it is almost unthinkable to allow it. Similarly, today’s narrowly-balanced attitudes towards the state ban on prostitution reflect a steady softening in attitudes among the public over the past 20 years.

1.3 Improving cost-effectiveness

A further key argument is *cost-effectiveness*. Detailed cost-benefit analyses in health, crime and education have shown that behaviour-based interventions can be very much more cost-effective than traditional service delivery. For example, smoking cessation programmes deliver around ten-fold more quality-adjusted life years per pound than expenditure on drugs to reduce cholesterol (see section on applications below).

These arguments are employed in the Wanless (2002)\(^6\) review of the future of the NHS for HM Treasury:

“The importance of public engagement is incorporated into the Review’s three scenarios…. The core difference between the health outcomes in the *fully engaged* and *solid progress* scenarios is not the way in which the service responds over the next 20 years, but the way in which the public and patients do….

“The benefits of reaching such a [fully engaged] situation are large: significantly better health outcomes for the same or lower expenditure, as the scenarios illustrate. This is particularly important in thinking beyond the 20 year horizon. The demographic profile becomes much less favourable during the period between 2020 and 2040 as the ‘baby-boom’ cohorts reach older age, increasing pressure not only on health care but also on social care and other areas of public expenditure such as pensions. Thanks to the health outcome benefits associated with investment in public health, the UK would find itself much better placed to deal with such pressures under the fully engaged scenario than, say, the slow uptake scenario.”

[Wanless, 2000; 6.78; 6.95]

Similar assessments are likely for many areas of policy, especially when the long-term constraints, costs and benefits are considered.

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\(^6\) Wanless D. *Securing Our Future Health: Taking a Long-Term View*. For HM Treasury.
1.4 Establishing the division of responsibility between individual, community and state

The detailed division of responsibility between the individual, community and state will vary according to policy area and political viewpoint. As such, it is beyond the scope of this paper to offer any general settlement, but some key conceptual tools to help reach this division can be identified (see Figure 5):

- **Value-based judgements.** There will often be an *a priori* political view that individuals have certain rights and responsibilities, such as a right to free speech or a responsibility to treat others with dignity and respect. These judgements may be further buttressed by notions – often empirically grounded - of what constitutes ‘the good society’, such as the positive consequences that flow from mutual support and shared civic values between citizens.

- **Assessments of causal responsibility.** Generally speaking, people tend to assign ‘moral’ or ‘fair’ responsibility on the basis of who, or what, was the cause. Hence we seek compensation from the reckless individual or organisation that causes a major accident, but think it wrong for an individual to have to pay for treatment for an illness resulting from factors beyond their control, such as their genes or pollution. Similarly, more moral responsibility is assigned for educational choices to eighteen year olds than five year olds, on the basis that an eighteen year old has far more knowledge, control and ability to predict the consequences of their life-choices. This has been characterised as a presumption that individuals should take responsibility for their ‘knowingly taken life-choices’ (for good or bad) while the state or community should seek to attenuate ‘brute-luck’ effects, such as result from family social background.  

- **Assessments of optimum ‘task responsibility’**. The person, agency or mechanism best placed to act on, or address an issue is often assigned ‘task’ responsibility, even if they were not causally responsible for its occurrence. For example, medical professionals are tasked with curing illnesses that they did not cause, and the police are tasked with addressing crimes that they did not commit and with preventing crimes that they are not planning to commit.

- **Assessments of secondary consequences.** Even where the causal and task responsibilities are clear, the secondary or unintended consequences of enforcing responsibility can be judged as unacceptable. For example, sanctions aimed at parents will often be tempered by a consideration of the impact on their children.

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7 Halpern and White, 1997.
Cross-national survey data suggest that, compared with many countries, people in Britain appear fairly comfortable with the balance that UK policy has generally struck between state and individual responsibility. In contrast, the publics of both USA and some Scandinavian countries have tended in recent years to favour a shift towards more individual responsibility, while the publics of Latin America, Japan and the Former Soviet Union have wanted to see their governments take more responsibility (Figure 6).

Such public judgements presumably rest on a large number of factors including values, judgements of efficacy, and public preferences.
Fig. 6. Cross-national differences in judgements about whether ‘the government should take more responsibility to ensure that everyone is provided for’ (1=completely agree) versus that ‘people should take more responsibility to provide for themselves’ (10=completely agree). Data from World Values Survey, 1990-3.

Publics in both North America and Scandinavia favour more personal responsibility than they have now.

The British public – in 1990 – felt that the balance between individual and state responsibility was about right (this question was not asked in the more recent WVS in Britain).

The publics of the Former Soviet Union countries, Latin America, developing nations, but also Japan, favour a greater role for the state than they have at present.
2. Theories of behavioural change

Our behaviours are shaped by many factors – individual dispositions, family upbringing, the customs and habits of our society, as well as previous lifestyle choices.

This section explores theories of behavioural change rather than the causes of behaviour in general. However, we should have in mind that most of our behaviours are so deeply rooted that they are more akin to ‘habits’ and unspoken assumptions than carefully considered, fully-conscious choices.

2.1 Exploring alternative approaches to behavioural change

Governments have available to them a familiar set of tools for influencing behaviour: laws, regulation, taxes, financial subsidies, provision of services and information. In many cases these mechanisms are likely to be effective. However:

- There are many examples of fields where economic incentives alone have been ineffective. Aggregate savings rates are a well-known example (incentives tend to encourage shifts between savings vehicles, not between saving and income – though this also reflects the generally poor design of such incentives). Even within economics and political science, the limitations of relying on a ‘rational man’ understanding of human behaviour have been widely recognised in various situations. Extensive work has been conducted to construct more realistic models exploring the actual patterns of reasoning that people use.

- All modern societies suffer the consequences of prohibitions that are only partially effective – for example, against hard drug use. Clearly laws on their own have only limited efficacy where other powerful drivers of behaviour are involved.

- There is a mature and growing body of knowledge in psychology offering a more sophisticated approach to behaviour and behaviour change, but that remains largely untapped by many policymakers.

- More sophisticated ways of influencing behaviour are increasingly used in the commercial world as businesses focus on ‘relationships’ as well as ‘transactions’. Professional commercial marketing uses a structured approach to behaviour change which is applied to everything from selling trainers to tackling HIV.

The most simple theories see people as rational economic actors – maximising welfare and making perfectly informed decisions based on complete data. Real human psychology is more complicated and involves many other factors: cultural, social and physical environments, genetic predispositions and so on.

This chapter looks at a number of different frameworks and models that can be of use in thinking through approaches to behaviour change and co-production:
• the ‘rational’ or ‘textbook man’ model;
• ecological approaches to human behaviour, which bring together theories of behaviour change which operate at different levels, namely:
  - individual level theories;
  - interpersonal level theories; and
  - community level theories;
• conditionality and compacts

2.2 ‘Rational man’

A simple plausible model of behaviour is that people rationally seek to maximise their welfare. We assess the choices before us in terms of costs and benefits – pain and pleasure – then select the choice that will maximise our net utility. The classic tools of government follow from this model:

• Legal punishments – to increase the costs associated with certain behaviours and to therefore make them less attractive.
• Price signals – taxes or subsidies to adjust costs and benefits and therefore to encourage or discourage certain forms of behaviour.
• Information – to inform individuals of the costs and benefits of choices, and to highlight new and more adaptive behaviours.

In many cases these tools work relatively effectively. The move to unleaded petrol, for example, worked on the basis that consumers would be attracted to the cheapest form of fuel for their vehicles. Indeed the effectiveness of policies based on rational models of behaviour has, over the last 50 years, led to many proposals for extending it into other fields, ranging from marriage to education.

However, sometimes human behaviour doesn’t seem to follow the textbook model. For example, in order to reduce the number of parents dropping their children off late at an Israeli nursery, fines were introduced for late arrival. But rather than reduce lateness, the fines led to a marked increase in the number of children dropped off late. It seems that the fines led parents to feel that they were entitled to drop their children off late, since they were now paying for it!

The traditional textbook model of rational man is subject to three key problems. First, its assumptions are rarely fully met. Often there are large gaps in the information available to individuals – as well as to the state. For example, how should a definite cost or benefit be weighed against an uncertain cost or benefit? Such complications have led economists to focus on ‘bounded rationality’ – people are rational within boundaries of their knowledge and abilities.

Second, its assumptions can often be wrong, particularly about human cognition and motivation. A large body of research has sought to map empirically the actual pattern of human cognition, and the empirical facts about people’s wishes and aspirations. These turn out to be different to the claims of the rationalist model.
Third, the textbook rational man model tends to neglect the wider social ‘ecology’ in which people live. For example, peer pressure can be a hugely important determinant of behaviour.

2.3 Understanding the ‘ecology’ of human behaviour

There are now many theories of human behaviour that can be used to supplement or refine the textbook rational man model. These draw on a large body of empirical research and observation. The most compelling explanations treat behavioural systems as complex ecologies with multiple influences working in competing directions to influence behaviour. Ecology and eco-systems work well as an analogy for understanding human behaviour:

- the individual has certain real and perceived capabilities and attitudes and these affect their success and ‘survival’ chances;
- they interact with other individuals such as family, professionals, and colleagues;
- they may face institutions or people promoting specific, sometimes negative, behaviours – such as drug dealers, tobacco companies or the fast food industry;
- they are influenced by, and interact with, their physical, cultural and social environments and the norms in those environments are an important influence on their behaviour;
- they face ‘selection pressures’ that reward success and punish failing behaviour; and
- like animals in a natural eco-system, humans conserve their time and energy to maximise their chances of success – for example by using short-cuts, mental models, rules of thumb or ‘heuristics’ to guide their behaviour.

Box 1. Institutions trying to influence the ‘ecology’ of human obesity

- Cadbury’s Get Active initiative (linking chocolate consumption with free sports equipment):

- Diggit (GMTV) McDonald’s has secured £1 million pound sponsorship deal (and branding) of the children’s programme aimed at 3-8 year olds.

- BBC Tweenies Starting in 2001, Tweenies birthday parties have been available at McDonald’s (offering cheeseburger, fries, coke and birthday cake).

- Burger King and Teletubbies "Teletubbies has been a run away hit for our restaurants," said Richard Taylor, vice president of marketing for Burger King Corporation. "Although the Teletubbies PBS television show is geared towards kids, we are seeing huge numbers of teens flocking to our restaurants to get the clip on characters for their back packs and cars. Many are saying they are making a statement about individuality." (Burger King press release - 24 May 1999)
Coca-Cola, the world's largest soft drink group, won the global marketing rights for the first Harry Potter film, at a reported cost of £102 million.

Although ecology works well as a metaphor for human behavioural theory, the concept also has a formal theoretical pedigree and has been applied to health promotion and other areas. Ecological models bring together three sets of theories:

- individual – describing the behaviour of individuals;
- interpersonal – describing the relationships between individuals; and
- community or group – stressing the dynamics of community structures or institutions.

Social marketing approaches are one example of the use of such ecological theories. Typically they aim to change either the individual or the environment around the individual, or both. The changed behaviour of individuals and changed environment interact, gradually establishing new social norms. This process is represented in the diagram below:

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**Figure 7. Social Marketing – process**

![Diagram](image)

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In the discussion below, ‘good’ and ‘bad’ behaviour are used as a shorthand for the desired behaviour that an intervention is aimed at producing, and the harmful behaviour that an intervention is aimed at preventing or controlling\(^{11}\).

### 2.4 Individual level theories

Individual level theories focus on understanding behaviour by looking at the influences and processes involved in individuals’ decision-making. Some of the key models that have been developed are outlined below.

**(a) Instrumental and classical conditioning**

*Seminal work: Pavlov (1927); Skinner (1953)*\(^{12}\)

The fundamental building-block of behaviour, and therefore of behaviour change, is argued to rest on the learning of associations between stimuli. Classical conditioning refers to when an ‘unconditioned stimulus’, such as food, becomes associated with another stimulus, such as a bell. Even highly complex behaviours can often be explained through long chains of such associations.

Behaviour change is achieved through learning new associations, or removing existing associations (extinction). Hence advertising seeks to associate a new product with existing stimuli that are experienced as positive (such as alcohol or a car with sexual attractiveness). Effective learning generally requires the reward or punishment to follow soon after the unconditioned stimulus. Experimental evidence shows that the most difficult behaviour to change is that which has been learnt through a programme of increasingly intermittent rewards. This helps to explain puzzling phenomenon such as why people stay with abusive partners – the relationships were originally very rewarding, but the intervals between the positive experiences gradually became larger (and may even follow episodes of abuse).

Work over recent decades has shown that we appear to be innately predisposed to learn some associations more readily than others. For example, people will learn the association between a taste and subsequent nausea in a single experience, but might

\(^{11}\) This section draws heavily on several sources (which are recommended for further reading):

take years to learn the association between a visual stimulus and nausea. This raises questions about how readily people learn and adapt to the more complex causal associations that characterise modern society, such as between diet and long-term health.

