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Behavioural economics and the risks of tax administration

Simon James*

Abstract
Tax Administration is a risky business. When taxes are not well administered, tax morale may be undermined and unnecessary administrative and compliance costs incurred. Mainstream economics and the self-interested rational choice model provide a powerful contribution to understanding the effects of taxation but that analysis has not always been enough to avoid serious and expensive difficulties. Behavioural economics has been making an increasing contribution to understanding how tax administration may be improved. Some of the assumptions of mainstream economics have been subject to close scrutiny and DellaVigna (2009) summarized deviations from the standard model as non-standard preferences, non-standard beliefs and non-standard decision-making. In recent years considerable analysis and evidence have been presented on the importance of aspects such as fairness in taxation, the endowment effect, framing of decisions, limited attention, loss aversion and mental accounting and their impact on the operation of a tax system. A risk management approach to tax administration has been developed by the European Commission, the OECD and others. One area that has received less attention than may be appropriate is the performance of tax agencies themselves. This paper therefore outlines the contribution behavioural economics can make to existing approaches in reducing the risks of tax administration and extends it to the performance of tax authorities themselves.

1. INTRODUCTION

Challenges in dealing with taxpayer behaviour and the risks of tax administration are as old as taxation itself. A remarkable example is that, when income tax was first introduced in the UK in 1799, it was thought unacceptable that taxpayers should be required to disclose the precise level of their incomes. To deal with the obvious risks involved, the response was to require that taxpayers should declare that the tax paid was not less than the required 10 per cent of their income. As Pitt explained in introducing the income tax:

> The statement of income is to proceed from the party himself. In doing this it is not proposed that income shall be distinctly laid open, but it shall be declared only that the assessment is beyond the proportion of a tenth of the income of the person on whom it is imposed. In this way, the disclosure at which many may revolt may be avoided (Pitt, 1798).

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This led to a form of declaration given in an Act (39 Geo 3, c. 22) passed three months after the original Act, and shown in Figure 1 – and one of the simplest tax returns ever.

Figure 1 The Original UK Income Tax Return.

I do declare that I am willing to pay the sum of for my contribution for one year, from the fifth day of April until the fifth day of April in pursuance of an Act passed in the thirty-ninth year of the reign of His present Majesty intituled…[the full name of the Act was entered here] and of another Act for amending the said Act: and I do declare that the said sum of is not less than one tenth part of my income, estimated according to the directions and rules prescribed by the said Acts, to the best of my knowledge and belief. Dated this day of

Signed

To deal with the risk the Commissioners could demand further information and a hearing. Nevertheless, after the taxpayer had stated his case at the hearing and made an oath as to the truth of his return, he:

> shall not be compelled to answer; his books shall not be called for, not his confidential clerks or agents examined. If, however he declines to submit to the investigation of his books, and the examination of his clerks, and other means of ascertaining the truth, it shall be competent for the Commissioners to fix the assessment, and their decision shall be final, unless he appeals to the higher Commissioners. No disclosure is necessary, but if the party is unwilling to disclose, he must acquiesce in the decision of the Commissioners, who shall not be authorised to relieve without a full disclosure (Pitt, 1798).

Since that time, the level and complexity of taxation have risen enormously and so has the pressure to deal with non-compliance. Behavioural economics has also been developing rapidly and adds to the contribution of more traditional analysis of economic behaviour. Mainstream economics has made a considerable contribution to understanding taxation but its basic assumption of self-interested rational behaviour narrowly defined does not give a good explanation of tax compliance. The penalty for ordinary tax convictions is usually modest, the chance of detection often trivial and yet most individuals pay their taxes. Hence some further explanation is required (Posner, 2000, p. 1782).

Sometimes the limitations of the mainstream approach are dramatically exposed. At a briefing by economists on the credit crunch at the London School of Economics on 5 November 2008, the Queen was reported as asking why no one saw the credit crunch coming. Her Majesty's question was debated by economists and others at a forum at the British Academy and their response indicated the importance of factors not

normally included mainstream economic analysis – such as 'wishful thinking', 'a psychology of denial', and 'the psychology of herding' (Besley and Hennessy, 2009, pp. 2-3). Furthermore, the Queen was advised that 'Everyone seemed to be doing their own job properly on its own merit. And according to standard measures of success, they were often doing it well' (ibid., p. 3).

