ORGANISATIONAL RELATIONSHIPS AND THE 'SOFTWARE' OF HEALTH SECTOR REFORM

BACKGROUND PAPER

Disease Control Priorities Project (DCPP)
Capacity Strengthening and Management Reform

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Preface

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INTRODUCTION

> *"The tendency in public health is to portray policy reform as a technocratic or economic process. Both economists and health policy analysts tend to provide detailed prescriptions on what should be done, but without clear instructions on how to do it and without good explanations of why things go wrong." (Reich, 1995) (pg 60)*
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> *"Health system reforms have until recently tended to focus primarily on structural change." (Scott et al. 2003) (pg 923)*
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> *"Economistic theoretical underpinning of state sector reform invoke mechanistic (rather than organic) metaphors of organizational analysis; they address problems of instrumental rather than substantive rationality; and they are strongly reductionistic rather than holistic in their interpretation of the structural and human dynamics of governmental processes" (Gregory, 1999) (pg 66)*

The notion that health systems, particularly those in low- and middle-income countries, are in urgent need of reform is now firmly entrenched. However two to three decades of health sector reform appear to have done little to improve the stated problems of health system effectiveness, efficiency and responsiveness.

In developing countries, the package of suggested health sector reforms has generally included (Cassels, 1995; Gilson and Mills, 1996; Mills et al. 2001):

- organisational reform and restructuring (decentralisation, downsizing, introduction of performance related incentives, 'corporatisation');
- broadening health financing options (introduction of user fees, community financing or social health insurance);
- encouraging greater diversity and competition in health service provision (privatisation, establishment of public-private partnerships); and
- increasing the role of health service consumers (prioritisation of user choice, mechanisms to increase community accountability and participation).

In both developed and developing countries, health sector reform is usually part of a broader programme of public sector reform which has come to be know as New Public Management (NPM) (Mills et al. 2001). Minogue *et al* (2000) have defined the key themes of NPM as:

> *"The achievement of the objectives of economy and efficiency, in the context of relations between the state and the market, and an explicit emphasis upon the dominance of individual over collective preferences" (pg 4-5).*

Therefore, NPM reforms have focused on privatisation, the restructuring of public services, and the introduction of private market disciplines into public administration (Minogue, 2000). In sub-Saharan Africa, NPM and the strengthening of civil society are presented as essential for the development of 'good governance' (World Bank, 1989; Landell-Mills and Serageldin, 1991).

One line of criticism of health sector reform and NPM, highlighted by the quotes at the beginning of this paper, is that they have tended to focus on standardised packages of technical and structural interventions based on simplistic assumptions about human behaviour, what Gregory (1999) has termed *"economistic reductionism and technocratic structuralism" (pg 65).* This is the discussion that will be taken up in this background paper.

The debate is clearly not new but we will argue that the dominant discourse in health systems research and health sector reform still reflects a preoccupation with the infrastructure, technology and economics of health systems rather than its human and social dimensions, the 'hardware' of health systems rather than the 'software', and that this way of thinking has contributed to the failure of recent initiatives to significantly improve health system performance. We are primarily concerned with health sector reform in developing countries but the argument also has some relevance to initiatives in developed countries. We suggest that the health systems literature has tended to overlook the everyday organisational reality of health systems[1], and propose that there are useful insights to be gained from the field of organisational and institutional studies, which has long viewed organisations as social and cultural systems rather than simple production systems (Scott, 1995).

[1] There are different definitions and interpretations of 'health systems'. It is clear that in this paper our focus is mainly, though not exclusively, on what others may label 'health services', rather than the health system in its broadest sense. Nevertheless, we prefer to use the term 'health system' to emphasise the multiple organisations, actors and support systems that contribute to service delivery.

The first section of the paper reflects on the linkages between health sector reform and social theory, and the relevance of organisational and institutional studies in particular. The next part of the paper outlines three different perspectives on the nature of organisations and human behaviour within organisations. We contrast the mechanistic and economistic approaches of current reform initiatives with the more socio-cultural perspective that prevails in organisational studies and then consider the prospects and possibilities of a more integrated approach. The final section of the paper provides an initial framework for focusing on the nature and arrangement of organisational relationships within the health system and suggests that this might be one way of taking the discussion forward.