(b) Cognitive consistency and dissonance

Seminal work: Festinger, 1957

The ‘cognitive consistency theory’ proposes that people are motivated to seek consistency between their beliefs, values, and perceptions. Where there is a clash between their actions and values/attitudes, people often resolve the discrepancy by changing their values or attitudes rather than their behaviour. For example, if someone agrees to take on a boring task for a very limited reward, there is a ‘dissonance’ between their behaviour (doing the task) and their reasoning (they would only do a boring task if there’s a decent reward). One way out of this dissonance is to stop doing the task – i.e. change the behaviour. Another is to change their attitude – i.e. convince themselves that the task is actually quite interesting.

Commitment and consistency offers a powerful tool for behavioural change. It uses the simple idea that a consumer will act in a way that is consistent with their expressed beliefs and other public behaviour. They will therefore tend to stick with commitments made publicly. For example, extracting a promise from restaurant-goers that they will call if they change plans reduces no-shows, compared to simply asking customers to do this. Studies of the level of activity in ‘staged’ crime scenes show that individuals who agree to ‘watch over’ someone else’s property become more than 400% more likely to attempt to prevent a theft than those who are aware that something is being stolen but have no such prior commitment to protecting it.

There are already examples of interventions that use commitment in practice. Parent-school contracts, for example, encourage people to adhere to an agreement they have entered into. The ‘Weightwatchers’ programme is similarly rooted in the making of commitments and subsequent consistency.

(c) ‘Heuristics’ and the consumer information-processing model

Seminal work: Tversky and Kahneman, (1974); Bettman (1979)

Tversky and Kahneman have documented in detail how humans use mental shortcuts, or ‘heuristics’. Under normal circumstances these do not present a problem, but in certain situations the use of these short-cuts can make people systematically prone to misjudgement. Central assumptions are that:

- individuals are limited in how much information they can process; and

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• in order to increase the usability of information, they combine bits of information into ‘chunks’, and employ decision rules, to make choices faster and more easily.

**Availability** and **simulation** are two of several heuristics that people use to judge how likely something is to happen, and hence guide decision making. People assume that events that they can easily call to mind (availability) or easy to imagine (simulation) are more frequent and therefore likely to happen. Hence people tend to be more nervous about flying than driving because airplane crashes are easy to recall. Similarly, it is found that the larger the jackpot in a lottery, the more tickets that are bought, because the consequences of a large prize attract more attention and are easy to imagine.

Policy applications that could, or do, use availability or simulation might include careers guidance for disadvantaged young people that highlight examples of educational success, or advertising campaigns that make the adverse consequences of drink-driving more memorable and familiar.

**Scarcity** concerns how people tend to value things that are scarce or likely to run out. A well known sales technique is to claim that “we’ve only got one of these left, sir” as a way of pressing a decision on a potential customer. Price can be a proxy for scarcity, and therefore there is a risk that goods or services that are free may lose their scarcity value. This is why in some HIV-AIDS programmes a nominal charge is made for condoms – to increase their value to the user.

Policy applications that utilise scarcity might include application or booking procedures that give a sense of having to queue or wait for a good. University or school application systems, since they involve each person making several applications per place, probably inadvertently trigger a sense of scarcity and artificially inflate satisfaction when a place is finally gained.

**Loss or gain.** There is good evidence that people value things differently depending on whether they are gaining or losing them. Loss tends to be felt more keenly than gain (Kahneman et al, 1990)[16] For example, within the health area, messages stressing the potentially negative consequences of ill health tend to be more effective than those that phrase the benefits in terms of potential gains[17].

**Peak experience** and ‘recency’. People place greater emphasis on short-lived extremes of experience (‘peak experiences’) than they do on average experiences. Thus a politician or institution will be remembered for their spectacular but infrequent successes or failures rather than for their general effect over time. People also place greater weight on things that have just happened and are therefore fresh in their minds. Hence markets tend to overreact to short-term figures, and give less weight to underlying trends and performance.

**Discounting.** Whether there are costs or benefits, or in the near future or recent past, people place greater emphasis on the immediate – the experience closest to them in

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time. ‘Discounting’ of the future is also an important element in understanding behaviour change. All people tend to discount, but those living chaotic or impoverished lives apply especially high discount rates as a result of their immediate circumstances – making it less likely that they will make longer-term investments in their health, welfare, security or education. Hence policies that are based on individuals’ investment in their future (e.g. personal pensions, adult education) have a tendency to widen inequalities as those with high discount rates will be less likely to take on these opportunities.

These temporal heuristics show why people rate a highly painful but consistent experience – and especially if it has a reduction in pain at the end - as preferable to an objectively less painful experience that had sharp peaks of pain and high pain at the end.

Many of the other theories described in this paper imply the use of heuristics, albeit of a more social character. A common heuristic would be to accept a standard recommendation or default set by a trusted authority (see below). Similarly, one reason why the introduction of choice and competition in electricity and gas supply to households has led to less changing of suppliers than originally anticipated is use of a heuristic along the lines ‘they’re all competing and all likely to be similar, therefore I’ll stick with what I know’.

**d) Stages of change model**

*Seminal work: Prochaska & DiClemente (1983)*

People’s readiness to change or attempt to change is viewed as a process of increasing readiness (see Figure 8). The stages are not necessarily passed through sequentially: people can enter and exit at any point, and often ‘recycle’.

This model has influenced methods of social marketing which gradually build people’s willingness to take on large-scale changes. Social marketers also stress the importance of a durable relationship – based on trust – which will enhance confidence to change rather than a one-off intervention.

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19 This model is widely applied in public health including for smoking cessation, exercise, low fat diet, radon testing, alcohol abuse, weight control, condom use for HIV protection, use of sunscreens to prevent skin cancer, drug abuse, medical compliance, mammography screening, and stress management. However, there is evidence that the stages of change model has proven a less effective guide to policy change than, for example, social cognitive theories (Michie and Abraham, 2003).
(e) Theory of planned behaviour

Seminal works: Fishbein and Ajzen (1975)\textsuperscript{20}; Ajzen (1985)\textsuperscript{21}

This theory holds that ‘behavioural intention’ is the key determinant of behaviour. This is influenced by three components: a person’s attitude toward performing the behaviour; the perceived social pressure to adopt the behaviour, called the subjective norm; and perceived behavioural control (see Figure 9).


In highlighting the importance of subjective norms – the perceived beliefs of others – as well as individual attitudes and characteristics, the theory of planned behaviour provides a conceptual link to interpersonal and community theories of behaviour change. The theory also highlights why knowledge alone doesn’t necessarily lead to a change in behaviour (see section on health below for further detail).

2.5 Interpersonal behavioural theories

These theories stress the interpersonal environment including social networks, social support, role models and mentoring. The key insight of these theories is that behaviour change is often better effected by focusing not just on the individual, but on their relationships with those around them – with parents, peers and so on.

(a) Social cognitive theory

Seminal work: Bandura (1986)

This theory focuses on skill and competency, and emphasises the importance of enhancing a person’s behavioural capability and self-confidence. In social cognitive theory (SCT), human behaviour is explained in terms of a three-way theory in which personal factors, environmental influences, and behaviour continually interact.

Behaviour can be influenced simply by conveying knowledge and skills. For example, in order for sexually-active teenagers to use condoms to protect them from sexually transmitted diseases, they need to know what type of condoms work best and how to use them properly; to believe that potential sex partners won't reject them because they want to use condoms; and to have the strength of confidence in themselves to state their wishes clearly before or during an intimate encounter.

Self-efficacy is a key concept in the theory, and refers to a person’s confidence in their ability to take action and to persist with that action. The advantages of greater self-efficacy include higher motivation in the face of obstacles and better chances of persisting over time without formal supervision. There are several ways to increase self-efficacy:

- **Setting small, incremental goals**: When someone achieves a small goal, like exercising for 10 minutes each day, their self-efficacy increases. The next goal (longer periods each day, five days in a row) seems achievable, and their persistence is greater.

- **Behavioural contracting**: By using a formalized process to establish goals and specify rewards (reinforcement), a patient trying to keep to a self-care routine can receive feedback about performance, praise, and a tangible, motivating reward.

- **Monitoring and reinforcement**: Feedback from self-monitoring or record-keeping can reduce anxiety about one's ability to achieve a behaviour change, thus increasing self-efficacy. For example, cholesterol monitoring gives at-risk patients

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several useful feedbacks: first that they have a problem that is specific to them; second that they can establish a target; and third that they can measure success as they progress. Self-efficacy can also be built through reinforcement, for example rewarding progress.

(b) Social networks and support


A social network is a web of social relationships, which may be characterised by reciprocity, emotional closeness, multi-functionality, the extent to which members know each other, how similar they are, and how geographically dispersed they are. Social support is aid and assistance exchanged through social networks. The attitudes and resources within a person’s network will strongly influence their behaviour – people will generally be far more influenced by the views of friends and family than by advice from government.

**Liking or personal affiliation** is an important factor in behavioural influence and a simple but important insight. ‘People do business with people they like’ is a long-standing maxim in professional selling, which stresses empathy as the first stage in a business relationship or sales opportunity. But what makes people like or dislike who they are dealing with? Factors include: physical attractiveness; compliments; familiarity and contact; and co-operation.

Social networks and support is a micro example or manifestation of social capital (see community theories below).

(c) Social influence and interpersonal communication

Seminal work: Kelly & Thibaut (1978) 24

Theories of social influence and interpersonal communication describe how people with social influence interact with others. Useful concepts include: authority; reciprocity; and mutuality.

**Authority** is a familiar and powerful social force. People will readily comply with authority that they consider legitimate. The most famous example from social science research was the willingness of subjects to administer electric shocks to others, ostensibly as a form of teaching, under the instruction of an experimenter. The shocks were fake, and the real experiment was about the compliance of the subjects, but more than two-thirds were prepared to administer ‘life-threatening shocks’ because the experimenter told them to (Milgram, 1974)25. This can have harmful consequences – the diagnoses and prescriptions of top doctors can go uncorrected, or the mistakes of top pilots lead to disaster, even though those around them have doubts and concerns about carrying out their instructions. Of course, the willingness to comply with authority can also be used for constructive purposes too, and helps maintain many public goods.

The basis of power or authority in a relationship may be categorised in six ways. The first four can be useful in securing ‘compliance’ in the short term, while the last two may be more effective at securing ‘conversion’ in the longer term:

1. **Expert** – someone else is more knowledgeable;
2. **Legitimate** – someone has the ‘right’ to direct behaviour derived from social roles with credibility and authority;
3. **Coercive** – when another can punish us (or that is what they believe);
4. **Reward** – when another can reward us;
5. **Informational** – the power of persuasion through information or a ‘marketing’ approach; and
6. **Referent** - based on identification with the person trying to exert influence.
   This is among the most effective sources of power and based on the use of ‘heuristics’ based on ‘liking’ or empathy.

One hazard in the exploitation of authority is ‘**psychological reactance**’ - whenever it becomes clear that someone is trying to persuade us of something, we instinctively take the opposing view. This defence mechanism is perhaps most prominent during adolescence when many attitudes are being formed, where it is sometimes known as the ‘Romeo and Juliet effect’, leaving some parents feeling that whatever they say, their child is apt to take the reverse view.

There are ways in which governments can boost their authority, and minimise psychological reactance in the public. For example, strengthening the independence of key sources of public information and guidance – such as agencies responsible for food, drugs, statistics or financial services – increases legitimacy and perceived expertise. In some cases highly visible leaders of such agencies can build on their expertise and legitimacy by identification, by making clear that they share the interests and concerns of the public (see also attribution theories below).

**Reciprocity** is another powerful social force. A person is more likely to act if they have been placed in some sort of debt, even if unwillingly. This is the technique used in direct mail when a pen or pre-stamped envelope is supplied with a request for money. Wine tasting at vineyards works on a similar principle – a little is given free, but a lot is realised in return – though without a formal contract. It has been argued that the strongly generational pattern of civic behaviour in the USA resulted from the GI bill – the public funding of free college education for World War II veterans - which triggered a cycle of reciprocity that lasted a lifetime. There may be ways in which similar effects can be achieved through ‘social gifts’ such as educational bursaries rather than couching such public expenditure in terms of ‘rights’ to services.

**Mutuality** can also support behavioural change. Behavioural interventions tend to be more successful where there is an equal relationship between the influencer and the influenced and where both parties stand to gain from the outcome. For example, healthcare could be structured in such a way that both doctor and patient share the benefit of a lifestyle change. The concept of ‘mutuality’ opens up some interesting avenues for doctors and other experts delivering services. As some of their patients become better informed, aided by the internet and expert systems, then the traditional authority-based doctor-patient relationship may lose its force. Mutuality might be
seen as a response to that, but it necessarily involves the patient assuming greater responsibility.