Behavioural factors can improve understanding of such events including tax compliance and non-compliance. As described further below, the behavioural approach draws on a wider range of assumptions than purely 'rational' ones in understanding individuals' actions. One particular example is that it is conceptually better placed than the 'rational' approach to give issues of fairness and 'tax morale' the importance they deserve.

Tax systems have, of course, taken account of phenomena described by behavioral economists, even if they were not explicitly recognized as such. For example, withholding at source, which can be traced back to the sixteenth century in England (Soos, 1995), deals with phenomena now described as the endowment effect, loss aversion and status quo bias. Nevertheless, taking account of such factors more explicitly may improve compliance more generally and systematically. This is particularly true because measures to improve compliance have often taken the form of mechanistic and relatively simplistic arrangements regarding auditing and penalties on the assumption, implicitly or explicitly, that taxpayers are motivated to comply with the tax system only on the balance of the associated financial gains and losses. They may also, of course, be motivated by other factors. Furthermore, it has always been clear that some areas of taxation are more likely than others to have a higher risk of uncollected taxation and consequently have been subjected to a greater level of enforcement activity. In recent times more systematic approaches have sometimes taken the form of developing risk management procedures. The paper therefore begins with a discussion of risk management in the present context in Section 2 followed by the contribution behavioural economics adds to more 'rational' approaches in Section 3. Section 4 turns to the related area of responsive regulation in taxation.

A relatively under explored application of the behavioural approach is the contribution it may make with regards to the performance of tax agencies. External change and management fashion (see Abrahamson, 1966) can pose serious risks to the functioning of organisations including tax authorities. In Section 5, this paper therefore turns to the management of tax agencies. It examines some of the risks of a 'rational' approach to management reform and the importance of a behavioural perspective. Some of issues are illustrated by drawing on radical changes to UK tax administration. Finally, Section 6 draws some conclusions.

2. RISK MANAGEMENT AND TAX ADMINISTRATION

Within the study of management, 'risk management' has expanded dramatically in the last twenty years, developing from an element of management control to an aspect of good governance for many organisations. Despite this huge growth and the impressive development of concepts and techniques (see for example, McNeil, et al. 2005) it can still be argued that risk management 'is first and foremost about sound general management' (Culp, 2001, p. ix) and that perhaps it is not all about real hazards and

opportunities but quite a lot about organisational accountability and legitimacy (Power, 2007). It is therefore relevant to examine not only risk management with respect to taxpayers, of which there is an existing literature, but also risk management with respect to the conduct of tax administrators more generally, about which less has been said in this respect.

The European Commission's Risk Management Guide for Tax Administrations (2006, p. 13) described risk management as 'taking deliberate action to improve the odds' of good outcomes and reducing the odds of bad outcomes. It is not a magic formula that will always give the right answers but it is 'a way of working and thinking that will give better answers to better questions'. Interestingly, the EC guide goes on to suggest that the concept of risk has its roots in the ancient Italian maritime trade – from the concept of uncertainty and possibility of loss. Risks consist of the characteristics of 'vulnerability, severity or significance and relative occurrence or frequency'. The European Commission's Guide also states that 'Risk analysis also involves the why question: why is the taxpayer behaving in a particular fashion. This is important because it contributes to the assessment and the choice of the most efficient and effective form of treatment' (p. 6).

The OECD's (2004, p. 37) Compliance Risk Management cites the analysis of James et al., (2001) in identifying two main approaches to examining compliance. The first of these is based on economic assumptions of rationality of the sort mentioned above with a reliance on penalties. However, there has been an increasing awareness that understanding the factors influencing taxpayers' behaviour may also have an important role to play and this is examined further in the following section. The OECD (2004, p. 8) formally describes compliance risk management as a 'structured process for the systematic identification, assessment, ranking and treatment of tax compliance risks' such as the failure to register or the failure to report tax liabilities properly. The OECD outlines the way a compliance risk management process may be applied by a revenue authority in the following stages:

Identify risks
Assess and prioritise risks
Analyse compliance behaviour (causes, options for treatment)
Determine treatment strategies
Plan and implement stages.