HEALTH SECTOR REFORM AND ORGANISATIONAL THEORY

Frederickson and Smith (2003) claim that *"theory is the bedrock of understanding public administration" (pg 2)*, despite the inherently practical and applied nature of the field. They argue that common sense approaches are inadequate and that the development and use of theory is necessary to support the creation of knowledge that is retraceable and cumulative.

The health systems literature has traditionally been much less concerned with broader social theory (Bossert et al. 1998; Atkinson, 2002; Gilson, 2003a), although there are some exceptions to that trend. For example, the health policy analysis literature has frequently utilised theoretical insights from politics and policy studies (Walt, 1994; Walt and Gilson, 1994), and new institutional economics theory has been influential in recent approaches in health economics and financing (Mills et al. 2001; McPake et al. 2002). There are also a few examples of the use of organisational and institutional theory in the analysis of health sector reform (Aiken et al. 1997; Bossert et al. 1998; Unger et al. 2000; Parker and Bradley, 2000; Atkinson, 2002). Nevertheless, it would be difficult to describe this sporadic, selective and somewhat eclectic application of social theory as a concerted and sustained project aimed at developing a body of theory in relation to health sector reform.

There are a number of possible reasons for the neglect of social theory within health sector reform research and practice. Firstly, the field of health systems studies is still rather new, at least in comparison with other disciplines, and may require some time to mature before engaging more actively in theory construction. Secondly, the field has its origins within the discipline of public health (rather than organisation studies or political science, for example). The discourse remains dominated by public health experts, epidemiologists and economists who actively defend their practical and pragmatic approaches, and have little training or orientation to social science. Lastly, the biomedical origins of the field may have something to do with the persistence of natural science modes of thinking – that there are natural laws to be discovered in health systems – rather than the recognition that health systems are complex socio-cultural-political systems requiring sociological methods of enquiry. It is interesting

that while most contemporary social discourse is concerned with developing post-positivist methodological approaches, health sector reformers are arguing for more quantification and better evidence – a movement that is probably more old positivist than neo-positivist (Donaldson, 2003).

What then of the organisational and institutional literature? There is significant reluctance among contemporary organisational and institutional theorists to provide single-sentence definitions of their fields (Scott, 1995; Jaffee, 2001). Westwood and Clegg (2003) simply describe organisational studies as the contested discursive terrain concerned with organisations. The academic study of organisations began in the early 20th century and its multi-disciplinary origins, attracting researchers from psychology, sociology, economics and political science, have contributed to the heterogeneous nature of the discourse. Institutional theory, on the other hand, is a more recent development and is concerned with the study of societal institutions - the rules, norms and cultural beliefs that shape human interactions including organisations (Scott, 1995).

There may be reasons why organisational and institutional theory, in particular, have been ignored in the health systems literature. Firstly, the academic field of organisational studies is sometimes confused with the more populist tendencies within management studies, typified by the so-called management 'gurus' (Micklethwait and Wooldridge, 1996; Collins, 2000), and therefore viewed with suspicion. Secondly, organisational theory may be seen as more corporate or relevant only to the private sector. Much of the organisational literature, in contrast to the management literature, has attempted to focus on generic organisational functioning. However, it is true that the particular issues of modern public sector organisations have received less attention. On the other hand, institutional theory has significant application within public sector organisations. Thirdly, as we shall see, organisational studies is characterised by fragmentation and contestation (Burrell and Morgan, 1979; Westwood and Clegg, 2003) which deters practitioners looking for simple answers (Pfeffer, 1993). Lastly, there is a problem related to different levels of analysis. Frequently, health system researchers see themselves as concerned with the macro level of the health system, rather than the organisational level (Fulop et al. 2001). Our approach is a little different in that we consider the

system as the totality of individuals, organisations and interactions, a more bottom-up perspective (Sheaff et al. 2003). Our concern is that from the macro-level viewpoint it appears as if the system structure, priorities, financing, regulation etc can simply be rearranged at will, whereas, in reality, these reforms require significant changes in organisations, relationships and individual behaviour. This is the basis of our argument that health sector reforms should pay more attention to the micro-level, everyday organisational reality of health systems.

The organisational and institutional literature doesn't provide any simple answers to the problem of health sector reform but may stimulate new questions and new ways of thinking. Jaffee (2001) has outlined a simple conceptual framework for the analysis of organisational theory that distinguishes between two levels of organisational analysis and two fundamental organisational transactions that generate tension and change. The two levels of analysis are:

- intra-organisational: internal interactions and characteristics; and
- inter-organisational: external interactions between organisations, and between organisations and their environment.

