Accountability for Public Sector IT Projects and the Senior Responsible Owner: A Theoretical Background and Research Agenda

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## A theoretical background and research agenda

### ABSTRACT

The history of information technology (IT) capital projects in the public sector is littered with high-profile examples of mismanagement and failure. Part of the blame for this legacy has been placed on the lack of clear accountability for the outcomes of projects, with accountability being diffused among committees and multiple individuals. To address this issue the role of Senior Responsible Owner (SRO) was introduced by the government in 2000, and named SROs now carry the full weight of accountability for major projects. Recent reports of continuing problems with government IT projects suggest that the delegation to an individual of predefined measures of accountability may be problematic, and that a greater understanding of the meaning of individual SRO accountability is needed.

The purpose of this paper is to examine how this research agenda might fruitfully be addressed, and to develop guiding theoretical propositions. We examine the evolving changes in the doctrine of ministerial accountability that have led to the increasing use of objectively defined accountability criteria and their embodiment in the SRO role. We argue that an individual SRO's understanding of accountability can be regarded as a subjective phenomenon, and that research is needed that will increase our knowledge of the different ways in which accountability is conceived, and how different conceptions might lead to more or less satisfactory project outcomes. We examine five theoretical ways in which such an agenda might be addressed, and conclude that an experientialist epistemology offers an appropriate basis for an empirical study. To conclude we outline a research agenda covering the areas of accountability and IT projects based around the cognitive and subjective limitations we have outlined.

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INTRODUCTION

The history of public sector IT capital projects is littered with examples of projects that have been delivered late, or have exceeded their budgets, or have proved unsuitable for their intended use. Such projects include the computerised passport processing system, the National Insurance Recording System and the Libra project (Comptroller and Auditor General, 1999, 2001, 2003). Other projects such as the Benefits Card Payment project (Comptroller and Auditor General, 2000) have been cancelled prior to completion after the expenditure of significant sums of public money, having made little progress over an extended period of time. These project failures and their consequent negative impacts on the delivery of public services have been widely reported in an almost continuous stream of newspaper headlines. This succession of revelations about the problems of public sector IT capital projects has been accompanied by high levels of political and public concerns that the benefits of the projects are lost and that large sums of public money are being wasted.

The House of Commons Public Accounts Committee in its review of public sector IT capital projects recommended that senior managers be held accountable for the ‘specific anticipated benefits from IT projects’ (Committee of Public Accounts, 1999: xiv). A wide ranging review of public sector IT capital projects (Cabinet Office, 2000) reported serious management weaknesses, with lines of accountability unclear and diffused across committees or multiple individuals. The traditional practice of collective accountability was perceived to be a major contributor to the poor levels of project performance. The review found ‘many examples where ‘multiple’ or ‘committee’ ownership of a project has diluted accountability, diffused authority and led to slower, less responsive decision making’ (Cabinet Office, 2000: 16-17).

In response to these criticisms the British government introduced the role of the Senior Responsible Owner (SRO) (Cabinet Office, 2000). The aims in creating this role were threefold: first, to improve the speed of decision making; second, to improve the clarity of the public client’s voice across the project (Office of Public Services Reform, 2003), and third, to improve the performance of public sector IT projects. The designated SRO is now solely accountable for a project’s outcome (Office of Government Commerce, 2002, 2003) and ‘has overall responsibility for delivering the business objectives and benefits of any programme or project’ (Cabinet Office, 2000: 14). SRO accountability is outlined in official literature only in the loosest terms: ‘The Senior Responsible Owner ‘has overall accountability for the programme’, and is ‘ultimately accountable for the success of the programme’ (Office of Government Commerce, 2003: 19). Specific accountabilities are deemed to be peculiar to a project and are defined by the sponsoring group, of which the Senior Responsible Owner is a peer member (Office of Government Commerce, 2003). The SRO’s accountability is defined within the context of a specific project as being for a set of objective outcomes. The SRO is accountable to the defined set of peers that form the project or programme sponsoring group for meeting these objectives.
The SRO role is a high-profile one, with SROs reporting both to the project’s sponsoring group and to other senior management teams within the SRO’s department. Individual ministers often request briefings from SROs on what they consider to be the key projects for their department. SROs also appear before Select Committees of the House of Commons to account for their projects. They also play a key role in Gateway reviews (Office of Government Commerce, 2004), a review process that is used to evaluate projects and programmes at key stages during their lifecycle. Further, SROs also assist the National Audit Office with their work of auditing the efficiency, effectiveness and economy of projects and programmes. The outcome of these reviews and that of the project or programme itself can have a significant effect on an SRO’s performance-related bonus and career progression.

Despite the introduction of the SRO role and its high-profile nature, problems with public sector IT capital projects continue to be reported (The Economist, 2002a, 2002b, 2004; Comptroller and Auditor General, 2005). These call into question the fundamental assumptions that making the SRO individually accountable will improve project performance and that accountability can be predefined by others and delegated, with telling effect, to an SRO. The combination of novelty and importance that characterises the SRO issue suggests the need for many different strands of further research. Of particular concern in this paper is the clear need to improve our understanding of whether and how fundamentally different meanings or conceptions of accountability are held by different SROs, and how such differences might relate to variations in performance outcome. Our aim in this paper is to establish a theoretically cohesive research approach that will enable the production of useful knowledge about the nature and range of different SROs’ understandings of their accountability and to outline possible directions for future research.