The two stages that may benefit most from a behavioural approach are the analysis of compliance behaviour and determining 'treatment strategies'. The process would continue with the compliance outcomes regarding registration, filing, reporting and payment being evaluated and performance measured against plan. As the OECD (2004, p. 8) points out this is consistent with the existing management literature which has also been applied more generally, for example by James and Edwards (2007) to income tax.

The International Bureau of Fiscal Documentation (2012) provides an online collection of tax compliance arrangements in different countries including a guide to tax risk management for designing an internal structure and strategy for minimising the unintended risks of non-compliance. A further contribution by Thompson (2008)

on behalf of the Caribbean Organization of Tax Administration illustrated the principles and application of risk management and how tax authorities may use them to improve voluntary compliance.

An additional point has been made by the OECD (2009): that large businesses are increasingly considering tax risk management as a specific element of corporate governance. In examining the experience of three countries – Australia, Canada and Chile - the OECD found that 'large businesses that have good corporate governance and more transparent relationships with tax administrations can expect fewer audit interventions and greater certainty'.

3. THE CONTRIBUTION OF BEHAVIOURAL ECONOMICS

The academic literature relating to behavioural economics is now very substantial. Schwartz (2008) and Wilkinson (2008) have both provided introductions and collections of papers on behavioural economics have been edited by Altman (2006), Loewenstein, (2007), and Maital (2007). There is also a collection of readings specifically on behavioural public finance edited by McCaffery and Slemrod (2006). There have been specific applications to taxation – for example, Congdon et al. (2009) related behavioural economics and tax policy and Reeson and Dunstall (2009) examined the implications of behavioural economics and complex decision-making for the Australian tax and transfer system.

Behavioural economics has been described as increasing the explanatory power of economics by providing it with more realistic psychological foundations' Camerer and Loewenstein (2004, p. 3) though it also draws on other disciplines. Its approach involves modifying 'the standard economic model to account for psychophysical properties of preference and judgement, which create limits on rational calculation, willpower and greed' (Camerer and Malmendier, 2007, p. 235) and further analysis is presented by Tomer (2007).

A particular theme arising from this approach is the importance of fairness both in economic behaviour in general (see for example Kahneman et al., 1986a and 1986b) and behaviour with respect to tax compliance in particular (for instance Bordignon 1993 and Cowell, 1992).

Such an approach is consistent with the contribution of the classical economists. For example Adam Smith has been described as a behavioural economist and his 'world is not inhabited by dispassionate rational purely self-interested agents, but rather by multidimensional and realistic human beings' (Ashraf et al. p. 142). However, the main thrust of the analysis in mainstream economics and, indeed, parts of some other disciplines such as management, has developed on the basis of that part of Adam Smith's (1776) contribution that economic behaviour was motivated by self-interest. Economics therefore became the mechanics of utility and self-interest and simply a 'calculus of pleasure and pain' (Jevons, 1888). Such an approach has led to many important insights and understanding of economic behaviour but the central assumption that human beings are largely motivated by immediate self-interest and

rationality, narrowly defined, has its limitations. This approach has been vividly described by Veblen as follows:

> The hedonistic conception of man is that of a lightning calculator of pleasures and pains who oscillates like a homogeneous globule of desire of happiness under the impulse of stimuli that shift him about the area, but leave him intact. He has neither antecedent nor consequent. He is an isolated definitive human datum, in stable equilibrium except for the buffets of the impinging forces that displace him in one direction or another. Self-imposed in elemental space, he spins symmetrically about his own spiritual axis until the parallelogram of forces bears down upon him, whereupon he follows the line of the resultant. When the force of the impact is spent, he comes to rest, a self-contained globule of desire as before (Veblen, 1898, pp. 389-90).