(d) Attribution and balance theories

Seminal work: Heider (1958)²⁶

These are theories concerning how people explain the behaviour of other people. Phenomena identified by these theories include: the fundamental attribution error; false uniqueness and false consensus; and inter-group bias.

**The fundamental attribution error** refers to the tendency to over-emphasise dispositional factors about people, and under-emphasise situational factors. An example is attributing a friend’s recent car accident to the fact that the friend is a poor driver rather than to the fact that there was ice on the road. The former would be a dispositional attribution; the latter a situational attribution. A classic everyday example of this phenomenon is the tendency of people to believe that quiz-masters and TV interviewers are more intelligent than they are.

The power of the fundamental attribution error should make policymakers wary of analyses of schools, hospitals and firms that too readily place heavy blame (or success) at the door of leadership – the chances are that situational factors have been underrated. This becomes apparent in business whenever the cycle turns and the previous year’s heroes lose their lustre.

One consequence of this behavioural trait is that public servants who work in struggling institutions are sometimes tarnished by its lack of success, underplaying the significance of situational factors. This is potentially harmful, especially as we may want our very best people to work in the most challenging schools, hospitals, and so on.

**False uniqueness and false consensus** essentially refers to our tendency to flatter ourselves. When asked to list our best abilities and how others stand on these abilities, we systematically underestimate our peers’ abilities (Tesser, 1988)²⁷. We also overestimate the extent to which others agree with our own position, hence providing false consensus for our personal viewpoint (Kernis, 1984)²⁸.

The false consensus effect may explain levels of frustration and disappointment in democratic institutions. Believing that everyone agrees with us, we can become frustrated that organisations do not better reflect our view (which we see as the view of the majority).

**Inter-group bias** refers to similar self-serving attributional biases, but at the group level. People attribute disproportionately good qualities and virtues to the groups they

identify with, while seeing outsiders as less worthy and deserving. Experiments show how even completely arbitrary divisions of strangers into groups immediately trigger these self- and group-serving biases (Tajfel et al.)

Though inter-group bias may underpin conflict, it may also serve desirable ends if channelled into competition in desirable activity – Sunday league football, best-kept-village contests, and school performance are examples. Recycling, for example, could be encouraged through explicit recognition of streets or communities that were either ‘leading the way’ or ‘failing to pull their weight’.

**Box 2: The effectiveness of face-to-face approaches**

Face-to-face, or interpersonal approaches to changing behaviour are often dismissed as prohibitively expensive or impractical. However, they have been shown to be highly effective in some key policy areas.

For example, individual face to face approaches have been effective in encouraging people to make greater use of alternatives to the car. Such schemes have been used in many places across the world; in Perth in Australia the emphasis has been on door to door visits to encourage people to use their cars less, combined with carefully organised peer pressure. Some schemes ask volunteers to keep a travel diary, as a means of focussing on which journeys could be made by other means; others rely on individual approaches by public transport staff.

Similar results have been found in terms of civic and political behaviour. A randomised experiment with 30,000 voters in the USA to see how voter turnout might be increased compared the effectiveness of leaflets, telephone campaigns and face-to-face reminders of a forthcoming election, all using a non-party political message highlighting the importance of voting (Gerber and Green, 2000). Leaflets were found to have a modest effect, boosting turnout by around 2.5%. Telephone calls were found to have, if anything, a negative effect. But face-to-face contact – someone turning up at your doorstep to remind you in advance – was found to have a highly significant effect, boosting turnout by around 10 to 15%. This meant that despite its relatively high cost, face-to-face contact was ultimately highly cost-effective relative to other means of boosting turnout.

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2.7 Community theories of behaviour

These theories are based on understanding how groups, organisations, social institutions and communities function.

(a) Social capital theory


Social capital consists of the networks, norms, relationships, values and informal sanctions that shape the quantity and co-operative quality of a society’s social interactions. The core insight is that social networks and cooperative social norms have value. Variations in social capital help explain variations in key policy outcomes, including economic performance, crime, education, health, and even the efficacy of governments.

Three types of social capital are often distinguished:

- bonding social capital (e.g. among family members or ethnic groups);
- bridging social capital (e.g. across ethnic groups); and
- linking social capital (e.g. across political classes).

In general, higher levels of social capital result in communities, and individuals within them, that are better able to act and take responsibility for themselves. For example, when hit by natural disasters such as earthquakes or heatwaves, higher social capital communities suffer lower death rates (due to people looking after each other) and recover faster than otherwise equivalent low social capital communities. However, high social capital can also sometimes impede social or behavioural change. For example, low educational aspirations, hostility to government or unhealthy cultural habits could all inhibit key policy outcomes among community members.

Social proof is a related phenomenon, which hinges on how people look to those around them – including strangers – for guidance as to how to behave. For issues as diverse as how to behave in a library or how fast to drive on motorways, the behaviour of others provides us clues about the prevalent social norms and with evidence about how we should act. The use of canned laughter to signal that a joke is funny is an example. Buskers that arrange to have a substantial sum of money in their hat are more likely to have more and larger donations as they play.

Some government interventions are designed to affect the social proof influences on individual behaviour. For example, laws to ban smoking in public places in the US have also had the effect of reducing people’s exposure to social smoking, and there is strong evidence that this has impacted on smoking rates\textsuperscript{34}.

A key aspect of social proof is that under conditions of uncertainty people look to cues in the environment and others around them to guide their behaviour. Of course, others around them may be doing much the same. In a famous illustration of this, subjects who did not know each other were arranged in a waiting room into which smoke began to pour through a vent (Darley & Latane, 1968)\(^{35}\). It was found that the larger the number of people in the waiting room, the less likely it was that anyone would raise the alarm, though subjects would surreptitiously look at each other to try and figure out what was going on.

For further information see the Strategy Unit paper on social capital (2002)\(^{36}\).

**(b) Diffusion of innovations**

*Reference work: Rogers & Everett (1995)*\(^{37}\)

Diffusion of innovations theory addresses how new ideas, products, and social practices spread within a society or from one society to another. There are several useful concepts here: relative advantage; compatibility; complexity; and trialng.

*Relative advantage* refers to the degree to which an innovation is seen as better than the idea, practice, programme, or product it replaces shapes whether it is adopted. In environmental policy it might be preferable specifically to position some activities (such as recycling paper) as better than current practices where paper is thrown away. By doing this clear choices would be presented for individuals on whether to continue with an inferior activity or commence a superior one.

*Compatibility* refers to the degree to which an innovation is consistent and compatible with values, habits, experience and needs of potential adopters shapes whether a new behaviour is adopted. Placing voting stations in supermarkets is a good example of this sort of behavioural technique. Not only could they make voting more convenient, but they normalise it and make it clear it can be part of most people’s lifestyles. Similarly, cycling might be encouraged by equipping offices and places of work with the appropriate facilities to cater for cyclists – such as showers, safe storage areas and places to change (see also social proof above).

*Complexity* refers to how people are more likely to be attracted by innovations that are easy to understand and/or use. Transport policy and the shift to public transport might be enhanced if there was a one-stop advice service for multi-modal public transport journeys which allowed people a very quick and easy insight into journey routes, times and booking.

*Trailing* refers to the extent to which innovation can be experimented with by individuals and communities before a commitment to adopt is required. Trailing can

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be influential in the success of behavioural change schemes: people are inherently more likely to commit to behaviours and lifestyles they have tried, and liked.

2.6 Conditionality

Conditionality is another tool for behavioural change. At its most basic, it is a fundamental building block of learning. A reward (or punishment) is contingent on the behaviour of the individual.

In relation to citizens and government, the presumption is that the citizen is aware of the conditionality and weights this knowledge in their decision-making and actions. Policy-makers tend to think of conditionality in terms of conditions attached to benefits or the use of public services, such as the requirement to seek work while on unemployment benefits. However, neither the ‘benefit’ nor the sanction need necessarily be economic. For example, benefits and sanctions can be social or psychological, such as being held in high regard by the community and the threat that this respect may be lost.

In this wider sense, conditionality is common feature of our social and economic lives, and is integral to everyday notions of responsibility – that there are consequences for us from our actions.

<table>
<thead>
<tr>
<th>Box 3. A political philosopher’s view on conditionality</th>
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<tbody>
<tr>
<td>The political philosopher Stuart White has suggested five questions that policymakers should ask about conditionality (Stuart White, 2002):</td>
</tr>
<tr>
<td>• What is the specific social responsibility that the conditionality proposal is intended to enforce?</td>
</tr>
<tr>
<td>• What important public value grounds this social responsibility (i.e. what explains why we have it)?</td>
</tr>
<tr>
<td>• Why is it appropriate to make a specific welfare benefit conditional on performance of the social responsibility (i.e. why penalise non-performance by cuts in this specific welfare benefit, rather than in some other way)?</td>
</tr>
<tr>
<td>• To what extent is the fairness of enforcing a given social responsibility through the welfare system diminished by background social injustice?</td>
</tr>
<tr>
<td>• Does enforcement of a given social responsibility through the welfare system treat all those with the responsibility equitably?</td>
</tr>
</tbody>
</table>

Conditionality is often discussed in terms of a contract – an agreement on fixed terms. The individual receives a benefit, for example in the form of a right of access to a public service. In return, some kind of responsibility may apply. However, agreements between the state and individuals often fall far short of this type of legal ‘contract’, and may better be understood in the looser sense of a ‘compact’ – a mutual bargain or agreement.
3. From theory to application

This section explores the application of ideas about personal responsibility and co-production.

Traditionally, governments mainly made use of the law, backed up by appropriate policing and enforcement, to enforce citizen obligations and in doing so, influence the behaviour of the majority of law abiding citizens. Governments have subsequently added to their capacity to influence behaviour by introducing fiscal instruments (such as tax rates or pricing signals). Across the world, personal tax and benefit systems, and public sector pay regimes, have been used: to encourage people to save more or less; to change their consumption or production; to have many or few children; to get married or to delay marriage; and to retrain or enter careers where there are skill shortages. Reductions in smoking, driven partly by tax rates, are an example of such policy instruments having the desired behavioural effect. There are ongoing discussions within and outside government as to where else this approach is relevant (for example extending congestion charging in city centres).

Together, financial tools and legal compulsion form a complementary set of policy levers. Financial tools allow for greater individual choice, but also raise equity concerns. Compulsion can reduce equity concerns, but also reduces choice and the scope of personal responsibility.

Governments have also made use of information and communications campaigns to try to influence behaviour, for example in tackling drink-driving, benefit fraud, HIV, drugs, car theft, child safety and smoking. While advertising and communications are likely to remain a part of many strategies for behaviour change, the challenge is to develop new tools and techniques based on the models of behaviour change discussed in section two.

In the sections below we examine the application of some behaviour change strategies in the UK, looking at the fields of:

- employment;
- health;
- crime; and
- education.

In each area the paper looks at the role of compacts and conditionality; the application of other approaches at the individual, interpersonal and community level; and considers evidence on cost-effectiveness.

3.1 Employment

Employment is recognised as a key route out of poverty and social disconnection. Through the New Deal, the UK government is trying to encourage lone parents into work and to ensure that young people make an effective transition into the world of work.
(a) The role of compacts and conditionality in employment

The New Deal is an example of the application of conditionality to benefits. It is credited with helping to reduce the long-term unemployment rate in the UK, and with helping to explain variations in activity rates across nations, notably the high employment rates in the Nordic countries that pioneered the approach.

Recent US data examining the effects of welfare to work as applied to single mothers has shown positive effects not only for the activity rates of the mothers, but also for educational attendance and well-being of their children (at least for children under twelve).

Moving into employment is generally associated with significant benefits over and above increased income. For example, mental health and life satisfaction are significantly boosted. Wider social benefits accrue from reduced benefits payments, increased tax-take, and second-order benefits to children, individuals and communities.

(b) Other approaches

It can be argued that welfare to work is effective because it employs a number of behavioural change techniques as well as an economic incentive: aversion to loss (in this case a modest financial benefit); psychological discount rates (giving extra emphasis to immediate consequences) and authority (of the advisor). In the hands of a skilful advisor, welfare to work can also play on reciprocity (society wants you, or even I want you, to make a contribution in return for support); social proof (many others have done this) and personal affiliation (on the basis of an ongoing relationship).

The use of a personal contact or affiliation through JobCentre+, with a personal and ongoing contact to guide the unemployed individual back to work, is clearly important to this approach. However, it is likely that variations on this approach could better utilise the techniques described in this paper, leading to even more improved outcomes and activity rates.

(c) Interpersonal and community influences (Social context)

Social mobility and career choice is significantly influenced by expectations of parents and others, explaining why the children of lawyers are much more likely to become lawyers, and the children of the unemployed are much more likely to become unemployed. Connexions, a government funded service for young people, is an attempt to provide an alternative source of information and advice to young people, breaking limited or negative expectations. However, current interventions still tend to be focused on individuals rather than the social context. It may be that interventions

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that focus on whole peer groups and families might prove additionally effective. Intermediary and community organisations may have an important role to play here.