In the first part of the paper we argue that there has been a historical focus on institutional accountability at the expense of research into individual accountability. We explore how and why the traditional doctrine of civil servant accountability has declined, with a resultant increased emphasis on both the accountability of civil servants and on managerial performance. We examine the effects of managerialism on the changing subject of civil servant accountability and on the emergence of the SRO role. We formalize our arguments by developing two propositions that illustrate the basic flaws in the SRO concept that arise from subjective and cognitive aspects of understanding.

In the second part of the paper we explore the potential and limitations of five different approaches to the study of SRO accountability that might take into account its cognitive and subjective components. We conclude that one of the five - experientialism, or phenomenography - offers to overcome the limitations of the others. We present three further theoretical propositions using phenomenographic principles to illustrate the argument for the existence of a range of understandings of SRO accountability. We conclude that the subjective and cognitive limitations outlined open the way for further research into the field of accountability and the management of IT projects across the public sector.
THE CHANGING DOCTRINE OF CIVIL SERVANT ACCOUNTABILITY

The Institutional Emphasis

Accountability has a history ‘as old as civilization itself’ (Gray, & Jenkins, 1993). At its core it is a ‘relationship between two (or more) parties in which the one recognises an obligation to give an account of its actions to the other(s)’ (Pollitt, 1999: 2). The relationship is one characterized by stewardship, with the party holding to account (a principal) giving stewardship to the party being held to account (a steward): ‘stewardship is thus established when a steward accepts resources and responsibilities entrusted by a principal’ (Gray & Jenkins, 1993: 55). Scott (2000) defined the third key part of an accountability relationship with the question “for what?”, as an accountability relationship is always created in relation to a particular subject. It is then easy to understand that accountability is ‘central to the concept of responsible government’ (Woodhouse, 1994: 3) and is often regarded as ‘a basic benchmark against which systems of government can be judged’ (Pyper, 1996: 1). Governments that are perceived to be unaccountable however, ‘are likely to provide fertile ground for the cultivation of authoritarianism, totalitarianism and every type of abuse of power’ (Pyper, 1996: 1).

Accountability is then an important subject, and one that has been studied from different perspectives. Some scholars have examined the changing accountability relationships between bodies such as Parliament, the Government, the Cabinet, regulatory bodies, government agencies, public non-departmental bodies and the Courts (Day & Klein, 1987; Drewry & Giddings, 1995; Stone, 1995; Barberis, 1998; Scott, 2000). Others have focused on the accountability of government ministers within the Westminster model of government and the particular forms accountability can take (Woodhouse, 1994; Pyper, 1995a,1996). Another class of studies has explored different mechanisms of accountability such as bureaucratic, professional, political or parliamentary mechanisms (Romzek, & Dubnick, 1987; Lawton & Rose, 1991; Oliver, 1991; Stone, 1995; Oliver, 1991; Pyper, 1996; Flinders, 2001).

The dominant feature of all these studies is their institutional perspective on accountability. This emphasis on the institutional perspective is not surprising, since accountability is fundamental to the system of checks and balances that hold governments to account and as such is reliant on institutions such as the House of Commons, the House of Lords and the Courts. However, a less well researched level of analysis - the individual - has recently taken on a new significance as individuals within institutions are increasingly given delegated accountability for particular activities.

The Accountability of Civil Servants in the UK Central Public Sector

Civil servants in the United Kingdom have traditionally been solely accountable to their departmental superiors within the Civil Service, and ultimately to ministers. This convention is the counterpart to the long-standing doctrine of ministerial accountability, and both are reflected in today’s principal documents that govern the relationships between ministers, civil servants and the House of Commons. The Code of Conduct for Ministers states that ministers are accountable ‘for the policies, decisions and actions of
their departments and ‘Next Steps’ agencies” (Cabinet Office, 2001: 1). The Civil Service Management Code, which sets out the rules that govern the appointment and management of civil servants, states that civil servants are accountable to the minister of their particular department (Civil Service Commissioners, 1995). Civil servants are also accountable to their departmental superiors ‘for the efficient, effective and economical discharge of their responsibilities to their civil service line managers’ (Pyper, 1995b: 117), and through this line to the Permanent Secretary of the department, and finally to the minister. Successive versions of the Armstrong Memorandum state that civil servants are responsible for their actions to their ministers, whilst ministers are accountable to Parliament (House of Commons, 1985; House of Commons, 1987). When civil servants appear before Parliamentary Select Committees, they do so on behalf of ministers and are accountable to ministers for the evidence they give, whilst ministers are accountable through the Committee to the House of Commons (House of Commons, 2003). The sole exception is the Accounting Officer, who is personally and directly accountable to Parliament through the Public Accounts Committee for the expenditure of their respective department or agency (Pyper, 1995b).

This formal doctrine of accountability follows the broad lines laid down by A. V. Dicey (1959). Developed during the mid 19th century, the doctrine holds that ministers are solely accountable to Parliament for every action, fault or error made by their departments (Finer, 1950; Woodhouse, 1994), as it is through the minister in Parliament that the executive is held to account. The implication of this doctrine is that a minister cannot blame civil servants, otherwise civil servants would require the power to blame the minister (Jennings, 1961).