However, such an approach does not explain much observed behaviour such as the willingness of citizens to act in the public interest, even when it may not appear to be in their own immediate self-interest. As already mentioned above, this happens when taxpayers meet their liabilities to a large extent without the need for an unduly coercive tax regime. Another example is the well-known tendency of some US taxpayers to make interest-free loans to government by having more income tax than necessary withheld from their salaries followed by a refund after the end of the tax year (Fennell, 2006).

Furthermore it taxpayers may not react well to an onerous regime, however much it may look to be effective. For instance both Schmölders (1970) and Strümpel (1969) reported that the German system was very rigid in its assessment procedures which led to an 'effective' but expensive and confrontational system. A notable outcome 'of the relatively coercive tax-enforcement techniques is the high degree of alienation from the state…[which] negatively influences the willingness to cooperate' (Strümpel, 1969, p. 29).

In contrast to the approach based heavily on self-interest, behavioural economics has involved subjecting the assumptions of mainstream economics to close scrutiny. DellaVigna (2009) summarized deviations from the standard model as non-standard preferences, non-standard beliefs and non-standard decision-making. In recent years considerable analysis and evidence have been presented on the importance of aspects such as fairness in taxation, the endowment effect, framing of decisions, limited attention, loss aversion and mental accounting that may impact on the administration of a tax system. Congdon et al. (2009: 375) stated: the implications of behavioural economics' for public policy, including tax policy, have yet to be systematically explored, and …this oversight leads to both mistaken policy and missed opportunity'.

Behavioural economics has also reached a wider audience. For example, the book Nudge by Thaler and Sunstein (2008) became 'required reading' on a 2008 summer reading list for Conservative MPs in the UK. This was because authors' argue that sometimes voters need a gentle push to do the right thing, a view seemingly consistent with the Conservative Party's tax and welfare policies. From that approach came the Behavioural Insight Team or 'nudge unit' which was set up 2010 in the UK Cabinet

Office. Its role is to develop ways of helping people make better choices rather than trying to force them to do so. One early initiative in taxation improved some taxpayers' responses by changing letters from the tax office to explain that most people in their area had already paid their taxes.

For the present purpose, the behavioural economics approach examines a range of factors which may influence taxpayers' compliance behaviour. Some of the work also draws on other academic disciplines such as sociology in considering variables such as social support, social influence and certain background factors such as age, gender, race and culture. Psychology reinforces this approach and has even created its own branch of 'fiscal psychology' pioneered by Schmölders (1959) and reinforced by others such as Lewis (1982). A specific example of a relevant factor is referred to as 'framing' where it has been observed that the way an issue is framed can be an important influence on individuals' responses (Tversky and Kahneman (1981). This seems to be true in general and with respect to tax compliance in particular (see, for example, Holler, et al., 2008). Other important aspects include fairness in taxation, the endowment effect, limited attention, loss aversion and mental accounting.

There are many detailed contributions to the behavioural approach. Reflecting widely held views, Braithwaite et al. (2003) examined such factors as the perception of justice and Feld and Frey (2007) suggested that taxpayers are prepared to comply with the tax system if they perceive the political process is fair and legitimate. The roles of individuals in society and accepted norms of behaviour have also been shown to have a strong influence (Wenzel 2004 and 2005). This all has links with the rapidly expanding literature on tax morale which might be defined as 'an individual's intrinsic willingness to pay taxes' (Alm and Torgler, 2006, p. 224) and which is examined further in Torgler (2007). Background factors such as cultural influence have been examined by Coleman and Freeman (1997) and Cummings et al. (2004), and so have the implications of different political systems (Pommerehne et al., 1994). More direct contributions to policy in this area have come from a number of authors. For example, one is an appeal to taxpayers' conscience (Hasseldine and Kaplan, 1992) and also to feelings of guilt and shame (Erard and Feinstein, 1994). Others have suggested more positive help for taxpayers (Hite, 1989) and different methods of achieving this - such as the use of television to change taxpayers' attitudes towards fairness and compliance (Roberts, 1994) and information campaigns about the public goods and services paid for by taxation (Leder, et al. 2010).