Experimental programmes in the USA have had some success in reducing unemployment in very deprived areas by using ‘chain employment’. Firms are encouraged to employ one or two individuals from an area of concentrated disadvantage, then to work with that individual to recruit others from the same area. Another experimental scheme, this time from Canada, funds individuals from areas of high unemployment to have employment or volunteering experience in more prosperous areas to give the individual contacts and exposure to employment.

Ecological approaches might also be employed to help people with disabilities move into work. For example, campaigns that promote the expectation that - where possible - people with disabilities work, should run alongside programmes designed to: improve self-efficacy; change the expectancies of those around the disabled person; and encourage the acceptance of people with disabilities by employers and workplaces. Such a strategy might encourage people with disabilities to see movement into the workplace as part of the process of encouraging their greater social acceptance.

Ecological or behavioural change techniques might also be used to effect changes in the quality of work in both private and public sectors; increasing productivity and creativity (such as through greater emphasis on intrinsic and team-based rewards), aiding organisational change (such as through modelling and employer-employee compacts) and to help firms and employees move towards more positive work-life balances (such as through setting incremental goals and harnessing social networks).

(d) Cost effectiveness

There is fairly widespread agreement that active welfare policies have been cost effective, and have been credited with reducing the base-rate of unemployment in countries employing them. There is more uncertainty about the relative cost-effectiveness of related approaches, such as the contribution made by different kinds of personal advice and support. Ongoing evaluations of alternative approaches by DWP suggest that such judgements will be made with increasing confidence in future years.

3.2 Health

The kinds of diseases that affect Britain today are very different from those of a century ago; problems from infectious diseases are now far less common (see the forthcoming Wanless report\textsuperscript{39}). Figure 10 below shows the major causes of premature (under age 75) death in England in 2000. Diseases of the circulation, cancer and respiratory illnesses dominate. Much is known about the causes and contributors of such illnesses, and health and life expectancy can be significantly improved by

\textsuperscript{39} Securing Good Health for the Whole Population (HMSO, 2004)
lifestyle change. But such behavioural change has been slow to happen and has shown marked social class polarisation – causing widening health inequalities.

Some of the behaviour change which would be desirable in achieving better health outcomes links to issues of addiction and compulsiveness (e.g. drug addiction; compulsive eating). These issues need to be considered as part of the development of approaches to behaviour change and co-production.

**Figure 10. Major causes of mortality under 75 – dominated by ‘lifestyle’ diseases**

<table>
<thead>
<tr>
<th></th>
<th>Males (Total deaths 109,094)</th>
<th>Females (Total deaths 72,486)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coronary Heart Disease</td>
<td>24%</td>
<td>14%</td>
</tr>
<tr>
<td>Stroke</td>
<td>5%</td>
<td>7%</td>
</tr>
<tr>
<td>Other circulatory (includes Heart Failure and Diseases of Arteries)</td>
<td>7%</td>
<td>7%</td>
</tr>
<tr>
<td>All cancers</td>
<td>32%</td>
<td>41%</td>
</tr>
<tr>
<td>Injury &amp; Poisoning</td>
<td>8%</td>
<td>4%</td>
</tr>
<tr>
<td>Respiratory</td>
<td>10%</td>
<td>11%</td>
</tr>
<tr>
<td>Others</td>
<td>14%</td>
<td>16%</td>
</tr>
<tr>
<td>Others</td>
<td>16%</td>
<td>4%</td>
</tr>
</tbody>
</table>

The chart shows that approximately four in five deaths under 75 are attributable to circulatory disease, cancer and respiratory illness. Box 4 below shows that behavioural factors – such as diet, exercise and smoking - play a major role in virtually all of these diseases.

Though the evidence linking these activities to early death is overwhelming (there are some 120,000 peer-reviewed papers on smoking and health), and there is widespread understanding of the risks, many people still do not or cannot make healthy choices - even when the pleasure associated with drinking and smoking is allowed for.
(a) Compacts and conditionality

There has been discussion both in the UK and elsewhere about whether sharper conditionality could improve personal responsibility and reduce unhealthy behaviours, improve compliance with medication, and reduce abuses of the healthcare system.

In a causal sense, conditionality already exists – unhealthy behaviour tends to cause disease and premature death. The issue is partly making this literal conditionality more real: overcoming our psychological discounting of the future, our culturally embedded behaviour and habits, the distortions of our mental heuristics, and the attributional biases that make us think that it ‘won’t happen to me’.

One option, discussed in the media over the last year, would be to make personal responsibility for health and the responsible use of health services more explicit by adding conditions, penalties or rewards alongside patients’ rights. This immediately raises potential concerns about equity since unhealthy behaviours are heavily and increasingly concentrated among the most disadvantaged of the population, suggesting that any such developments need to be very carefully considered.

The Scottish Executive has recently consulted on patients’ rights and responsibilities (see box 5)\textsuperscript{40}. The first development here is the idea of making the rights and responsibilities explicit and formulating them into an agreement, albeit one that is not binding on the patient (there are no sanctions and the responsibilities are expressed in soft language). The absence of sanctions addresses the issue of equity, but might raise questions about the usefulness of such an approach. Similarly, it has been pointed out that as drafted, such compacts tend to be written very much from the viewpoint of the

\textsuperscript{40} Scottish Executive (2003) \textit{Patient Rights and Responsibilities A draft for consultation.}
service provider; there is only limited read across from the patients responsibilities to rights; the obligations on the service provider are arguably rather vague; and the patient has little opportunity to shape the compact itself.\textsuperscript{41}

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**Box 5. Patient rights and responsibilities – Scottish Executive draft (2003)**

<table>
<thead>
<tr>
<th>Responsibilities</th>
<th>Rights</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Be on time</strong> Be on time for appointments and tell the clinic, practice or hospital if you cannot keep your appointment.</td>
<td><strong>Access to NHS services.</strong> To use the NHS and to be treated equally, no matter what your income, race, sex, age, sexuality or disability.</td>
</tr>
<tr>
<td><strong>Treat healthcare staff politely and with respect</strong> Violence or racial, sexual or verbal abuse is completely unacceptable.</td>
<td><strong>Confidentiality</strong> To your health records being confidential. We will only give information about you to NHS or social care staff involved in your care, and only if you have given your permission. There are only a very few exceptions to this, for example, if there is a court order.</td>
</tr>
<tr>
<td><strong>Follow the advice and treatment you receive</strong> Try to follow any advice given to you. If you are worried about doing this, discuss it with the person giving you the advice at the time.</td>
<td><strong>Informed Consent</strong> To accept or refuse treatment including examinations, tests and diagnostic procedures.</td>
</tr>
<tr>
<td><strong>Information</strong> Make sure that your doctor, dentist or any hospital or clinic you are going to has up-to-date information about how to contact you.</td>
<td><strong>Contraception and Maternity Services</strong> To receive free contraceptive advice and maternity care from your GP or from a family planning clinic.</td>
</tr>
<tr>
<td><strong>Medicines</strong> Try to take any medicine which is prescribed and finish the course of treatment. Do not take medicine which is out of date, and give old medicine to your pharmacist to get rid of.</td>
<td><strong>Emergency medical care</strong> To go to your local accident and emergency department in an emergency or to phone 999 for an ambulance.</td>
</tr>
<tr>
<td><strong>Pass on your comments to healthcare staff</strong> Improving services is helped if the people providing them know what you think about the services. Help staff by filling in surveys if you are asked to, and use any other ways of providing feedback.</td>
<td><strong>Family Doctor (GP)</strong> To be registered with a GP and to have information about GPs in your area, and the services they offer.</td>
</tr>
<tr>
<td><strong>Using emergency services</strong> Only use emergency services in a real emergency. Don’t forget that there will be seriously ill people who need to use these services.</td>
<td><strong>Health records</strong> To see your health records, and any medical reports prepared for an insurance company or employer.</td>
</tr>
<tr>
<td><strong>Self care</strong> Look after your own health and think about how you could have a healthier lifestyle.</td>
<td><strong>Information</strong> To receive information on local health services. You can get this from your GP, NHS trust, your NHS board, your local health council or from the NHS Helpline or NHS-24.</td>
</tr>
<tr>
<td><strong>Access to NHS services.</strong> To use the NHS and to be treated equally, no matter what your income, race, sex, age, sexuality or disability.</td>
<td><strong>Research or training</strong> To choose whether or not to take part in research, and to pull out of the research at any time.</td>
</tr>
<tr>
<td><strong>Confidentiality</strong> To your health records being confidential. We will only give information about you to NHS or social care staff involved in your care, and only if you have given your permission. There are only a very few exceptions to this, for example, if there is a court order.</td>
<td><strong>Second opinion</strong> To ask for a second opinion from a different GP if you feel that the decision made about your treatment by your usual GP does not suit your treatment needs.</td>
</tr>
<tr>
<td><strong>Informed Consent</strong> To accept or refuse treatment including examinations, tests and diagnostic procedures.</td>
<td><strong>Complaints</strong> To complain if you are not happy with the treatment or service you have received.</td>
</tr>
</tbody>
</table>

\textsuperscript{41} Harry Cayton, pers. Comm.
However, even this loose form of ‘compact’ has some desirable attributes – exploiting commitment and consistency and framing the relationship in terms of reciprocity. There is also an assertion of mutuality (that the patient’s health is a joint undertaking) built into the agreement. Having a contract with all clients of a general practice also establishes a social norm for appropriate conduct. Finally, the general practitioner and supporting staff can use the agreement as a background for employing the power of authority without appearing to be engaged in arbitrary hectoring.

**Example: should we charge for missed medical appointments?**

The cost of missed appointments in the NHS – so-called ‘did not attends’ (DNAs) is a source of increasing concern. The Wanless Review of the NHS states that:

“Missed appointments impact seriously on the health service’s ability to plan and deliver timely care. In 2000, 1.56 million out of a total of 12.5 million outpatient appointments were missed – a rate of 12.5 per cent.” [Wanless Review, para. 6.87]

The Wanless review concluded that “there may be an argument for charging for missed appointments. Such a system could deliver benefits through better efficiency in the service arising from increased patient responsibility and thus decreased levels of missed appointments.” In general practice, there is a similar problem. A survey by the Doctor Patient Partnership revealed that:

“Almost 17 million GP appointments and nearly 5 ½ million practice nurse appointments are being wasted each year by patients who ‘did not attend’ (DNA). The cost for the NHS is tremendous with a time equivalent of over 2 ½ million hours of lost GP consultations each year. This figure is representative of the work done by an additional 1,692 full-time GPs each year in the NHS, well above the number of GPs needed to meet Government total workforce targets for 2004.” [Doctor Patient Partnership, Press Release 14 August 2001]

Some countries do charge for GP and other visits, and this could be seen to address the moral hazard problem implicit in totally free provision. However, this raises questions of equity and would appear to contradict a popular general tenet of the NHS: that it is free at the point of delivery. Another critique is that the problem of DNAs lies as much with the inflexibility of providers as it does with patients. If a patient is sent an automatic appointment for six months hence, and has little or no opportunity to say whether it is convenient or not, it is not surprising that many fail to turn up. This approach fails to utilise commitment and consistency from the patient, who has never agreed to attend. Nonetheless, as waiting lists fall and the responsiveness of the NHS improves, the case for some kind of sanction for non-attendance without warning may strengthen.

The process could begin by providing information in surgeries about the cost of GP appointments (£12.75 in 1998/99\(^2\)) with messages about NHS waste and taxes.

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\(^2\) Department of Health, Departmental Report 2002-3 Figure 7.3: Key Statistics on General & Personal Medical Services (GPMS).
emphasising scarcity and triggering guilt. It may then be possible to move to an approach based on the commitment concept (see below) where receptionists ask each person to promise to notify if they cannot attend. The government could subsequently announce its intention to charge for missed appointments, but with a long lead time, during which the surgery would warn patients that in the new regime they would be charged. The idea would be to move the individual and social norm to the point where charging became not only accepted, but expected and rare.

(b) Other approaches to behavioural change in health

The evidence suggests that, even when offered information and guidance, a significant proportion of people do not adhere to healthier behaviours. For example, the British Health Survey shows that whilst 60% of those people who were advised by a medical person to reduce their drinking had done so five years later, 40% were still drinking the same or more. This compares to a figure of 58% drinking the same or more than five years ago who had not been told to cut down at all\textsuperscript{43}.

Several decades of research have conclusively shown that knowledge alone often fails to change behaviour. Despite this, health promotion messages still tend to focus heavily on knowledge rather than other aspects of persuasion that have been shown to be more important, such as other people’s attitudes (see Figure 11)\textsuperscript{44}.

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\textsuperscript{43} British Health Survey (1993).