The doctrine is consistent with the ‘progressive’ style of public administration of the era in which it was conceived (Hood, 1995), whereby politicians were assumed to be inherently prone to corruption, waste and favouritism. In order to prevent these problems, the doctrine maintained buffers against political and managerial discretion through the use of elaborate procedural rules and the diffusion of power (Hood, 1995). The accountability of individual civil servants was constrained by the restricted nature of individual power and the complex rules governing activity. As the outcomes of policy implementation were the product of actions taken by a myriad number of individual civil servants and the scope of individual activity was restricted by complex rules, the subject of civil servant accountability was limited to probity, equity and due process (Parker, & Gould, 1999).

Given the doctrine, the concept that civil servants could be held to account by sources external to the Civil Service is ‘extremely problematic’ (Pyper, 1995b: 119), as the civil servant would in effect become a politician, undermining Parliament, as it is only though the minister in Parliament that the executive is held to account. Therefore ‘ancillary to ministerial accountability is non-accountability of civil servants’ (Turpin, 1994: 120). So under the doctrine political officials such as ministers were ‘held to be comprehensively accountable whilst their agents – the permanent officials - retreated steadily into the mists of non-accountability’ (Johnson, 1974: 6).
The doctrine is simple, but the ‘reality of accountability has come to depart from the formal doctrine’ (Barberis, 1998: 453) in two distinct ways. First, civil servants are increasingly held accountable for the outcome of their actions. Lord Scott (1996) in his report into the sale of defence and dual-use equipment to Iraq legitimized ‘the splitting of the constitutional seam between ministers and officials’ (Barberis, 1998 : 452) when he observed that if ministers were to avoid blame on the grounds of a lack of knowledge, they ought to assist with the provision of information. Otherwise ‘Parliament (and the public) will not be in a position to judge on whom responsibility for what has occurred should be placed’ (Scott, 1996 : Vol.4, K8.16) or in other words, who other than the minister should be held to account. More recently, the appearance of Dr David Kelly before the Select Committee for Foreign Affairs and the subsequent inquiry by Lord Hutton (Hutton, 2004) demonstrated the extent to which civil servants can be held to account for the outcomes of their actions. This increase in the accountability of civil servants is not a new phenomenon, but rather a progressive development. Woodhouse observes that ‘one of the most significant developments during the 1980’s and 1990s in relation to accountability has been the trend away from the anonymity of officials towards civil service accountability’ (Woodhouse, 1994: 288-289).

The second way in which the doctrine has departed from its original form is the changing nature of the subject of civil servant accountability. There has been ‘a shift from accountability encompassing probity, stewardship and the concept of ultra vires to accountability focusing on positive action – managerial performance, the effective use of resources and professional and personal integrity’ (Hinton & Wilson, 1993: 123). Civil servants are increasingly held accountable for the outcomes and outputs of their work.

The factors that lie behind these changes do not form a mutually exclusive set. They consist of three overlapping and sometimes complimentary changes, including the expansion of the role of the State in economic life since the inception of the doctrine, the introduction of the departmental select committee system to Parliament in 1979, and the introduction of the Next Steps agencies.

**The Expansion of the State**

The size and scope of the work carried out by the Civil Service has expanded massively since the doctrine came into existence in the mid-19th century. Before the first world war there was a ‘mutation of the regulatory to the social service state’ (Hennessy, 2001: 57), and after the second world war the arrival of the Welfare State, the NHS and nationalised industries. These brought for the Civil Service a whole new range of responsibilities and a more substantial role in the economic life of the country (Ling, 1998). The growth in civil service activity produced problems for the doctrine: ‘It is clear that much of the difficulty in respect of definition and enforceability [of accountability] can be attributed to the scale and character of the public activities and services for which we wish to establish accountability, and to complexity and novelty of the executive structure which have been devised to undertake these tasks’ (Johnson, 1974: 3). As a result the meaning of ministerial accountability has become much more complex (Woodhouse, 1994). Ministers can no longer directly control the detailed
activities of their departments because of the sheer complexity and scale of those activities. Instead ministers carry out a supervisory function with the power to intervene or direct activity if they so desire. Ministerial accountability has at least become relative to the degree of control or supervision exercised by the minister rather than being absolute (Flinders, 2001). This being the case, ‘it no longer appears that traditional ministerial responsibility for the acts of civil servants provides a sufficient measure of accountability to Parliament’ (Turpin, 1994: 123).

**Parliamentary Select Committees**

The introduction of the departmental system of Select Committees has also contributed to the trend towards the accountability of civil servants. Civil servants regularly appear before Select Committees to be questioned in person about their activities, even if they appear, at least officially, within the boundaries set by the Osmotherly Rules and the Armstrong Memorandum. However, the cumulative result of the introduction of ‘the post-1979 regime of select committees was a challenge to the de jure non-accountability of officials to Parliament, to the point where a developing de facto accountability could be discerned’ (Pyper, 1995b: 125). Whilst there have been some doubts over the effectiveness of Select Committees on the grounds that the Osmotherly Memorandum in effect gave the civil servant the opportunity to refer the Committee back to the minister, few civil servants have done so (Pyper, 1995b). Therefore ‘the experience of scrutiny by the select committee has produced a quantitative and qualitative enhancement of civil service accountability’ (Pyper, 1995b: 126).