Experimental work has also generated some potentially useful insights and one of these is the 'echo effect' Kastlunger, et al. (2009). This is the idea that tax audits can reverberate in a taxpayer's mind and increase their compliance with the tax system in the future. Experimental evidence suggests that when taxpayers are audited early in their taxpaying careers this can lead them to overestimate the probability of being audited in the future and thus increase their compliance. However the echo effect may be much less if such a tax audit is only undertaken after an individual has experienced many years without such an audit. There are other ideas coming from experimental evidence, such as the 'bomb crater effect' (Mittone, 2006), which may be less convincing. The term comes from the observation that troops in battle take cover in the craters of recent explosions thinking it unlikely that subsequent shells will fall in

exactly the same place. Similarly it is conjectured that some taxpayers think a tax audit will not soon be followed by another one. However it is not known how significant such an effect might be in practice, particularly as tax authorities are likely to pay additional attention to less compliant taxpayers. Nevertheless all such aspects are worth exploring. In addition, a similar development to behavioural economics has taken the form of 'responsive regulation' and to this we now turn.

4. RESPONSIVE REGULATION IN TAXATION

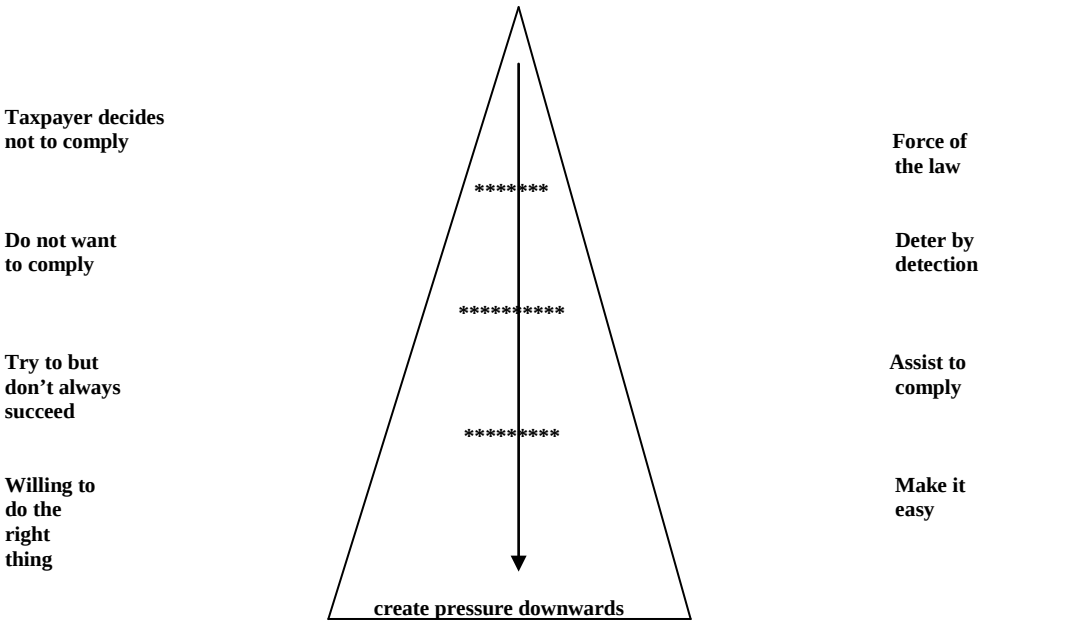
Like the behavioural approach, the development of 'responsive regulation' has made an additional contribution to regulation including its application to taxation. There have been some valuable contributions such as those by Braithwaite (2007), Kirchler et al., Leviner (2008) and Ventry (2008). Responsive regulation fits well with behavioural economics as Valerie Braithwaite's (2007: 5) comment illustrates:

> Responsive regulation is a complex business. It welcomes the voice of dissidents, it deliberates on shared community goals and understandings, it enforces agreed upon standards, preferably through teaching, persuading and encouraging those who fall short…It seeks to dismantle any formula that presumes that individuals or groups are uniformly programmed in the way that they will respond to regulatory demands.