\textsuperscript{44} Abraham, C., Krahé, B., Dominic, R., & Fritsche, I. (2002). Does research into the social cognitive antecedents of action contribute to health promotion? A content analysis of safer-sex promotion leaflets. British Journal of Health Psychology, 7, 227-246
On the positive side, health is a policy area within which there is a growing body of knowledge about how alternative approaches to behaviour change may be employed. As we have seen, forming a ‘compact’ between patients and clinicians, while short of formal sanctions might still harness psychological and social pressures to change. There are also a number of further interventions and insights.

- It may be wise to rely more heavily on GPs and other trusted health professionals as agents of persuasion. Currently these ‘strong’ channels tend to get less focus than ‘weak’ channels such as leaflets with factual information. The high respect (authority) and personal affiliation felt for medical professionals (liking and affiliation), together with their involvement at critical junctions of life (salience), means that they are uniquely well placed to reshape unhealthy behaviour.

- Information and advertising campaigns could be better designed around the techniques of behavioural influence. For example, health messages – such as concerning the importance of self-examination – have been found to be significantly more effective when worded in terms of loss of years of life than in gain (aversion to loss). Doctors’ letters to smokers describing the number of years which will be lost if they persist in smoking are more effective than letters which describe the number of years they will gain if they quit.45 Similarly, campaigns that focus on immediate consequences, such as unattractiveness to the opposite sex if you don’t brush your teeth, are more effective than campaigns focused on longer term effects, such as loss of teeth (psychological discounting).

- Interventions need to break through the psychological defences and attributions that people employ to convince themselves that they are not at risk, such as when smokers deal with cognitive dissonance by telling themselves that they will soon be quitting. Effective interventions need to convince individuals that they are at risk, such as by showing them that they personally have clogged arteries, but also to convince them that they can change their behaviour and that it will make a difference (self-efficacy).

More generally, it is worth noting that several powerful psychological forces are ranged against public health professionals. Discounting makes us disinclined to change our behaviour now for a long-term gain in health or longevity (rather the burger today than the extra year tomorrow). Asymmetry of losses versus gains make us disinclined to give up our current satisfaction (smoking) for a potential gain (feeling fitter). And our psychological defences and attributions make us feel that early death and morbidity are things that happen to others, not us. Health professionals need to understand the power of these forces, not only in order to change individual behaviour, but also to establish public support for preventative health programmes.

45 Wilson, Purdon & Wallston (1998); Wilson, Kaplan & Schneiderman (1987).
Box 6: Changing the default: should we change to presumed consent for organ donation?

Behaviour is strongly affected by ‘default options’ – we tend to stick to a starting point even when it is arbitrary (anchoring). For example, 20% of motorists in New Jersey (USA) opt to pay for the full right to sue other drivers in an accident, while in Pennsylvania - where the default is that premiums cover this right – 75% of motorists pay the premium and retain the right (Sunstein and Thaler, 2003).46

Such evidence can be used to make the case for presumed consent for organ donation – that donation rates are more a function of the default rule rather than public preferences. Countries with presumed consent regulations for organ donation have a higher rate of organ transplant than those – like the UK – which operate an opt-in system. Data suggest that changing the default position in the UK law could increase donation rates by 50%.47

However, other interpersonal factors are at work alongside the influence of the default rule, and need to be considered. These factors can be seen even in Spain, the country with the highest rate of organ donation in the world:

In 1989, when the National Transplants Organisation was created, there were many people in Spain who believed that the main solution to solving the organ shortage was to change the legislation and apply strict presumed consent laws. However, we found little evidence to suggest that the style of legislation influences the organ donor because regardless of how the donor might become available, relatives are always consulted, as in most European countries, and their wishes are always respected. In Spain, despite the very large increase in organ donation, over 20% of families refuse to allow organ donation to take place. This has fallen from 30% in the early 1990s but is still high. In an annual Spanish census, two thirds of the Spanish population are against a presumed consent approach as they consider this type of legislation an abuse of authority and offensive to relatives. Most of the Spanish people are in favour of organ donation but they want to be consulted.48

The importance of interpersonal factors can be seen within the UK’s current system. The Royal Bolton Hospital has seen a 700% increase in organ donation since they appointed a specialist donor liaison sister.49 Default rules and interpersonal factors, as well as wider public attitudes, affect organ donation. Public support for any changes to the current legislation would be essential – and such support may have been weakened by recent controversies over retained organs at Alder Hey and elsewhere.50

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47 Gimbel R W et al. (2003) Presumed consent and other predictors of cadaveric organ donation in Europe. Prog Transplant 13(1); 17-23
48 Quote from presentation by Rafael Matesanz to a National Kidney Research Fund symposium, ‘A decade of continuous improvement in cadaveric organ donation: the Spanish model’ held at the Royal College of Physicians on 20th April 2001
49 BBC News 29/10/03
(c) Interpersonal and community influences (social context and norms)

It is clear that social norms and context play a powerful role in health and health related behaviours. For example, whether an individual exercises or not depends heavily on the habits and attitudes of their friends and associates. Similarly, eating a healthy diet is strongly culturally determined. The southern European and Japanese diets are well recognised as being healthier than those of many northern European countries, including Britain.

Recent research has suggested that, contrary to the implication of the term ‘diseases of affluence’, increased wealth has not universally led to diets high in saturates and excessive alcohol intake. To some extent, wealth appears to allow people to develop, or revert to, their culturally and socially determined preference. Hence, affluent Australian immigrants of South European descent use their wealth to have fresh salad and virgin olive oil all year round, instead of just during summer, while immigrants from the Former Soviet Union use their wealth to have red meat all year round.

Changing deeply rooted cultural and social health-related norms is clearly difficult. Media-based campaigns have had only limited successes. A more effective alternative appears to be twinning informational campaigns with targeted lifestyle ‘coaching’ among a sample of key population groups in the population, covering the preparation and cooking of healthy meals, exercise and so on.

Another successful example is how Thailand has managed to dramatically transform sexual behaviours to reduce the transmission of AIDS and other sexually transmitted diseases. This was achieved by a sustained, multilevel attempt to change social norms concerning condom use. The campaign combined consultation with national information campaigns, active engagement of at-risk groups (commitment and consistency), severe penalties for brothels not following safe practices (economic sanctions), and practices that empowered prostitutes to be able to insist on condom use (self-efficacy). But perhaps the most important aspect of the programme was how the parallel application of all these elements created a sense that habits were changing (social proof) and fostered the emergence of new social norms.

We should note that social networks themselves appear to have direct, and sometimes dramatic, effects on mental and physical health (see Box 7). A substantial body of literature, including the results from longitudinal studies from several nations, indicate that having supportive, confiding relationships significantly improves age-adjusted mortality rates. Early relationships, notably the quality and character of our relationships between children and their parents, are also powerfully linked to long-term health outcomes. These studies suggest that in as far as individuals, communities or policy-makers can affect the quality of personal relationships or social capital, significant health benefits can be expected.

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52 Orish D (1990)
53 Graham Hart, MRC Social & Public Health Sciences Unit
Support groups among people with existing illness have similarly been found to significantly improve outcomes. The efficacy of self-management for chronic illness has been found to be most effective when combined with a support group. Even ‘virtual’ mutual support seems to help. For example, an e-mail discussion group for back pain was found to lead to significant improvements in pain, disability and distress, as well as a 46% reduction in visits to the doctor. Interestingly, lay-led interventions often appear to work as well as professionally led support, suggesting the high value of tacit knowledge and emotional sympathy of fellow sufferers.

But individuals often only have limited control over the quality of their relationships – and particularly their early relationships. Perhaps the most important message of this literature concerns mutual responsibility: our behaviour, and the way that we relate to those around and close to us has powerful health effects. But the state may be able to play a modest but important role by facilitating this mutual support, such as encouraging patient support or community groups and through supporting parenting skills.
Box 7. The direct effects of social networks and support on health

The chart below from the Alameda County study in the USA – a methodologically strong longitudinal study - shows survival rate for a heart attack improving with increasing level of social support. This study found that the socially isolated – and especially men – had roughly three-times the age-adjusted mortality rate of those with strong social networks, even having controlled for a host of behavioural risk factors.\(^{58}\)

![Chart showing survival rate for heart attack](chart.png)

There is also significant evidence that early relationships and parenting behaviour is associated with mental and physical health outcomes in children.

![Bar chart showing odds of health problems](bar_chart.png)

Example: control of obesity, cholesterol and coronary heart disease (CHD) outcomes

Prevalence of obesity has risen rapidly in Britain from less than 10% in the 1980s to over 20% today\textsuperscript{59}. It has risen more rapidly in Britain than in most other OECD states. Some of the risks associated with it, such as cardio-vascular disease, can be mitigated to some extent with drugs, and NHS expenditure on these is rising rapidly. However, the main drivers – poor diet and sedentary lifestyle – are largely outside the direct influence of the NHS. A programme to tackle obesity could be based on a comprehensive approach to the behavioural ‘ecology’ of obesity.

- It would be built on the developing evidence base covering both medical and psychological aspects of obesity and what works in tackling it. As well as informing policy approaches, the evidence base could be used to raise awareness, challenge beliefs (the false consensus effect) and convince people that they could improve their own health (self-efficacy).

- Cross-departmental approaches to physical activity and sport could be developed along the lines of the Australian strategy “Active Australia”\textsuperscript{60}. This would incorporate a wide base of participation in sport (see the recent Strategy Unit Report “Game Plan”\textsuperscript{61}), and also include walking and cycling for transportation, active and safe play, good workplace and schools practice and ensuring reach to all parts of the population, including the elderly. To be successful, such a strategy would need to change social norms, employing mutual reinforcement between friends, relatives and workmates (liking and affiliation) and normalising exercise by incorporating it into everyday life (habit formation and social proof).

- Techniques of mass media communication could be used to challenge existing unhealthy norms and establish new ideas about food and exercise. These should be based on ‘social marketing’ techniques rather than straightforward information provision. For example, a ‘lifestyle’ health component could be included in parenting classes, with advice on diet and exercise for children.

- Government-supported action could be taken to reform the marketing practices of some parts of the fast food and confectionery industries. Labelling, and in some cases warnings, could be applied to food packaging and at the point of sale to assist consumers, but also to signal the importance of nutrition and give it greater emphasis.

- A more engaged NHS-patient relationship could be established, based on reciprocity and commitment, but stopping short of punitive sanctions like withdrawing care or charging for treatment. General practices would be a source of persuasion and advice on nutrition and exercise. A more formal agreement could be made between the general practitioner and obese (or any at-risk) patient

\textsuperscript{59} Health Survey for England 2001 (22%); Central Health Monitoring Unit, Department of Health 1986-7 (9.5%).

\textsuperscript{60} Commonwealth of Australia (1998) Developing and active Australia: a framework for action for physical activity and health.

– establishing a ‘compact’ regarding diet and exercise (commitment and consistency).

Such social and psychological interventions might be backed up by economic and more universal policies, reinforcing the newly emerging social norms:

- improved regulated nutritional standards for common processed foods and drinks – fat and sugar content – could be a society-wide intervention, helping to ensure that benefits were not excessively polarised by social class;
- the government could explicitly recognise a ‘duty of care’ to children – which should also apply to their eating experiences in school; and
- The British Medical Association\textsuperscript{62} recently discussed proposals to raise tax rates on fatty foods as part of a drive to reduce the level of obesity-related disease in the UK. While some doctors supported the idea, others felt it would unfairly affect low-income families. However, there are no signs that any current Western government sees policies of this kind as either desirable or feasible.

(d) Cost effectiveness

The economic costs of unhealthy lifestyles are substantial. A report prepared by the Pharmaceutical Manufacturers Association of Canada established that non-adherence to advice on healthy behaviour patterns costs $7-9 billion per year in Canada alone. These costs are both direct (hospital, nursing home, ambulatory expenses) and indirect (decreases in work performance measured as sick days, premature death, etc).

An important benefit of the behaviour change approach is the potential to realise major improvements in cost-effectiveness. There may be major opportunities to spend NHS resources more cost-effectively by developing a co-production approach.

The efficacy and cost-effectiveness of such programmes is such that many are becoming mainstreamed in some countries. For example, programmes of lifestyle change promoted by the American doctor Dean Ornish – once regarded with scepticism – are now widely funded by medical insurance companies aware of their effectiveness at reducing cardio-vascular disease (CVD). Similar conclusions have been reached for the effectiveness of behavioural management of mental illness, asthma, headaches and back pain, insomnia, arthritis, hemophilia, HIV, MS, cardiovascular heart disease, and diabetes (see Box 8).

Box 8. Impact of behaviour change programmes in health care: the example of diabetes

The Bucharest-Dusseldorf study compared hospitalisation, crisis and mortality rates amongst two groups of 100 diabetes sufferers. The Control group was given conventional diabetes care, whilst the treatment group were put through an intensive programme of monitoring and self-management technique. The treatment group was found to have significantly lower rates of medical crises and hospitalisations.

Such behavioural interventions can appear to be expensive, but their efficacy is such that their cost effectiveness is high. For example, the Maine Diabetes Control Project established educational sites throughout the state of Maine to provide for diabetes self-management education. 461 people completed the course and the results (shown to the right) translated into a net cost savings of $293 per patient.