**The Next Steps Agencies**

The Next Steps agencies carry out the service delivery and implementation work that now forms 95% of the work of the Civil Service (Drewry & Giddings, 1995; Pyper, 1995b), with only a small parent department concentrating on policy formation. The agencies were meant to remove the burden of operational activity from ministers, with accountability for operational activity being carried by the Chief Executives of the Next Steps agencies rather than ministers (Hazell, 1993). Yet no changes in ministerial accountability arrangements as a result of the introduction of the Next Steps agencies were envisaged (Pyper, 1995a).

This split of operational activity from policy formation has had two distinct impacts on the traditional doctrine of accountability. First, whilst there was meant to be no change in the arrangements for ministerial accountability, the split between operational and policy matters has caused confusion. In appearances before various Parliamentary Committees the Chief Executives of Next Steps agencies are regularly asked questions about policy matters that are the remit of parent departments, and Permanent Secretaries of parent departments are asked questions about operational matters that are the preserve of agencies (Massey, 1995). The end result is that agency Chief Executives have some form of accountability beyond that owed to ministers and superiors.
Second, the nature of the accountability relationship has changed. What had been a purely internal civil service matter has become an external issue between the minister and the Chief Executive of the Agency. As Jordan observes, ‘in reality it is now accountability to the minister by the Chief Executive rather than accountability of the minister to the House of Commons that is on offer: these are different’ (Jordan, 1992: 13). The sackings of the Chief Executives of the Prison Service and the Child Support Agency (Barberis, 1998; Harlow, 1999) and the resignation of the Chief Executive of the Scottish Qualifications Agency (Clarence, 2002) lend weight to this proposition.

To summarise, civil servants have become accountable outside the doctrinal line to ministers and superiors as a result of the expansion of the work of the Civil Service that has in effect overloaded the current doctrine. Coupled with structural changes in the Civil Service and Parliament, civil servant accountability is now a reality.

The Changing Subject of Civil Servant Accountability

Civil servants have traditionally been accountable for due process, probity, equity and transparency in the execution of their work (Parker & Gould, 1999). This has changed as a result of a phenomenon known as New Public Management (NPM). NPM places a strong emphasis on the use of what are perceived by the public sector to be the methods of business (Hood, 1991; Rhodes, 1994; Rhodes, 1997). In particular NPM stresses ‘hands on management, explicit standards and measures of performance, managing by results, value for money and more recently, closeness to the customer’ (Rhodes, 1997: 48). The public sector has in effect engaged in both mimetic and coercive isomorphism (DiMaggio, & Powell, 1983) and adopted the language and behaviours of the private sector, despite the significant differences between the two sectors. The distinctiveness of the public sector lies in its emphasis on social justice and equity in the provision of goods and services that meet collectively agreed community needs, whereas the private sector is focussed on the provision of goods and services defined by the discipline of the marketplace that meet the needs of paying customers (Parker & Gould, 1999). So NPM, with its emphasis on efficiency and effectiveness in place of probity and equity, has had an impact on the subject of a civil servants accountability.

NPM has restricted civil servant accountability to a limited range of performance measures rather than for a wider set of public interests (Rhodes, 1994). There has been a shift from financial stewardship, where accountability has traditionally been for probity and due financial process, to financial performance, where accountability is for the performance in relation to outputs (Parker & Gould, 1999). The increasing development and use of explicit performance measures with the intention of creating a greater degree of accountability, particularly in relation to outputs (Glynn, & Perkins, 1997) is a key part of NPM. The subject of an accountability relationship has become increasingly objectified (Stone, 1993), with organizations such as The World Bank defining accountability ‘as holding individuals and organizations responsible for performance as objectively as possible’ (Paul, 1991: 2). As a result, accountability has also become focussed ‘on what is measurable and quantifiable in the easiest and most commonly
understood ways – namely financial statement representations’ (Parker & Gould, 1999: 124-125). In terms of Day and Klein’s (1987) description of managerial accountability a much greater emphasis has been placed on programme accountability whereas traditional public administration was more concerned with fiscal and process accountabilities. Indeed accountability within the government is now framed in terms of agreed objective outcomes peculiar to a specific relationship (Public Services Productivity Panel, 2002). So it is clear that the subject of accountability has changed from due process to objectified results (Hood, 1991).

THE ASSUMPTIONS AND LIMITATIONS OF INDIVIDUAL ACCOUNTABILITY
Underlying the introduction of the role of the SRO and the use of objectively defined accountability subject criteria is an assumption that together these will lead to improved project performance. The Public Services Productivity Panel report on accountability is quite explicit about this: ‘clarifying and sharpening accountability will significantly improve performance and delivery’ (Public Services Productivity Panel, 2002: 4). The Panel appears to be following the case for a single point of accountability set out by J. S. Mill: ‘As a general rule, every executive function, whether superior or inferior, should be the appointed duty of some given individual. It is apparent to the world who did everything and through whose default anything was left undone. Responsibility is null and void when nobody knows who is responsible. Nor, even when real, can it be divided without being weakened. To maintain it at its highest there must be one person who receives the whole praise of what is done well, the whole blame of what is ill’ (Mill, 1861: 332). The SRO then must bear the full weight of what goes well or badly in the course of a project.