Since responsive regulation is also based on taxpayer motivation, further developments may benefit considerably from insights generated by behavioural economics. Essentially, the idea is that the response to non-compliance should be related to the reasons for non-compliance. Official activity with respect to taxpayers may therefore vary from the case of individuals or firms who are deliberately non-compliant to people who are trying to comply and simply need help to do so. In terms of taxation, there have been considerable developments, not least in Australia and New Zealand and the approach is illustrated in Figure 2 where the action taken by the tax authorities is responsive to taxpayers' willingness to comply.

Responsive regulation involves taking account of a range of factors which may affect the response of taxpayers to changes in legislation, supporting taxpayers in meeting their obligations to comply and recognising that different taxpayers may respond in different ways. Baldwin and Black (2008: 59) go on to suggest that 'really responsive regulation' with respect to firms 'seeks to add to current theories of enforcement by stressing the case for regulators to be responsive not only to the attitude of the regulated firm but also to the operating and cognitive frameworks of firms; the institutional environment and performance of the regulatory regime'. The next task is to consider these ideas with respect to tax authorities themselves.

Figure 2
Compliance Model Developed in Australia and New Zealand



Source: James (2006)

5. RISK MANAGEMENT AND THE TAX AUTHORITIES

The approach of behavioural economics may also contribute to avoiding the risks of poor performance of the part of tax authorities themselves since, of course, tax officials are also human! In a study of Australian taxpayers and tax officials, Kirchler et al. (2006, p. 515) concluded that treating taxpayers reasonably and fairly, explaining rules and decisions and providing reliable information will improve the reputation of tax officers which may lead to an increasing willingness to comply with the spirit of the law. Unfortunately, a poor level of service may lead to the opposite outcome and sometimes tax administrations can face difficulties even - paradoxically – when spending considerable effort on changing their management systems.

Also unfortunately, tax administration in the UK provides an illustration of such difficulties, with a major merger, a substantial cut in resources and a radical change in management culture involving private sector techniques based on 'rational' rather than 'behavioural' principles. Indications of problems had been emerging for some time with taxpayer complaints about the failure of HM Revenue and Customs (HMRC) to respond to telephone calls and letters. In addition there were several serious errors which affected millions of taxpayers and the difficulties increasingly attracted official attention. The Treasury Select Committee (2011, 'Conclusions and Recommendations', para. 46) report on HMRC concluded:

> The evidence we have received in this inquiry has been disturbing. HMRC's delivery of services to the general public has fallen to unacceptable levels in several areas. Many factors have contributed to this process: overly ambitious expectations for IT projects, sustained cuts to resources, a management culture of 'command and control', increasingly complex tax legislation and the legacy of the merger.

The Treasury Select Committee (2011) also looked specifically at management issues. It reported that the Cabinet Office's people survey of Autumn 2010 ranked HMRC bottom of the entire civil service – indeed the HMRC score was even lower than in the previous year. The Committee stated in its conclusions and recommendations (para. 4) that:

> The evidence we have received about the management culture within HMRC, supported by the staff survey results, is very disturbing. There is a perception that the Department is run on the principles of close control and management scrutiny, with little opportunity for individuals to develop autonomy and exercise their skills. Whilst there is a need for consistency in dealing with people's tax affairs and appropriate performance management, a culture such as the one described to us is likely to harm staff morale and lead to disengagement and poor performance.

The first of the factors mentioned above – the merger between the Inland Revenue and Customs and Excise to form HM Revenue and Customs - took place in 2005. Both departments had very long and well-established but different cultures and organisation. The Financial Times (9 July 2004), described the merger as the mating of the Inland Revenue retriever with the Customs and Excise terrier. The Inland Revenue was primarily responsible for direct taxation and its origins can be traced back to the Board of Taxes established in 1665. A separate Board of Stamps was set up in 1694. Customs and Excise was responsible for collecting customs duties, excise duties and value added tax and also had certain agency functions. The role of customs officers can be traced back to the thirteenth century and a Board of Customs to the seventeenth century. After the merger of the two departments HM Inspectors of Taxes and other tax officials were all designated Officers of Revenue and Customs, which may not have helped morale either.