Note: Trials of self-management by diabetes sufferers have, in common with other similar trials, the limitation that control groups must always be given a basic standard of information and explanation as a requirement of medical ethics.

Example: cost effectiveness in control of cholesterol and CHD outcomes

The Wanless review\(^{63}\) concluded that interventions to change personal behaviour can be far more cost-effective than medical interventions, citing the example of ‘statins’ – drugs that are used to control cholesterol – compared with investment in smoking cessation.

“Although statins play a key role in managing the risk of CHD for those who are considered to be at risk, it is lifestyle choices around diet and smoking that create this risk in the first place. US estimates suggest that high cholesterol, which is due mainly to diet, accounts for 43% of CHD and smoking accounts for a little over 20%. In absolute cost terms, the NHS currently spends around ten times as much on statins as it does on smoking cessation programmes. In cost effectiveness terms, smoking cessation has been estimated to cost between £212 and £873 per quality-adjusted life year (QALY) compared to a range of £4,000 to £8,000 per QALY for statins. The link between statins and smoking demonstrates the importance of taking a ‘whole systems’ approach to health care: the need to strike the right balance between focusing on prevention and treatment and recognising how the focus on one may affect the cost of the other. So good progress in reducing smoking prevalence would have a beneficial impact on the use and cost of statins in the service.”

The example shows that a behavioural change approach can not only achieve the non-financial outcome (reduced heart disease) more cost-effectively, but that it can substitute for direct financial expenditures.

3.3 Crime and anti-social behaviour

The proposition ‘tough on crime, tough on the causes of crime’ implicitly recognizes that crime can be tackled both through penalties and through behaviour change strategies.

(a) Compacts and conditionality

The conventional approach to crime is characterised by the use of strict conditionality – penalties, punishment and incarceration – as its main mechanism for influencing behaviour. Clearly there is a large literature discussing the limitations and efficacy of this approach that cannot be reviewed here. The strengths and limitations of the ‘classical’ conditionality approach are illustrated by the estimate that the 30% increase in the UK prison population between 1997 and 2003, at significant cost, accounted for perhaps a sixth of the fall in crime in the UK over the same period.

However, it is worth noting that different models of criminal justice configure rights and responsibilities in different ways, and there are many different ways in which conditionality can be applied, such as ‘restorative justice’ and ‘re-integrative shaming’ (see below). Similarly, we tend to think of conditionality in relation to crime in a punitive, negative way, but conditionality can be applied in a positive way too.

\(^{63}\) Wanless D. Securing Our Future Health: Taking a Long-Term View. For HM Treasury.
For example, in the USA ‘graduation incentives’ involve paying a young person to stay on in school. In this case, the condition is that if you stay in school, you receive the benefit. Interestingly, the evidence is that this positive form of conditionality can often be rather more effective than the conventional negative forms (see Figure 10).

Tenancy agreements represent a relatively clear example of conditionality aimed primarily at reducing anti-social behaviour (see box 9). Tenants sign an agreement to behave in a certain way, and violation of this agreement can result in eviction. However, a limitation of such agreements is that they sometimes penalise innocent family members and in any event cannot be applied to many people, such as those in privately rented or owned accommodation.

**Box 9: Tenancy agreements: Irwell Valley Housing Association**

The Irwell Valley Housing Association operates a ‘Gold Service scheme’ which rewards good tenants. To qualify, tenants must have a clear rent account or an agreement in writing that they will pay off their rent arrears and commit no breaches of tenancy. In return, tenants receive quicker emergency repairs; priority modernisation; discounts on home contents insurance, fuel, funerals, and eye care; and a discount card to use in local shops and restaurants.

Over 80% of tenants are now members of the scheme. Evictions, voids and rent arrears have fallen. Costs have been reduced by 16%, arrears by 47%, staffing levels per property by 25%, and transfers to surpluses have risen 162%.

**Anti-social Behaviour Orders (ASBOs) and Acceptable Behaviour contracts (ABCs)**

Anti-social Behaviour Orders (ASBOs) were introduced by the Crime and Disorder Act 1998. Unlike tenancy agreements, they can be used with those in any accommodation and can target specific individuals. ASBOs enabled the police and Local Authorities – extended to social landlords and the Transport police by the Police Reform Act 2002 - to obtain an order to prohibit a person aged 10 or above from engaging in behaviours specified by the order. Violation of the order can result in criminal prosecutions and a custodial sentence of up to five years. Hence ASBOs make explicit that a behaviour is not acceptable, and impose a clear condition or punishment for those who breach the order.

A key advantage of ASBOs is that their imposition requires only a civil rather than criminal burden of proof (balance of probability rather than ‘beyond reasonable doubt’), they can be used on juveniles, and can be triggered by any behaviour ‘that caused or was likely to cause harassment, alarm or distress to one or more persons not of the same household’. A review of the use of ASBOs concluded that they could reduce anti-social behaviour in individuals given the order and in the wider group, and increased public confidence in the partner agencies (Campbell, 2002). However, downsides to ASBOs were that they were still relatively slow, taking an average of 66 working days from application to granting (though steps taken since are intended to

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speed up the process) and relatively expensive, costing an average of £5,350 each (though this includes staffing and police costs that might have been incurred anyway).

Acceptable Behaviour Contracts (ABCs) are written agreements between a young person, the local housing office or Registered Social Landlord and the local police in which the person agrees not to carry out a series of identifiable behaviours which have been identified as antisocial. The key difference between ABCs and ASBOs is that ABCs do not require the police or council to apply to a magistrate and they are not legally binding. Similarly, the young person is under no obligation to sign the agreement. Other differences are that ABCs can be used with children under age 10 and can include positive elements too, such as promising to attend school or seek work, though most commonly contain items such as ‘will not damage property’ or ‘will not verbally abuse passers-by or residents’. Breach of a contract could trigger the start of eviction proceedings or proceedings to issue an ASBO. However, the lack of sanctions makes ABCs more of a ‘compact’ than an enforceable contract.

An evaluation of ABCs in Islington, where ABCs are commonly acknowledged to have originated, is impressive (Bullock and Jones, 2004). Data for the 95 children placed on ABCs between 1999 to 2001 found that for the first six months of the contract, significantly fewer of came to attention for anti-social behaviour than in the previous six months (43% compared with 63% prior to contract). The overall number of antisocial acts committed more than halved (from 164 to 80).

A survey by the same authors of 42 police forces found that 39 of these had implemented at least one ABC scheme (Bullock and Jones, 2004). The majority of respondents felt that the scheme was positive and most were set up because of the perceived success of schemes elsewhere. Around 15% of ABCs were reported as having been breached – though this figure was 43% in the more detailed and perhaps reliable study of Islington (18% breached once, 12% twice and 12% three times or more).

If ABCs work so well, then why aren’t they used even more? Arguments against their use are that they lack formal sanctions and can act as a further delay before moving directly to a more serious measure such as an ASBO or criminal prosecution. Other police forces and Social Landlords prefer to use similar but more conventional approaches such as cautions and warnings.

(b) Alternative approaches to behavioural change in crime

From a legal point of view, ABCs – and to some extent ASBOs – appear rather weak. However, from a psychological perspective they have a number of key advantages. They can be used with much greater immediacy, radically reducing the lag between the anti-social behaviour and a clear signal that the behaviour is unacceptable (harnessing far more effective conditioning and avoiding the diluting of the effectiveness of distant punishments through discounting). They also exploit consistency and commitment through the use of an explicit contract – especially in the case of ABCs where they are signed voluntarily. For example, the Islington study

found that virtually all children subject to ABCs stated that they understood the contract, and 88% understood what would happen if they breached the contract and thought it was fair.

Graduation incentives may work because they play on the fact that losing money has a higher psychological cost than gaining some (aversion to loss) – losing the £50 in your pocket is more painful than gaining £50 is pleasurable. It may be that this principle can be more widely applied to reduce offending behaviour. For example, there may be scope for threatening young criminals with losing something (like a driving licence) rather than relying on conventional punishments or rewards. Similarly, this may prove to be one of the major policy benefits of extended baby bonds or capital endowments - all young people will have something at stake which might be lost through offending behaviour.

Another potential application of the psychology of behaviour change might be in the structuring of punishments. If the object of prison was to be maximally unpleasant, it should be characterised by sharp peaks of discomfort, and this discomfort should increase towards the end of the sentence (recency and peak effects). Viewed through a psychological lens, it is striking that most punishments have exactly the reverse pattern – a fairly constant and monotonous level of discomfort, and decreasing unpleasantness towards the end in anticipation of release. Of course, if the aim is to satisfy the public with retribution, and to offer a period of rehabilitation prior to release, then this consideration may trump the psychology of punishment.

(c) Interpersonal and community approaches (social context and norms)

One of the factors that is thought to contribute to the effectiveness of ASBOs and ABCs is the involvement of the family and other significant figures around the young person. Indeed, a major factor in the gathering of information about the offending behaviour is so that it is available for parents or carers to see and to enlist their support in addressing the behaviour.

Restorative justice66 is a response to crime that focuses on restoring the losses suffered by victims and holding offenders accountable more directly to the victim or community for the harm they have caused. It may lead to better outcomes by making the human harm and suffering caused more real and salient for the offender (availability and simulation), and by empowering the victim by giving them an opportunity to express their feelings (self-efficacy and closure). Furthermore, it creates opportunities for ‘reintegrative shaming’ – the offender is given an opportunity to apologise and make-up to the community the harm they have done, while the community can in turn forgive them. This process is important because it enables the offender to re-establish a more positive role and image – both in their own mind and in the expectancies of others – and to re-establish positive forms of social capital. These then act as a powerful informal force to direct the ex-offender away from anti-social behaviour towards more pro-social activities.

Interventions targeted at offenders’ primary social networks can also prove effective. Parenting classes have been found to be extremely effective both at changing parent

66 See the comprehensive web site: http://www.restorativejustice.org for more information.
behaviour and impacting on child behaviour – effects that are rapid and sustained. The Home Office reports that anti-social behaviour is reduced by 30% where parents of offending adolescents have attended parenting classes, most commonly to pre-empt a parenting order (compulsory parenting classes).

Box 10. Impact of parenting programmes

Research into the effects of parenting programmes designed to change the attitudes and skills of parents has shown that these programmes can influence behaviour and in turn influence outcomes.

Changes in parenting skills largely mediate the positive effects on children. Additional contributions are made through reduced maternal depression, less negative parental criticism, and the act of attending itself.

Source: Stephen Scott presentation to the Cabinet Office
Characteristics of successful parenting programmes are thought to be:

- a collaborative approach to working with parents rather than compulsory attendance;
- provision of practical assistance;
- presentation of an authoritative account of good parenting;
- specific skills and support;
- at least 20 hours in duration; and
- provision before children reach adolescence;

It is clear from this list that a successful parenting programme deploys many aspects of the most common behavioural change techniques: reciprocity, authority, commitment etc. A key question has been whether or not obliging parents of young offenders to attend parenting classes removes their effectiveness, but the initial results from parenting orders (which require parents to attend) have been strongly encouraging. Such classes have often ultimately been welcomed by the parents themselves, as they have given them the tools to interact more effectively and positively with their challenging children.

Changes in the physical environment (such as removal of graffiti and broken windows) can also influence the norms that affect crime. The term ‘broken windows’ was coined in New York for a style of policing which aimed to change social norms of acceptable behaviour by tackling visual signs of disorder, such as broken windows and burnt-out cars. In New York such policing is widely regarded to have been at least partly responsible for reducing the levels of crimes as diverse as ‘threatening behaviour’ and ‘drug-dealing’.

Finally, neighbourhood characteristics and community behaviour can have significant effects on crime. Work in the USA has shown how neighbourhoods with higher levels of ‘collective efficacy’ – where more neighbours know each other and are more likely to intervene in minor incivilities (such as children playing truant or teenagers hanging around) – suffer significantly lower levels of crime. These positive effects are found even having controlled for socio-economic factors and prior levels of crime, suggesting the effect is causal. The international evidence suggests that Neighbourhood Watch schemes are generally not effective at generating such collective efficiency, but it may be that bolder interventions, such as Neighbourhood Councils, would be.

68 In Britain the best example of such success remains the Youth justice Board evaluation of Parenting Schemes.
69 NYPD Battles Crime, Silverman.
70 See the work of Robert Sampson et al.
(d) Cost effectiveness: crime prevention through behaviour change

A clue to the cost-effectiveness of behaviour change, outside of the criminal justice system, can be gleaned from the Irwell Valley Housing Association reward scheme (box 9). It has been estimated that for every £1 spent on supporting the scheme, the Association has saved around £2 through reduced repairs, reduced voids and higher rental income – let alone indirect savings and improved quality of life for residents.