The two key tensions are:

- structuring the differentiation and the integration of activities; and
- understanding and managing the human factor in organisations.

There is sufficient overlap between this synopsis of organisational theory and some of the key issues in health sector reform to suggest to us that an exploration of the organisational literature may be beneficial.

There are obvious parallels in the concern with organisational structure. Organisational studies has long advocated an open-systems, contingency approach to organisational structure (Woodward, 1965; Thompson, 1967; Lawrence and Lorsch, 1967; Pugh et al. 1969) that resonates with criticisms in the health systems literature about the failure of structural reforms, such as decentralisation, to recognise the importance of contextual differences (Mogedal et al. 1995; Gilson and Mills, 1996; Collins et al. 1999; Atkinson et al. 2000). In addition the contemporary version of contingency theory gives much more credence to organisational choice and strategy – recognising that there may, in fact, be more than one best solution in

particular contexts (Trist et al. 1963; Child, 1982; Grandori, 2001). This insight has not yet been adequately considered in the health sector reform literature.

The main objective of this paper is to focus on the second tension identified by Jaffee and emphasise that health systems are made up of reflective, reactive, socially-connected human beings in addition to technology and infrastructure. However, as we shall see, the discussion frequently returns to organisational structure since recommendations for restructuring are strongly influenced by underlying attitudes to human behaviour.

DEALING WITH THE HUMAN FACTOR IN ORGANISATIONS

As was highlighted above, understanding and managing the human dimension of organisations is a central preoccupation of organisational and institutional theory. However, there is no simple uniform understanding of this problem. Not only has organisational theory developed significantly since its beginnings in the early 20th century but different disciplines have emphasised different approaches and solutions. Interestingly, contemporary organisational and management practice is a complex amalgam of these varied, and sometimes contradictory, approaches.

Many authors have attempted to develop a meta-theoretical framework for the categorisation of organisation theory. Jaffee's (2001) summary of the key levels and tensions in organisational studies discussed in the previous section is one such outline. Another influential approach is that of Morgan (1997) who described eight different metaphors or mental models for the ways in which organisations had been conceptualised in the literature and in practice (Table 1).

Table 1: Morgan's eight metaphors of organisations

Metaphor	Description
1. Machine	Technical instruments to produce outcomes Humans are part of organisational machine
2. Organism	Adapt and respond to environmental conditions
3. Brains	Information-processing, decision-making and learning
4. Cultural systems	Interactive humans Share values, beliefs, culture
5. Political systems	Competing and conflictual power struggles
6. Psychic prisons	Shape psyche and thinking Construct meaning
7. Instruments of domination	Tool to advance interests of particular groups in society
8. Flux and transformation	Constant state of flux and change.

This is a little complex for our purposes so we will begin with a simplified, and somewhat modified, version of this categorisation. The three main metaphors or perspectives we will focus on in this section are:

1. the mechanistic perspective;
2. the economic perspective; and
3. the socio-cultural perspective.

Our mechanistic perspective is equivalent to Morgan's machine metaphor and the socio-cultural perspective is similar to what he calls the cultural systems metaphor. Interestingly Morgan does not have a model analogous to what we have called the economic perspective [2].

Our selective categorisation is clearly influenced by the parameters of the debate we set out in the introduction, namely that current health sector reform initiatives are overly technocratic and economistic, and that more socialised approaches are required. It also helps frame a later discussion on the nature of organisational relationships which derives from the idea that hierarchies, markets and networks are three distinct organisational forms in contemporary society. We will return briefly to some of the other metaphors listed in Table 1 at the end of this section.

The notion of the organisational metaphor is important. These different perspectives represent different ways of seeing and thinking about organisations. The perspectives are intentionally presented as archetypes to highlight three distinct tendencies, and disciplinary traditions, within organisational research (and health sector reform). However, most organisations contain elements of all three types and few theorists (or reformers) would subscribe completely to any of the purist versions presented here. One of the key questions in organisational studies is to what extent these competing tendencies are compatible or complementary.

Some of the key theoretical aspects of each perspective are summarised in Table 2. For each perspective, there is a close relationship between the basic premise of the perspective, the desired organisational form, the main coordinating mechanism and the underlying assumptions about human behaviour.