In addition to the merger, the resources available to HMRC are being reduced – it is required to reduce its running costs in real terms by 25 per cent by the end of 2014-15 (National Audit Office, 2011, para. 3). Both the merger and the cut in resources were likely to lead to difficulties but the focus here is on managerial change where a behavioural approach may have most to offer.

The management changes at HMRC can be seen as a feature of the 'New Public Management' (NPM) in many countries as described, for example, by Pollitt and Bouchaert (2011). NPM takes a 'business-like' approach to public sector management and places a greater emphasis on 'performance' particularly through the measurements of 'outputs', market-type mechanisms and treating 'service-users' as 'customers'. As Pollitt and Bouchaert, (ibid. p. 10) point out, a number of commentators have

observed tensions between the 'economistic' low trust way of thinking involving rational systems of rewards and punishments and a more behavioural way of thinking with a greater trust in the inherent creativity of staff provided they are properly led and motivated.

The implicit 'economistic' assumption of some fashionable management theories may account partly for their initial appeal. Managing people within a formal and rational structure with incentives, targets and so on seems consistent with a basically logical process and to promise improvements in efficiency. Indeed, there has been comment about such theories being advanced in this way by vested interests. For example, Newall et al. (2001, p. 8) describe active management fashion setters (consultants, gurus, IT suppliers, professional groups and so on) developing 'rhetorics about best practice...by echoing felt gaps in efficiency and performance'. It was put even more clearly by Baskerville and Myers (2009, p. 647) who defined a management fashion as 'a relatively transitory belief that a certain management technique leads to rational management progress'.

With respect to the UK and the HMRC, concerns have been examined in the academic literature (for example by, Carter, et al. 2011a and 2011b). One issue of concern has been the use of 'lean techniques' at HMRC. Such techniques were developed in the business sector, primarily in the motor industry, and the central idea is that removing wasteful processes from production will lead to improvements in efficiency and quality (see for example, Womack et al. 1990 and Holweg, 2007). It was an indication of how things were to be changed that Sir David Varney from the private sector joined HMRC in 2004 and was appointed as the first Chief Executive of the newly merged HMRC 2005. Also in 2005 it was decided to introduce lean management techniques across HMRC and lean management formed a major part of the PaceSetter Programme which had the aim of improving business performance and staff engagement (National Audit Office, 2011, para. 5). In a review for HMRC, Radnor and Bucci (2007, p. 20) found that the principles of lean management were absorbed by HMRC staff and there was a 'very good understanding of the background to Lean and its principles' across all the sites they visited and across all grades of staff. They also found that the most commonly cited principles of Lean were customer focus, developing and improving standard processes, increasing efficiency, removing waste and increasing productivity and quality. In a later paper, Radnor and Bucci (2008 as quoted by Carter et al. 2011a) stated that HMRC 'are the closest of any public service to date in implementing the Lean philosophy'.

Furthermore it was anticipated that the changes would address the requirement to save resources. For instance the Varney Review (2006, p. 5) by Sir David Varney required an improvement in 'public sector contact centre performance by establishing performance targets and best practice benchmarks… [so]…reducing operating costs by 25 per cent'.

No doubt changes in tax administration are necessary as the tax environment and technology change but possibly there was insufficient appreciation of advantages of the methods of tax administration that had developed over long periods. There were also concerns whether such management techniques were entirely appropriate in such a public sector context. Indeed there has been a growing body of evidence that this approach is associated with some undesirable outcomes.

A study by Carter et al. (2011a and 2011b) of HMRC staff in 2008/09 involving an initial interview analysis followed by a questionnaire survey produced results that were some way removed from the advantages claimed for such management approaches. They found that the fragmentation of processes and the imposition of hourly targets had adversely affected quality and productivity, there had been a negative impact on non-targeted work, a loss of control and discretion leading to deskilling and difficulties for managers and supervisors in managing effectively as their attention was focused on statistical information. A conclusion of particular concern was that while 'statistics may reveal productivity and performance improvements, further investigation reveals that they are constructed accordingly and collusion in this process occurs on many different levels' (Carter et al. 2011a, p.120). In a further paper on the subject, Carter et al. (2011b, p. 94) concluded that the enforcement of the 'appositely named lean "PaceSetter" system generated a series of damaging outcomes for a hitherto skilled and loyal public servant workforce', with much previously skilled service reduced to 'little more than semi-skilled assembly line work' (p.95).