Rand Corporation\textsuperscript{72} considers four different approaches to intervening early in the lives of children at some risk of eventual trouble with the law (see Figure 12). The earliest interventions might be targeted to such families identified as at-risk, while programs for older children could be based on their behaviour. The ‘three-strikes’ concept of imposing long sentences for a third offence is compared with the following alternative approaches:

- Home visits by child-care professionals beginning before birth and extending through the first two years of childhood, followed by four years of day care. The visits are intended to provide guidance in perinatal and infant care and ward off the likelihood of abuse or neglect, both of which are associated with troubled childhoods.
- Four years of cash and other incentives to induce disadvantaged high school students to graduate.
- Monitoring and supervising high-school-age youths who have already exhibited delinquent behaviour.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure12.png}
\caption{Diverting children from a life of crime \textit{(source: see footnote 72)} }
\end{figure}

\begin{itemize}
\item Serious crimes averted per million dollars \end{itemize}

<table>
<thead>
<tr>
<th>Approach</th>
<th>Serious crimes averted per million dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home visits and day care</td>
<td>0</td>
</tr>
<tr>
<td>Parent training</td>
<td>50</td>
</tr>
<tr>
<td>Graduation incentives</td>
<td>250</td>
</tr>
<tr>
<td>Delinquent supervision</td>
<td>50</td>
</tr>
<tr>
<td>Three strikes</td>
<td>0</td>
</tr>
</tbody>
</table>

The Rand analysis suggests that in terms of preventing serious crime, two types of early investment – parent training and graduation incentives are more cost effective than either a very early intervention or the more punitive three-strikes regime.  

3.4. Schools and education

(a) Compacts and Conditionality

As in health, there is direct conditionality that links the individual’s behaviour to long-term outcomes. Those who work hard and succeed in education go on to earn more, and arguably have more satisfying lives, than those who leave school early or without qualifications. Indeed, the relative financial returns to qualifications in the UK are among the highest in the world.

Educational Maintenance Allowances (EMAs) introduce a form of conditionality into benefits for education. Young people from disadvantaged backgrounds are paid a benefit conditional on school attendance. Failure to attend leads to a trimming of the benefit, and possible loss of end-of-term bonuses (cf graduation incentives, above). Piloting suggested some benefits from the enhanced personal responsibility in terms of ‘assisting the young person’s transition to adulthood’. Piloting also showed significant improvements in attendance – it was estimated that full EMAs led to an increase in participation amongst those eligible by 7%, with the largest effects seen in young men and those living in rural areas. The scheme is to be rolled out nationally from September 2004 providing up to £40 per week for young people aged 16-19 to stay on in education.

However, an over-application of benefit conditionality in education, especially at younger ages is problematic. Ultimately the learner needs to be self-motivated, and the use of extrinsic rewards (such as money or rewards) can undermine the intrinsic rewards of learning – a dissonance effect. This was shown in a classic study of primary school children who were either given external rewards for colouring or were just given the opportunity. At a later point, the children were again given the opportunity to do colouring but without rewards. It was found that those children who were previously rewarded for colouring were very much less likely to engage in it – the extrinsic rewards appeared to have made the activity seem less attractive to the children.

Ethical considerations also weigh heavily. Most people would consider it inappropriate to place excessive personal responsibility directly on the shoulders of

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73 This is not to say that home-visits or day-care are not worth pursuing for other reasons (such as the educational, work or health benefits they might provide) but that in terms of focusing spending on reducing serious crime they represent a relatively expensive way of preventing criminal behaviour. Indeed the cost-efficiency of graduation incentives is largely due to the fact that they can be more effectively targeted at those at risk of moving into serious criminal behaviour.

74 See documents available at www.dfes.gov.uk/ema

children. Attention has focused on the responsibilities of the child’s family and the adults in their home in the form of ‘home school agreements’.

**Example: Home-school agreements**

The government has encouraged greater use of ‘home-school agreements’ to clarify and formalise the relationship between the family and the school. The School Standards and Framework Act 1998 made home-school agreements compulsory for most schools. Figure 13 below shows an example of a home-school agreement in which joint and individual responsibilities of the school and family are set out. Other home-school agreements include a set of responsibilities for the pupils and governors. Some may have an agreement with each individual pupil, aiming to set individual expectations.

Agreements differ in specificity between schools, generally covering a core of common issues in relation to appearance, attendance, homework and discipline. There are additional terms in some agreements, for instance in relation to taking family holidays during term time. Other conditions are not permitted under the law – for example a requirement to make payments or conditions that are intolerant of religious differences.

The agreement is an important reference document for conduct in the school, and it binds the parent to responsibility for some aspects of the conduct of the pupil. Although the home-school agreement is expressed quite formally in some cases, there are legal restrictions on how much conditionality can be applied (see Box 11).

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**Box 11. Sections 110 and 111 of the School Standards and Framework Act 1998 Home-School Agreements**

- Breaches of the terms of the agreement will not be actionable through the courts

- A child must not be excluded from school, nor should a child and/or his or her parents suffer any other adverse consequences on account of his or her parents' failure or refusal to sign the parental declaration

- The governing body or the LEA, where it is the admissions authority for the school, must not:
  - Invite a parent or child to sign the parental declaration before the child has been admitted to the school
  - Make the signing of the parental declaration a condition of the child's admission to the school
  - Base a decision as to whether to admit a child to the school on whether his or her parents are or are not likely to sign the parental declaration

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However, in two areas – truancy and mis-behaviour at school – policy has been developed further.

**Truancy**

In the area of truancy, the government is moving towards a much stronger policy aiming to engender greater parental responsibility, making use of the Education Act.
The school or Local Education Authority can warn parents that they face prosecution if they do not remedy the truanting behaviour of their children.

A pilot ‘Fast Track to Prosecution’ has shown that in its first six months of operation almost 1500 parents of persistent truants were given the chance to improve their child’s school attendance or face legal action. In the event, only 50% of cases needed to reach the courts as the parents, faced with the prospect of prosecution took action to get their children back into school. In total, 5,381 parents were summoned to court across 93 local education authorities last year – equivalent to 57-58 prosecutions per authority with the majority of those interviewed agreeing that prosecution was the right course of action77.

**Misbehaviour at school**

The Anti-Social Behaviour Bill introduced in March 2003, includes a new range of parent contracts, with stronger conditionality, for dealing with problem pupils. Parenting contracts for truancy and misbehaviour, parenting orders for serious misbehaviour in schools and penalty notices for truancy are being introduced by the Bill as a balanced package of support and sanctions to reinforce parental responsibility for school attendance and behaviour. Parenting orders require compulsory parenting classes and are already in use with some success with the parents of young offenders (see section on crime, above). This would extend their use to parents of disruptive pupils.

Parenting contracts are intended to be a supportive provision that will enable formal agreements between parent and school or parent and the LEA in which each side sets out the steps they will take to secure an improvement in the child’s attendance and behaviour. Some parents seek such help themselves, but others need a more directive approach and the Anti-social Behaviour Bill is intended to enable this.

The rights and responsibilities of pupils in relation to discipline can be underlined with temporary exclusions, typically lasting two or three days for a quite serious breach of discipline. The purpose of such exclusion is to emphasise the behaviour is outside the school’s acceptable norms. Through a reintegration interview the parents are involved in the process of readjustment. Again, the effect is to bind the parent into the responsible behaviour of their child.

**(b) Additional approaches**

As in health, the compact between family and school, and between student and school, employs a number of behavioural influences. The contract harnesses *mutuality, commitment and consistency.* Similarly, though often portrayed as simple financial incentive, EMAs harness similar influences. For example, one of the conditions of qualifying for the pilots (in England) was that a ‘learning agreement’ be signed between student and the school or college. Analysis of the pilots found that 72% of young people had retained a copy of their learning agreement, and almost all of them recalled at least one specific commitment it contained (Deardon et al, 2001).

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The wider literature suggests that the more that these ‘co-production’ influences are highlighted, rather than the extrinsic cash ‘reward’, the more likely it is that such schemes will succeed in driving not just participation but attainment and a transformed attitude towards learning. In this respect, it is striking that although EMAs have had clear positive effects on participation, the first year of academic attainment results have ‘not been as dramatic as expected’. Extrinsic rewards generally achieve ‘compliance’ and create an important opportunity, but ‘conversion’ – in this case to a passion for learning - rests more on intrinsic and interpersonal factors.

One way of achieving greater commitment to school-student/family contracts would be to introduce greater flexibility and room for negotiation. Students and families are likely to feel considerably more committed and connected if they feel that they had some genuine input into the contract, such as if it acknowledged a student’s particular interests, wishes or difficulties. The dialogue that this would necessitate would also create a stronger sense of mutuality and strengthen the interpersonal relationship between the school and the family.

Other insights from theories of behavioural change can be applied to education, as most teachers intuitively know. Positive feedback loops that build the learner’s sense of self-efficacy are a powerful force. Studies have shown that early positive feedback leads to significantly higher effort and subsequent attainment. Similarly, it is important that targets and testing are harnessed to give the child a sense of their own progress against their own past performance (not just relative to peers).

Another simple application of theories of behavioural change is the use of liking and affiliation. We are more influenced by those we like and respect than those we don’t. A good example of the use of this effect is the ‘playing for success’ campaign – where at-risk children are taught maths through programmes based at prominent football clubs. This is arguably one of the most successful and cost effective educational interventions of recent years, and rests heavily on a positive association with the glamour and excitement of football.

(c) Community approaches

Once again, parent-school and student-school contracts to some extent work because they lever community or ‘ecological’ effects. For example, the fact that all parents at a school sign contracts helps not only to encourage behaviour on the individual level, but to make explicit and embed a set of social norms. Similarly, EMA pilots suggested that part of their positive effect arose from peer group effects:

“Some people don’t stay on because their friends leave, but the money means that there’s now a larger group staying on.” [Quote from a young person in the Evaluation of Maintenance Allowance: Evaluation of the East Ayrshire Pilot, Scottish Executive, www.scotland.gov.uk]

The social capital literature has explored the effects of social norms on educational attainment, and has shown clear school and community effects. Essentially, there is a
powerful influence of peers and other parents over and above the child’s own socio-economic and family background. This effect can be positive or negative, depending on the prevalent attitudes, abilities and social norms of the community. Figure 14 illustrates this point. Generally children at schools with more highly educated parents achieve more GCSE passes – an effect that holds controlling for the proportions of children on Free School Meals, and whether or not their parents spend time socialising with other parents. But in those at schools with parents with the lowest levels of education, children whose parents socialise with other parents tend to do significantly worse\textsuperscript{78}. This negative effect may reflect an inadvertent reinforcement of less ambitious educational aspirations.

The importance of social and educational norms, and the way that they are embedded in the social context, suggest that interventions may be more successful when targeted at changing the social norms of a whole peer group at once. Mentoring programmes that are targeted at a whole school class have achieved some remarkable successes. For example, the ‘I have a dream’ programme in the US was found to double the graduation rate of at-risk young people from 35\% to 70\%\textsuperscript{79}.

![Figure 14. Academic performance by parental education and extent of parent-parent networks](source: see footnote 77)

It is instructive to compare the successes of these whole class schemes to those of interventions that are instead targeted at individual underachievers. For example, a recent experiment in the UK targeting “under-aspiring” children\textsuperscript{80} found that those identified and then given extra support by their school actually achieved significantly worse results in their subsequent GCSEs. It appears that mentoring interventions that

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\textsuperscript{78} Analysis from John and Halpern (forthcoming).


\textsuperscript{80} See http://yellis.cem.dur.ac.uk/research/underaspirersexpt.asp
target individuals as opposed to whole peer groups can sometimes do more harm than
good because they stigmatise the individual and highlight their lower aspirations,
rather than change peer group norms and pressures.

In general, therefore, policies that empower parents to work more effectively together,
that harness peer group pressures, and that reinforce pro-educational norms should
lead to better educational outcomes. Parental involvement in their children’s
education, frequent communication between schools and parents, and perhaps even
strengthening the powers of parents collectively to affect their school’s practices or
management, may all lead to better outcomes.

(d) Cost effectiveness

EMAs have been effective at boosting school attendance, but it is too early to know
their long term and wider impacts on earnings, crime and so on. Similarly there is
little data on how the details of implementation – the profile given to the contracts etc
– impacts on outcomes.

The ‘Playing for success’ scheme has been shown to have been highly cost effective.
Early interventions such as Surestart, designed to shape behaviour early in life, are
suggested by American evidence to be cost effective, though more because of their
impact on reduced crime and greater employment late in life rather than because of
boosted educational attainment. However, in general the issues highlighted here
remain in the ‘black box’ of practices on the ground. In principle, the cost
effectiveness of such approaches should be extremely high, as they mostly concern
variations in practices using the same resources. This fits with the macro-level finding
that national variations in educational attainment relate only modestly to national
spending levels on education.

3.5 An over-arching logic: helping people help themselves

A theme that runs through these applications is that a key role of the state is to
encourage in us behaviour that is in our own best interests. Most people would prefer
to lead more productive, healthy and socially rewarding lives. Yet sometimes
everyone engages in behaviours that they may regret or that do them harm, or harm to
those around them.