[2] In fact, such a model is not often described in traditional organisational theory - the rational economic perspective is generally seen as part of the mechanistic perspective. However, there are important differences between the two, such as whether people are controlled by rules or economic incentives, to justify their separation and to enable us to relate them to different tendencies within health sector reform.

Table 2: Three perspectives of organisational life

		Machine Perspective	Economic Perspective	Socio-cultural Perspective
Theoretical Considerations	*View of organisation*	Clearly defined parts working efficiently together in routinised ways	Atomistic economic actors engaged in market relations	Reflective, responsive people forming a complex social system
	View of human behaviour	Compliant : Humans simply comply with organisational changes	Calculating : Humans are individualistic & motivated by self-interest	Social : Human behaviour is influenced by social networks and relationships
	Organisational form	Hierarchy Bureaucracy	Market	Social network Community Clan
	Coordinating mechanisms	Formal rules & procedures Authority	Prices Competition Financial incentives	Norms Values Trust
	Classical organisational theory	Scientific management Classical mangement theory	Neo-classical economics Neo-institutional economics	Human relations theory Bureaucratic studies
	Key organisational theorists	Taylor (1911) Weber (1947) Fayol (1949)	von Hayek (1949; 1960) Friedman (1962) Coase (1937; 1983) Williamson (1975; 1981; 1985)	Roethlisberger & Dickson (1939) McGregor (1960) Gouldner (1954) Merton (1957) March & Simon (1958)
Linkages to Health Sector Reform	*Content of health sector reform*	Restructuring, decentralisation Scientific search for best technical solutions	Privatisation, outsourcing Internal markets, competition Performance management	Strengthening norms & values Democratisation
	Processes of health sector reform	Top down implementation Standardised packages	Top down implementation Modify incentive structures	Consultative Participative
	Required management capacity	Authority Legal Technical	Financial management Contract management	Participative leadership Relationship management Promote norms and values

However, different terms have come to be used in different literatures, which contributes significantly to the confusion. For example, the new institutional economics literature tends to talk about different organisational forms, as exemplified by the classical debate about hierarchy versus market (Williamson, 1981), whereas others may prefer to focus on the different coordinating mechanisms (Grandori, 2001; Douma and Schreuder, 2002), price versus authority in this case.

Table 2 also attempts to demonstrate the relationship between each perspective and current health sector reform initiatives in developing countries, both in the content of proposed reforms as well as the way in which they are being implemented.

We will discuss each of these perspectives in turn, paying somewhat more attention to the socio-cultural perspective. We conclude this section by considering the prospects and possibilities of a more integrated approach that combines insights from each of the separate metaphors.

The Mechanistic Perspective

The machine metaphor is a very common way of understanding and managing organisations, including health systems. From this perspective the organisation is viewed as the ordered arrangement of clearly defined components which then work together efficiently and reliably. This mechanistic view of organisation is exemplified by the preoccupation with the formal organisational organogram.

The bureaucracy with its clearly defined division of labour, hierarchical structure and impersonal organisation is still the standard archetype of the mechanistic perspective. In the machine bureaucracy the component parts and functions are coordinated by formal rules and procedures. Tasks are highly routinised with a rigid division of labour into functional departments. This perspective actually pays very little attention to the human dimension of organisations. People are seen as cogs in the organisational machinery, and are expected to simply comply with organisational or managerial changes that improve organisational functioning and efficiency.

In organisational theory, this perspective is associated with Taylor's scientific management and the classical management theories that were promoted in the early 1900s. Frederick Taylor was an industrial engineer who applied engineering principles to the organisation of work. He developed four basic principles of scientific management (Taylor, 1911) that, although frequently criticised, have been very influential in organisational theory:

1. Use scientific methods to analyse a task and then identify the best way of doing it. Provide standardised procedures for each task.
2. Scientifically select the best worker for the job. Use scientific training methods for the development of workers.
3. Monitor work performance to ensure procedures are being followed.
4. Separate the work of workers and managers.

Classical management theory is associated with Henry Fayol and Max Weber. Fayol (1949) identified 14 principles of management which defined in some detail how the different parts of the organisation should work together. Fayol's principles, which include aspects such as unity of command, centralisation of authority, discipline, subordination of personal interests, and span of control, have become firmly established in the practice and lexicon of modern bureaucracy. Weber (1947) is a more complex organisational theorist. Although he provided a classical definition of the central elements of rational-legal bureaucracy, he was also concerned with the human consequences of bureaucratisation. He argued that the bureaucracy may improve organisational efficiency but at the cost of individual freedom and creativity. This was one of the first statements of the fundamental tension of human organisation.