A behavioural perspective of such issues has considerable advantages over such an approach. Echoing Veblen's comment above, in a management context, Kaufman (1999, p. 387) suggests that the closest real world approximation of economic man and the model of self-interested rational choice is a child under eight years old where behaviour can be predicted on the basis of 'getting what you want makes you happy'. Kaufman concludes that, although the rational choice model is a powerful device, it cannot adequately explain employee behaviour in many cases. In contrast, behavioural economics has indicated directly some of the advantages of management based on 'employee involvement, commitment and empowerment…[but not]…employee control' (Tomer, 2001, p. 64). Indeed there is substantial evidence that using workers' contributions in this way produces better results in complex situations than have more mechanistic approaches to management.

5.1 Fairness

A further general concern in the UK in the recent past has been the fairness of tax administration. As pointed out above, behavioural economics recognises the importance individuals place on fairness in a way that the rational approach does not. In taxation this can mean the difference between a successful tax and a failed one – such as the UK's community charge (James, 2012). HMRC has been the subject of considerable press coverage about the allegedly favourable terms granted to certain very large organisations but not to the great majority of taxpayers. One of the conclusions of the Public Accounts Committee (2011) was:

> The Department is not being even handed in its treatment of taxpayers. It is unfair that large companies can settle their tax disputes...at less than the full amount due and that they have been allowed up to 10 years to pay their tax liabilities, while small businesses and individuals on tax credits are not allowed similar leeway.

While the approach of 'doing deals' with large taxpayers might be consistent with a business-like approach described above, it can undermine the public sector ethos of tax administration and therefore the tax morale of the vast majority of individuals.

6. CONCLUSION

Mainstream economic analysis, based on the self-interested rational choice model, has proved to be a powerful means of understanding taxation. However this approach has its limitations and a more comprehensive approach can be developed by drawing on behavioural economics. Tax authorities have managed risk throughout the history of taxation but in recent years there have been considerable developments in applying risk management to tax administration by the European Commission, the OECD and others. There have also been considerable developments in behavioural economics. These offer valuable insights regarding taxpayer behaviour and many further applications are likely to prove worthwhile. Responsive regulation has also contributed to a more sensitive approach to managing taxpayer risk and is based on taxpayer motivation. Responsive regulation may also benefit from applications of behavioural economics.

Taxpayers are also affected by the operation of tax agencies. Individuals who are treated reasonably and assisted effectively where appropriate are more likely to comply with the spirit of the law than individuals who are poorly treated. Insights from behavioural economics may not only be helpful in improving taxpayer compliance but also the performance of tax officials. A particular aspect has been the development of management methods used within tax authorities themselves. Unfortunately management techniques, often transplanted from the private sector and based on the self-interested rational choice model, have not always delivered the promised benefits. Some of the difficulties arise because tax authorities are not market based profit maximizing organizations. However, difficulties may also arise because tax officials have to deal with important and complex issues in a public sector context. The performance of tax officials may be enhanced if they are able to develop a professional approach to their duties rather than be subject to more mechanistic methods of management.

In conclusion, there is evidence to suggest that many taxpayers do not act in their own immediate self-interest by pursuing every possible opportunity to avoid or evade taxation and so do not have to be tightly regulated. Rather, there may be significant advantages in shifting the emphasis of tax compliance policy towards treating the majority of them as responsible citizens and using the insights of behavioural economics to do this in the most effective ways. Similarly using a more behavioural approach might avoid the disadvantages of some managerial systems being employed in tax agencies with outcomes such as those noted above. Developing a professional approach among tax officials would also encourage responsible citizens to fulfil their tax obligations.

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