There is a potential tension between, on the one hand, an agenda of encouraging
‘personal responsibility’ and, on the other hand, of the shaping of the determinants of
personal behaviour by the state. How can this be resolved? One solution is to
recognise that policy can have twin goals which operate together - policy must at once
empower and give choices, but at the same time policy should set the default to be in
the best interests of individuals and the wider public interest. To be effective, this twin
approach needs to be built around a sense of partnership between state and individual.

Hence in employment, while individuals are not ultimately forced to work, the strong
default pressures are that they will. In education, young people are not forced to stay
on in school and acquire qualifications, but the default pressures are that this is what
they do. And in health, governments do not ban unhealthy foods or smoking, but seek to refashion the behavioural pressures towards healthier choices.

An elegant and important example of this approach has been provided in the area of pensions. Most people feel that they should save for their old age, but many don’t – either individually or collectively.

In the USA, a three-year trial was conducted within which employees were provided with an innovative pension scheme. The basic idea was simple. The scheme was set up so that whenever the employee got a pay rise, a portion of this additional income would be directed into their pension. Employees could opt out of the scheme at any time. In fact, employees were generally very happy with the arrangement, and few opted out. The results of the trial were remarkable. It was found that the average pension savings rate rose from around 3% to over 11% over the three-year trial – an unprecedented shift. Several US states are now considering the introduction of the scheme.

The reason why the scheme worked so well was that it reflected the grain of human cognition. By avoiding asking for any contributions from existing earnings, the scheme avoided disproportionate psychological pain of loss. By taking contributions only out of pay rises, the individual does not feel the loss as sharply as no adaptation will have occurred to the higher earnings. Furthermore, agreeing to forgo future as yet unearned income made the contribution feel much smaller because of psychological discounting. The scheme was also helped by being organised by a trusted source, the intent behind the scheme was explained and seen as good, and the individual retained a sense of control through the option of being able to back out at any time. Finally, being organised across the firm harnessed social proof as colleagues entered into the scheme at the same time.

Another way to reconcile the emphasis on personal responsibility with policies designed to change behaviour is to make more use of intermediate organisations. There is long experience that voluntary and self-help groups can be much more effective at changing chosen behaviours than directives from state organisations. These may take many different forms: parents sitting as school governors changing the culture of parental engagement; self-help groups organised around particular medical conditions providing mutual support; and neighbourhood level organisations reinforcing changes in norms where antisocial behaviour has become prevalent.

4. Challenges

Any government seeking to implement the approaches described above is likely to face some common. These broadly fall into the following categories:

- Public acceptability
- Efficacy of interventions
- Limits to conditionality
- Effects on inequalities
- Relationship-building in the public sector
- Personalisation and cultural differences
- Collective responsibility

4.1 Public acceptability

Although there are areas where the public expects government to act (for example, drink driving) there are others where the public is less sure of the government’s appropriate role (for example, banning smacking of children). On the one hand there is a desire for government not to interfere within people’s personal lives and choices. On the other hand, there is also a growing awareness of causal responsibility and a desire for people to get the rewards (or suffer the consequences) of their own choices and decisions.

Broadly, the public recognises a legitimate role for the government to intervene where there are significant externalities to behaviour - i.e. individual behaviour creates costs or benefits for others. For example, robbery clearly creates significant negative externalities and government is expected to intervene to discourage that behaviour. Similarly, for behaviours which generate significant positive externalities – such as charitable giving – government can legitimately act to encourage that behaviour.

For issues such as wearing seat-belts, where behaviour mainly impacts on the individual concerned – i.e. significant externalities do not exist – governments must exercise far greater care in deciding whether or when and how to intervene. Figure 15 below shows the broad area in which government interventions can be described as paternalistic and therefore where far greater caution is required for interventions to be both acceptable and democratically justifiable. Note that people seem more accepting of state intervention to reduce negative externalities – behaviour that have an adverse effect on others – than of intervention to increase positive externalities. This may reflect our aversion to loss (someone taking something from us) and our self-serving attributional biases (we tend to claim credit for good fortune, but blame others when things go wrong).
In many cases there may be a need for public debate to establish a consensus behind new policies to promote behaviour change. In highly individualistic societies, which place a high premium on personal autonomy, it is vital that there is wide understanding of the need for any policies focused on behaviour change. Otherwise they are likely to be seen as illegitimate – and as a result less effective. For example, there is likely to be fairly widespread public acceptance of a prominent role for GPs in pushing and agreeing lifestyle change, or for welfare services in encouraging greater responsibility on the part of claimants. In the context of the recent public debate about the legitimacy of patient-doctor contracts, Lyndel Costain of Dieticians in Obesity Management UK said it would be good for the nation's health if more people improved their lifestyles, but she warned that, “there's nothing like being told to do something to make you dig your heels in. And this might stop people going to see their doctor” (see psychological reactance, above).

Parenting presents a powerful example of an issue in transition. A few years ago there was strong resistance to parenting classes. These were seen as unnecessarily intrusive interventions into private life. However, it is now more widely accepted that parenting involves complex skills that are not innate and there is also ample evidence of the efficacy of such behavioural programmes.
4.2 Efficacy of interventions

Public attitudes towards the acceptability of a role for the state in influencing behaviour appear to be only loosely associated with the actual efficacy of Government intervention. For example, interventions to curb drug use have been popularly supported despite relatively modest evidence of significant impact.

One key question concerns the relative efficacy of early versus late interventions aimed at changing behaviour. Generally speaking it is thought that behaviours and habits are shaped early in life, which makes the case for early intervention as well as emphasising the importance of parents, siblings and other significant influences early in life. Against this, later interventions – such as targeted on anti-social behaviour – can be much more efficiently targeted. But probably the most simple and important point is that consistency matters – behaviour is most powerfully shaped when all the influences on a young person, from infancy to adulthood, point in the same direction.

4.3 Limits to conditionality

Punitive conditionality (often in the form of fines or the withdrawal of some benefit) is perhaps the most commonly understood means for Government’s to influence behaviour – and the most controversial. In many cases punitive conditionality has worked much better than critics expected. It has also reshaped norms in subtle ways (welfare to work for example has achieved notable impacts on attitudes to work). In other cases, however, there may be counter-productive outcomes. For example, conditionality in benefit payments can negatively affect parents and therefore mitigate against success in achieving child poverty goals.

For some, one of the answers to the problems of punitive conditionality is ‘rewarding conditionality’ – practices which reward particular behaviour with advantages in terms of services or benefits (see for example, box 9 on page 48). This seems less likely to be damaging to wider goals and might also be effective in influencing behaviour. If rewards are made available for positive behaviour, such as movement up hospital waiting lists for those who give up smoking, then that behaviour may well be encouraged. However, should take-up of such an incentive be widespread it is not clear whether this could remain a positive conditionality or if in fact it would just become a form of punitive conditionality (against those refusing to give up smoking in our example).

As described above, many of the emerging ‘contracts’ within health and education avoid formal or punitive conditionality, but nonetheless retain key persuasive elements. However, where such compacts lead to a widespread expectancy of the behaviour in question, the public may also come to expect sharper conditionality to cement the new social norm, and especially where significant social externalities exist. The gradual change of attitudes towards wearing seatbelts, not drink-driving, and not smoking in public areas represent past examples.
4.5 Effects on inequalities

Sometimes behaviour change policies can widen class differences and inequalities. For example, quicker health treatment as a reward for adopting healthier lifestyles might encourage significant behaviour change as a whole, but would move away from the principle of provision on the basis of need and could worsen health inequalities. The widening social class gap in smoking is perhaps the most well-known example of this issue.

4.6 Relationship-building in public services

Commercial organisations are increasingly focused on building customer relationships rather than driving transactions. The prevalence of schemes such as loyalty cards and the focus on brand identity illustrate this trend. By focusing on building long-term sustainable relationships, commercial organisations are relying on their ability to shape demand (effectively influence attitudes and behaviour) and so maintain customer support even where they are not always the most attractive organisation for any individual purchase. Private gyms, for example, now aim to agree workout programmes with clients, knowing that this is the best way of maintaining interest and reducing cancellations. Gyms will often even telephone those who have not attended for periods of time to try to enthuse them into attending. Although such attendance is actually detrimental to securing new customers (the gym will be busier) these organisations are aware that only through maintaining a relationship are they likely to profit in the longer term.

Public services are now catching up with their commercial comparators in terms of transaction speed and efficiency (e.g. NHS Direct) but are not currently organised or motivated to build relationships. For example, NHS Direct has no capacity to recognise callers or follow-up on health advice. Traditionally many public services have sought to manage demand down rather than up.

4.7 Which preferences? Personalisation, cultural differences and our many selves

The emphasis on personal relationship building implicitly recognises that people are different and wish to be treated in a way that respects their individuality – hence that as far as possible public services should be ‘personalised’ or tailored around the needs and wants of the individual.

However, the outline review presented here does not explore the psychology of individual or cultural differences in any detail. Individuals and cultural groups differ in their sensitivity and susceptibility to different forms of influence. Similarly, the question arises as to whether school-family or GP-patient contracts should be ‘one-size-fits all’ documents, or whether students, families, patients and so on should be able to shape them to fit their own needs and values.

Finally, we must recognise that even within ourselves we may not have a clear set of preferences. There are often marked discrepancies between what we would choose
today versus what we would choose – even for ourselves - for tomorrow. Thinking about tomorrow we choose to eat better, to exercise, and to make that overdue call to a lonely friend. But for today we choose the fast meal in front of the TV. Which preferences should we give most weight to – as policymakers or citizens – those expressed in our immediate choices, or those expressed in our better intentions for tomorrow?

4.8 Collective responsibility

This paper has argued that effective behavioural change rests on an ecological approach, and sometimes on changing long-established social norms. For such behavioural change programmes to work, it is important that they are acceptable to the public.

In some areas, new knowledge and understanding shows us that previous expectations of personal responsibility may be wrong, such as where genes play a strong role. More often, the causal story is complex and mixed, with implications for both personal and collective responsibility. And in some areas, even though a strong case may be made for personal causal responsibility, the public may nonetheless collectively elect to hand this responsibility back to the community or state, or at least to have the defaults set to be in the likely public interest.

Hence, personal responsibility should not be seen as being in tension with collective responsibility. An individual parent, patient or citizen can often achieve considerably more when they act in concert with those around them, reinforcing and supporting the change in each other. Mechanisms that strengthen the ability of groups of individuals to take collective responsibility – within schools, health services, and local communities – are an important part of this wider agenda too.
5. Conclusions

It is increasingly accepted that the public have a central role to play in improving outcomes in public services and achieving environmental goals.

This paper has set out a body of theories, evidence and possible policy applications. The field remains relatively underdeveloped. Many more policy makers are familiar with economic principles or law than with psychology. There have been few attempts to pull together the knowledge base in a systematic way, and policies to influence behaviour are often ad hoc.

Despite this, some of the most effective emerging policy interventions of recent years rest as heavily on psychosocial effects as on economic logic – including school-parent and doctor-patient ‘contracts’, parenting classes, and active welfare policies. What may appear to be small changes in the construction of policies or practices can lead to dramatic changes in outcomes. For example, changes in default rules in relation to savings schemes or organ donation can prompt rapid changes in behaviour.

Looking to the future there is an evident need to strengthen our theoretical and empirical understanding of what drives behaviour and behavioural change. Just as important will be the wider testing out of policy tools to develop a more sophisticated toolkit for policy-makers. Policy should not simply proclaim personal responsibility or blame, but needs to be shaped around the ways in which people actually think and feel, and the social and psychological forces that influence behaviour.

**Figure 16. Stylised models of citizen-state relationships**

1. **Consumer model**
   - Citizen as consumer has services delivered to them, even if from a list of options

2. **Individualised co-production**
   - Policy outcomes ‘co-produced’ between citizen and service provider, leading to better impact

3. **Full co-production**
   - Citizen ‘co-production’ extends into the design of services, policies and practices themselves
Ultimately, this is not just about the government and its agencies learning a few extra techniques to ‘make people eat their greens’. Rather it is about helping individuals - and communities - to help themselves. A more sophisticated approach enables governments to do this in ways which command greater public engagement and therefore greater effectiveness (Figure 16). Hence the use of compacts, conditionality and more sophisticated methods of encouraging behavioural change is only part of the story. An equally important part of ‘co-production’ is that there be a partnership in the writing of such compacts and conditions, and in the design and authorisation of more sophisticated methods of behavioural change, between state and citizens and between citizens themselves.

Policy tailored around a more realistic understanding of how people really do make choices and engage in society - twinned with sustained dialogue over the implications for the citizen’s and state’s responsibilities - should lead not only to more effective policy. It should also enable citizens to feel more in control of their own lives.
This is an issue paper for discussion purposes and does not represent Government policy.