As we shall see, scientific and classical management theory have long been replaced by more humanistic approaches in organisational studies. However, many organisations, both public and private, are still organised on bureaucratic and hierarchical lines. Rather than just historical precedence, the bureaucracy persists because it is suited to organisations that perform standardised activities on a large scale in environments that are simple and stable (Mintzberg, 1983). Nevertheless it remains an unfavourable organisational configuration for humans resulting in significant alienation and frustration (Blunt and Jones, 1992).

It is not too difficult to identify aspects of the mechanistic perspective in the current content and processes of health sector reform in low- and middle-income countries. A common diagnosis is that the health system machine is operating inefficiently and is therefore in need of re-engineering. Therefore, the definition of problems, and solutions, tends to focus on the structural and technical dimensions, rather than the human component, of organisation.

Reforms such as decentralisation, the creation of executive agencies, and the endless modification of organograms, demonstrate the belief that new formal arrangements of the system will solve the problems. Significant effort is also being expended on finding the best technological approaches, for example in the definition of cost-effective interventions and essential packages of care. This obsession with identifying scientific solutions is actually quite Taylorist in orientation. The underlying assumptions - such as that there is one best way to organise and that there are objective methods of discovering it - are seldom questioned.

There is very little attention to process in most health reform initiatives (Gilson and Mills, 1996; Atkinson, 2002). Strategies that rely on top-down implementation, the formulation of new rules and procedures, or the specification of standardised packages, are in keeping with the mechanistic perspective. The expectation is that people will simply comply and implement changes in order to improve organisational performance.

Clearly, certain structural and technological changes may be necessary in health sector reform but it is not clear that these are the most important changes required to improve health system functioning. It is rare, for example, that health worker attitudes, rather than efficiency, is defined as the central problem of health systems (Gilson, 2003b), but the range of reforms required would be very different if it were. Another fundamental limitation of the mechanistic perspective in relation to the process of health sector reform, is the assumption that the health system bureaucracy is governed by rationality and that, therefore, health care managers and workers will be motivated by claims of improvements in organisational functioning.

The Economic Perspective

The economic perspective in organisational studies has been influenced by two important schools in contemporary economics; neo-classical economics and neo-institutional economics.

Neo-classical or neo-liberal economics refers to the revival of classical liberal economic theory in the 1960s and 1970s by theorists such as Friedrich von Hayek (1949; 1960) and Milton Friedman (1962). Neo-classical economic theory is more concerned with the macro-economic than the organisational level but it has had a profound influence on the recent restructuring of public sector organisations through the discourse of new public management. Simply stated, neo-liberals are sceptical of the need for any state development planning and claim that large scale state intervention has resulted in inefficiency, rent seeking, bloated bureaucracies and corruption. They argue that a reduction in the role of the state and a return to market mechanisms will improve productivity, efficiency, flexibility, and fairness (Thomas and Potter, 1992).

Neo-institutional economics recognises that the functioning of markets is influenced by institutional frameworks that govern economic transactions (North, 1990). Neo-institutional theorists have focused on a range of issues including transaction costs (Coase, 1937; Williamson, 1981; Williamson, 1985), agency problems (Fama, 1980; Pratt and Zeckhauser, 1985), and property rights (Coase, 1960; de Alessi, 1983). Within organisational studies new institutional economists have been concerned with understanding the economic imperatives that drive the establishment and design of organisations and inter-organisational relationships (Westwood and Clegg, 2003).

The economic perspective is driven by its view of human behaviour, the so-called *Homo economicus* model. In neo-classical economics, the assumption is that humans are rational and individualistic and can be expected to act in their economic self-interest. Social influences on human behaviour are ignored as exogenous and irrelevant (Biggart, 2002). However, it must be said, the economic perspective actually pays more attention to the human dimension of organisations than the mechanistic perspective does. From an organisational and managerial point of view,

the self-interested behaviour of people needs to be taken into account in the structuring of institutional arrangements but it also provides a means of control and motivation – simply requiring the correct combination of positive and negative financial incentives to get people to behave appropriately. In this perspective, the market is the ideal organisational form and activities are coordinated through market mechanisms such as price, competition and financial incentives (Table 2).