However, the move to individual accountability and the use of objectively defined accountability subject criteria on the grounds that these will improve the performance of public sector IT capital projects is open to question on two grounds. First, despite the use of agreed, specific, predefined, objective accountability subject criteria, an individual SRO may not understand these accountabilities. There is the risk of misunderstanding, for ‘it is at once evident that such agreement can only be partial and incomplete, no matter who is involved’ (Friedrich, 1940: 3-4). This is a limitation of the internal accountability code (Gray & Jenkins, 1993) adopted, which uses an explicit accountability subject in the context of a specific relationship. In this case, the explicit accountability subject criteria adopted may not fully reflect the totality of the desired outcomes, as individuals tacitly know more than they are able to give voice to (Giddens, 1984). Further, the SRO may not fully comprehend the performance criteria for which they will be held to account, thus potentially leading them to pursue the objectives they understand rather than what was intended.

Second, an individual SRO may have a wider or narrower understanding of their accountabilities in terms of to whom an account must be given. Civil servants now have an increased number of ‘multiple stakeholders, which is inconsistent with the hierarchical relationships expected from the Westminster system’ (Parker & Gould,
1999: 119) and the accountability doctrine that went with it. The individual civil servant no longer sits within a Weberian bureaucratic hierarchy, but in a ‘differentiated polity’ (Rhodes, 1997: 4), at the hub of an extensive network of private sector suppliers, public and private agencies, regulators, policy interest groups, customers, citizens, taxpayers and politicians who must be dealt with. An individual civil servant’s understanding of their accountabilities in this context may be more akin to Spiro’s (1969) “multicentric accountability” in that they are accountable not only to the sponsoring group, but to others ‘to different degrees, in different ways’ (Spiro, 1969: 98). Accountability in the ‘differentiated polity’ (Rhodes, 1997: 4) is therefore more likely to be subjectively, rather than objectively, defined. It is likely to consist of more than giving an account to a second party after the event. The SRO might put into effect a much broader understanding of accountability, by taking into account the views of others beyond the sponsoring group (Donahue, 1989). So the restriction of accountability to the sponsoring group carries with it the risk of unfulfilled accountability relationships and thus potentially a perception of a less than satisfactory outcome. Taking these limitations together, we suggest that:

**Proposition 1:** Individual SROs may have understandings of what they are accountable for that are different from those objectively defined for the particular project.

**Proposition 2:** Individual SROs may have understandings of to whom they are accountable that are different from those defined for the particular project.

When considered together, these propositions reveal the limitations of objectively defined accountability and suggest that the desired improvements in the performance of public sector IT capital projects may not be realised as planned, since individual SROs will have different understandings of their accountabilities and will then pursue the outcomes they believe will satisfy a wider range of parties to whom they understand they are accountable. A key question is then, ‘what are individual SRO’s subjective understandings of their accountabilities?’ This is a question of epistemology, ‘in which attention is directed towards determining not only the nature and sources of knowledge, but also the strengths and weaknesses of particular ways of knowing’ (Watkins, 2000: 93).

**WAYS OF LEARNING ABOUT MEANINGS OF ACCOUNTABILITY**

Watkins (2000) describes five theoretical positions that would allow the exploration of individual understandings of any social phenomenon. The five are behaviourism, cognitivism, individual constructivism, social constructivism and experientialism. Each of these positions adopt its own distinctive orientation to the self and to learning, and each offers advantages and disadvantages for the study of any given aspect of social reality. Over the next few paragraphs we summarise the central tenet of each position, and consider its weaknesses in relation to the study of accountability. We conclude that one of the five epistemological orientations - experientialism, or phenomenography - is more suited than the others to the study of SRO accountability.
**Behaviourism**

Behaviourism rests on the assumption that individuals gain knowledge through sensory experience of an external event. The repeated association of the stimulus with the behavioural response results in the stimulus taking on meaning for the individual (Marton & Booth, 1997). Variations in meaning can be attributed to variations in reinforcement events, including changes in the efficacy of a particular response. Changes in meaning are the result of modified behavioural response in the face of environmental changes.

The primary weakness of behaviourism is that it denies the ability of individuals to learn through conscious thought. Individuals are regarded as uncritical respondents to external stimuli, and are in all other ways passive. The approach suggests that changes in meaning can only occur slowly and then only in response to changing external stimuli (Watkins, 2000). Individuals would find it difficult to respond to new situations as no response reinforcement had taken place.

Therefore in the case of an SRO’s accountability, an individual SRO would need to be held to account for a number of projects before accountability for a project took on any meaning. When, for example, an individual SRO was later made accountable for a programme rather than a project, behaviourism suggests that they would find it difficult to respond, as there was no history of response reinforcement.

**Cognitivism**

Cognitivism assumes that knowledge is gained from within the mind, rather than from external stimuli. Cognitivism therefore takes a diametrically opposite position to behaviourism in its claims regarding the acquisition of knowledge. Phenomena are regarded as unstructured until an individual uses prior knowledge to make sense of them. The acts of an individual are ‘explained in terms of an internal representation of an external reality’ (Marton & Booth, 1997: 9). Whilst knowledge is conceptualized in different ways (for example, rules or personality dispositions), ‘the contents of these mental representations are claimed to provide the basis for determining the meaning of a phenomenon’ (Watkins, 2000: 96). Differences in meaning are attributed to differences in the complexity or richness of the particular mental representations. The acquisition by an individual of a more widely accepted mental representation results in a change in meaning for that individual (Watkins, 2000).

Cognitivism’s main weakness lies in the source of the initial representations used to confer meaning to a phenomenon. How can human beings develop mental representations to understand a phenomenon without some initial model to work from? If use is made of an initial model, the source of the initial model is unclear. There is also the issue of how an individual retrieves the appropriate representation to deal with a given situation (Marton & Booth, 1997). Further, cognitivism presupposes that there is a fixed way of defining any situation. This is problematic given that individuals have their
own unique representations or can change their representations in the light of new experience (Watkins, 2000).

An SRO would already have a mental representation of SRO accountability when they were made accountable for a project. The source of this representation is however unclear. Similarly, the sources of different representations of SRO accountability held by SROs are attributed to differences in the complexity or richness of their individual representations without any explanation of the source of these variations. A change in the meaning of accountability for an SRO is attributed to the acquisition of a more widely accepted representation, again without any account of either the representation used to identify and process the revised representation of accountability or its source.

**Individual Constructivism**

Individual constructivism proposes that knowledge is ‘constructed by the mind’s ability to actively explore and develop its own meaningful accounts of phenomena’ (Watkins, 2000: 98). Knowledge is ‘constructed through her acts, through her interaction with the environment by means of complementary adaptive mechanisms of accumulation and assimilation’ (Marton & Booth, 1997: 6). These interactions are transformed into personally constructed interpretations of the world. Differences in meaning are the result of different interpretations by individuals. Changes in meaning are the result of individuals creating and re-creating their interpretations (Watkins, 2000).

The main criticism of individual constructivism is its focus on individual interpretation. ‘If knowledge of a phenomenon is a product of an individual’s unique interpretations, then how is it possible for an individual to truly know what another individual means when engaged in the act of communication?’ (Watkins, 2000: 98-99). This suggests that meanings cannot be shared between individuals, so it is not possible for a researcher to share an SRO’s understanding of accountability. Individual constructivism also suggests that ‘one individual’s meanings are as good as any others’ (Watkins, 2000: 99) and therefore it is difficult to establish which ways of thinking about accountability are more useful than others.

In the case of the SRO, individual understanding of accountability is constructed through the accumulation and assimilation of previous and concurrent interactions with the social and physical aspects of accountability. These interactions are transformed into an individual interpretation of accountability that has meaning for the individual. Different meanings of accountability are ascribed to differences in individual conceptual abilities. Changes in the meaning of accountability are the result of the development of a more complex interpretation in the light of a change in individual needs, for example arising from a question on a project raised in Parliament or by a Select Committee rather than by a line manager as part of a regular project review.
Social Constructivism

Social constructivism takes the view that knowledge is constructed by social groups rather than simply by individuals (Berger & Luckmann, 1966). In this case, ‘knowledge is viewed as a collaborative intersubjective construction and is appropriated by individuals from the socially organized practices of the group in which they participate’ (Watkins, 2000: 99). Knowledge is appropriated by individuals from the wide range of different social groups that any one individual can belong to. Knowledge then ‘begins with the fact that I do not know everything known to my fellowmen and vice-versa, and culminates in exceedingly complex and esoteric systems of expertise’ (Berger & Luckmann, 1966: 60). Differences in meaning are attributed to differences in social practice. Changes in meaning are the result of developing social practices and reflect the increasing participation of individuals in social groups.

The main weakness of social constructivism is that individual meanings tend to disappear in favour of collective ones. The collective social practice of accountability appropriated by the SRO in the course of a project is not unique, and all SROs would tend towards appropriating the same meaning. Therefore if a collective experiences a change in the meaning of a social practice, there is an assumption that ‘each individual sees these influences and responds to them in the same way as others’ (Watkins, 2000: 100).

From a social constructivist perspective, SRO accountability would be constructed by the social groups with which the individual SRO is involved, such as the project’s sponsoring group, its contractors and advisors, and the hierarchy of the parent department for the project. Differences in the meaning of accountability reflect the different orientations of different groups to the project. For example, from the contractor’s perspective the SRO is accountable for payment and the provision of information, but from the sponsoring group’s perspective the SRO is accountable for the outcome of the project. Changes in the meaning of accountability for the SRO are the result of the continual development of social practices amongst the various groups, such as the accountability practice developed in the course of regular sponsoring group review meetings.

Sinclair’s (1995) study of the CEOs of 15 Australian public sector agencies took this approach and found that the CEOs exhibited ‘a chameleon-like accountability towards competing constituencies’ (Sinclair, 1995: 231). Sinclair found that accountability was continually being constructed, with five different forms of accountability discerned in the CEO’s discourse: political, public, managerial, professional and personal. The study exhibits the limitations of the social constructivist approach, in that all the CEOs appropriated the same meanings of accountability. There is no recognition that individual CEOs may have different understandings as a result of different personal experiences. Further, the study assumes that the individual CEOs have responded to the changing accountability demands placed on them in exactly the same way, thus ignoring the possibility of different individual responses. So whilst this represents a valuable contribution towards our understanding of individual accountability, it reveals the inherent limitations of its approach.
Limitations of Dualistic Approaches
The four approaches outlined thus far have in common two further limitations in relation to the study of individuals’ accountability. First, they are all based on a dualistic model of the relationship between the individual and the world. They ‘commit their respective proponents to maintaining a philosophical dilemma that has remained unanswered since Socrates’ (Watkins, 2000: 101). This is known as ‘Meno’s paradox’, that knowledge is separate from the individual. Knowledge of accountability becomes separate from the steward, the person who has to give an account. This raises the question of how an individual gains knowledge from a separate source (Marton & Booth, 1997) – from within or without. Social approaches deny the role of the individual in creating their own models, whilst individual approaches deny the impact of social groups in the creation of knowledge. Thus in each case a potentially significant source of knowledge may be left unexamined.

The second limitation shared by the four approaches described above is that they examine a ‘researchers’ prescriptive theorizing’ (Watkins, 2000: 101) about how individuals might experience a phenomenon through the formation of habits, or mental representations, or individual interpretations, or social practices. They do not examine a phenomenon as it is experienced by an individual. The ability of any one of these approaches to offer a viable explanation of learning about a phenomenon is therefore limited by its failure to use the individual’s life world experience of that phenomenon, that is their experience of that phenomenon in the world in which they are immersed (Marton & Booth, 1997) as the basis for a theoretical explanation of learning about a phenomenon.

Together these limitations suggest that an alternative approach, one that adopts a non-dualistic view of the individual-world relationship, would overcome the limitations of these four approaches.

The Experientialist Approach
Experientialism, otherwise labelled phenomenography, is a subjective, experiential, interpretive research approach that adopts a non-dualistic epistemology because it is based on the fundamental assumption that both the person and the world are ‘inextricably related through a person’s lived experience of the world’ (Sandberg, 2000: 11). Phenomenography has as its primary focus the meaning structure of lived experience, ‘that is, the meaning of an aspect of reality takes on for the people studied’ (Sandberg, 2000: 12).

Phenomenographic enquiry avoids the limitations that arise from the position adopted by the socially-based or individually-based approaches outlined earlier by virtue of its non-dualistic epistemology, whereby knowledge of a phenomenon is assumed to be gained through participation in situations in which the phenomenon is present. So an individual’s knowledge is constituted through their participation in the
world. As they participate they experience the understandings of others (as proposed by behaviourists and social constructivists) as well as their own understandings (as proposed by cognitivists and individual constructivists) (Watkins, 2000). This overcomes the principal limitation of the dualistic approaches outlined earlier, that individual based approaches prized individual meanings over social ones and vice versa. The differences that arise from this alternative epistemological position are summarized in Table 1.
Table 1: A Summary of 5 Approaches to Individual Understanding. Based on Watkins (2000).

<table>
<thead>
<tr>
<th>Approach</th>
<th>Behaviourism</th>
<th>Cognitivism</th>
<th>Individual Constructivism</th>
<th>Social Constructivism</th>
<th>Phenomenography</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meaning for the individual.</td>
<td>Created through repeated association of a particular behavioural response with an external stimulus.</td>
<td>Developed through the use of mental representations to make sense of unstructured phenomena.</td>
<td>Constructed by individual through interaction with environment.</td>
<td>Constructed by social groups and appropriated by the individual.</td>
<td>Gained through participation in situations in which phenomenon is present.</td>
</tr>
<tr>
<td>Changes in knowledge by individuals.</td>
<td>The result of environmental changes.</td>
<td>The result of learning to apply a representation to similar or dissimilar phenomena.</td>
<td>The result of changing individual needs.</td>
<td>Due to the ongoing development of social practices.</td>
<td>Changes in the content and structure of life-world experience of a phenomenon.</td>
</tr>
<tr>
<td>Differences in knowledge between individuals.</td>
<td>Due to different reinforcement histories.</td>
<td>Due to variations in the richness and complexity of mental representations.</td>
<td>Due to different interpretations and different conceptual abilities.</td>
<td>Attributed to differences in social practice.</td>
<td>Due to differences in awareness and experience of different aspects of phenomena.</td>
</tr>
<tr>
<td>Ontological Assumptions.</td>
<td>Dualist ontology – person and world are distinct entities.</td>
<td>Dualist ontology - person and world are distinct entities.</td>
<td>Dualist ontology - person and world are distinct entities.</td>
<td>Dualist ontology - person and world are distinct entities.</td>
<td>Non-dualist ontology – person and world are a single entity.</td>
</tr>
<tr>
<td>Particular Limitations.</td>
<td>Individuals are passive uncritical respondents to stimuli. No conscious thought required, only conditioning.</td>
<td>Source of representations unclear. Means by which a particular representation selected also unclear.</td>
<td>Individual constructions cannot be shared between individuals.</td>
<td>Understatement of individual meaning: focus on social meanings. Individuals respond to changes in social meaning uniformly.</td>
<td>Limitations of accessing an individual's life-world experience. Only their statements can be accessed.</td>
</tr>
<tr>
<td>Accountability.</td>
<td>Accountability for a number of projects before any meaning acquired by the individual.</td>
<td>Individual sponsor would require an existing model of project accountability to understand project accountability.</td>
<td>Accountability takes on meaning through interaction of individual with social and physical aspects of accountability.</td>
<td>Accountability is constructed by social groups involved with a project. Sponsor appropriates meanings.</td>
<td>The meaning of accountability is created from the individual life-world experience of accountability.</td>
</tr>
</tbody>
</table>
For a researcher it is easy to assume that the number of ways of knowing about a phenomenon is virtually unlimited, due to our unfolding experience of the world. Yet there are constraints on that number, since we are unable to be aware of all the possible ways of experiencing phenomena. Further, we coexist within a set of common social contexts. Both these factors lead to a set of similar experiences of a phenomenon (Watkins, 2000), and thus any aspect of reality is discerned in a limited number of qualitatively different ways (Marton, 1981). For example Sandberg (2000) found three qualitatively different conceptions of engine optimization across 20 individuals.

When this concept is applied to Propositions 1 and 2 we suggest:--

Proposition 3: The different understandings of accountability held by an individual SRO will be classifiable as one of a limited number of qualitatively different conceptions, ranging from the official, objective definition to a wider, more subjective understanding.

A further aspect of these qualitatively different way of experiencing a phenomenon - or conceptions - that has great significance for the study of human performance is that these conceptions form a hierarchy of increasing complexity, from the less inclusive and less complex to those that are richer in nature (Marton & Booth, 1997). When this idea is applied to individual accountability and is taken in conjunction with Proposition 3, we suggest:--

Proposition 4: The different ways in which individual accountability is conceived can be arranged as a hierarchy of increasing complexity, ranging from simple interpretation of the official, objective definition to a richer, more subjective understanding.

Proposition 5: In relation to project performance (itself an objectively-defined phenomenon subject to subjective interpretation) higher-level conceptions of accountability will lead to perceived superior outcomes.

In relation to accountability, changes in meaning occur when individuals experience changes in the content and structure of accountability. These changes can be described as ‘layers of experience that indicate increasingly complex ways of experiencing’ (Watkins, 2000: 103) a phenomenon - in this case accountability. Differences between individuals can be seen as differences in individuals’ ways of seeing their accountabilities. Empirical research into individual understanding of accountability would aim to establish the limited number of understandings of individual experiences of accountability, ‘to define the meanings of the parts that form the experiences, illustrate the arrangement of parts in differing patterns of temporal awareness’ (Watkins, 2000: 103-104) and to show how experiences of accountability are ‘interrelated and ordered according to their complexity’ (Watkins, 2000: 104). A phenomenographic study that attempted
to answer the research propositions we have outlined here would produce two principal results. First, it would enumerate the qualitatively different conceptions of accountability amongst SROs. Second, it would arrange these conceptions into a hierarchy of increasing richness and complexity. These will increase our knowledge of the different ways in which individuals understand accountability not just in the field of IT management, but potentially across the field of public administration in the United Kingdom.

**DIRECTIONS FOR FURTHER RESEARCH**

Many important contributions have been made by scholars who have explored accountability at the institutional level both in the UK and elsewhere. This paper extends this literature by focusing on the individual civil servant, a figure in the contemporary British political landscape who is increasingly being expected to bear the mantle of accountability for the outcome of IT capital projects. The paper consolidates knowledge of accountability by tracing the changes in the accountability of individual civil servants over the last 25 years and relating them to this new level of analysis. Research along the lines we have indicated would be a contribution to our understanding of both individual and institutional accountability. It would also open the way for research into the degree of conflict or coherence between them, thus offering the prospect of a more comprehensive understanding of accountability.

Given the ongoing trend in the accountability of individual civil servants, there is a rich seam of further research opportunities that have the potential to significantly add to our understanding of both accountability and the management of projects in the public sector in two distinct areas. First, there are other distinct roles in the British Civil Service where there are opportunities to add to our knowledge of accountability. In particular, Accounting Officers and the Chief Executives of ‘Next Steps’ agencies, where there are clearly defined accountabilities. The cognitive and subjective limitations we have set out in this paper suggest the existence of rich, complex understandings of accountability that are not understood at the moment. Given the significance of these roles in the development and implementation of policy, research in these areas has the potential to further contribute to our understanding of accountability and to add to our understanding of the operation of Government.

Second, the trend to the increased use of IT to deliver public services is unlikely to decline for the foreseeable future. This is a fertile area for further research. For example, project success is a desirable, but elusive phenomenon and like objectively defined accountability, is open to subjective interpretation. We have outlined in this paper the cognitive and subjective limitations of accountability in relation to project success. Research into what constitutes project success that takes into account these limitations would provide a valuable insight into how the performance of public sector IT projects could be improved.
Conclusion
In this article we have reviewed five different ways that individual understanding of accountability can be researched. We have focussed on the trend towards a more managerial, individually accountable civil servant in the context of an area of growing importance, IT capital projects. We have attempted to show that accountability for meeting project performance targets has limitations as a result of subjective and cognitive aspects of understanding. This paper outlines the theoretical basis for the existence of a range of qualitatively different understandings of accountability. We have argued that the adoption of an experientialist, phenomenographic research approach offers a powerful means of exploring individual understandings of accountability. We conclude that given the trends to individual accountability and increased used of IT in the delivery of public services there are significant research opportunities. Empirical investigation of these will increase our knowledge of the different ways in which individuals understand accountability across the field of public administration and contribute towards a better understanding of what constitutes a successful IT project.
Reference List


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