The behavioural assumptions in neo-institutional economics are more complex. The fundamental formulation of this approach derives from Oliver Williamson's work on transaction cost economics (Williamson, 1975; Williamson, 1981) which proposed that human behaviour is also influenced by:

- bounded rationality: people may intend to be rational but information and processing constraints significantly limit rational decision-making, particularly in uncertain and complex environments; and
- opportunism: people will try to exploit a situation to their advantage, what Williamson defined as 'self-interest with guile'.

There is some debate about whether these modifications represent a significant shift in thinking about human behaviour. Mills *et al* (2001) suggest that new institutional economics is an improvement on the poverty of neo-liberal economic approaches. On the other hand Scott (1995) argues that:

> *"There are important differences among contemporary institutional economists in the nature of their assumptions and the focus of their analytical attention. However, it is unquestionably the case that the new institutional economics is dominated currently by scholars who cling to the neo-classical core of the discipline while struggling to broaden its boundaries." (pg 33)*

However, it is true that it is the more simplistic formulations of neo-classical economics that predominate in new public management (Pollitt and Bouckaert, 2000; Lane, 2000; Minogue, 2000) and health sector reform (Mills et al. 2001). A key objective in most recent public sector reforms has been to shift responsibility from the state to the private sector. The argument has been that the government, or public health sector, should only perform functions that are subject to significant market failures (World Bank, 1993; World Bank, 1997). This has motivated a number of reforms including decentralisation, downsizing, outsourcing and privatisation. Enthusiasm for the private sector has also encouraged the introduction of market

mechanisms and corporate management approaches to improve performance and efficiency within the public health system. 'Marketisation' or 'corporatisation' strategies have included the promotion of internal markets, competition and contracting as well as the introduction of performance management systems and performance contracts (Walsh, 1995). The significant emphasis on health care economics, health care financing, cost-effectiveness and organisational efficiency within health sector reform are also consistent with the economic paradigm.

In terms of the process of health sector reform, economically-motivated reforms have also tended to be implemented in an unparticipative, top-down manner. In some instances, the strategy has been to focus on senior managers and strengthen the linkages between performance improvements and remuneration.

These organisational reforms derive from the rather pessimistic view of human nature and human behaviour within neo-classical, and neo-institutional, economic theory. To be fair, economists do not necessarily think that humans always act selfishly, only that they sometimes do so and it is difficult to predict before the event when people will choose to act opportunistically. Therefore, organisations and institutions are structured in order to deal with the worst case scenario and seek to achieve beneficial results despite the selfish interests of individuals. For example, Foss (1995) has stated that:

> *"Most neo-institutional economics is built on the assumption that people will usually do what is in their own individual interest. This is a caricature of actual human motivation and behaviour, but it is as we have noted a powerful analytical simplification." (pg xxviii)*

On the other hand, others have argued that pessimistic assumptions about human behaviour may be self-fulfilling (Gregory, 1999) and undermine the development of more collaborative behaviour (Mackintosh, 2000; Heyer et al. 2002).

The Socio-cultural Perspective

The central argument of this paper is that the mechanistic and economic perspectives of organisations, as outlined in the previous two sections, neglect the important social dimension of everyday organisational life. The socio-cultural perspective recognises that human organisational behaviour is fundamentally shaped by social interactions and relationships. Although it does not appear to have had much influence on health sector reform initiatives, this has been the dominant approach in organisational theory for decades. For example, in defining organisational studies, Ferlie and Mark (2003) describe the sociological perspective as a central feature of this field of study:

> *"It is particularly interested in how people behave within formally constituted organizations. It sees such behaviour as socially embedded, through such forces as norms culture, discourse, power relations and the role of institutions, rather than, say, the role of incentives, prices or market structures which is the domain of economics." (pg 313)*

There is a vast literature within organisational theory that supports the socio-cultural perspective. We will briefly discuss two classical areas of organisational study: the human relations school and the bureaucratic dysfunction studies.

Chester Barnard (1938) was one of the earliest organisational writers to identify the tensions between individual and organisational objectives which led him to conclude that dealing with the human element was the central problematic of organisational theory and practice. One of Barnard's important contributions was his theory of 'common moral purpose' which drew attention to the superiority of internal mechanisms of organisational motivation and control, through norms and morals, when compared with materialistic external control measures. However, Barnard's work is a little less clear about how to go about ensuring this normative attachment to organisational objectives.

The so-called Hawthorne studies at the Hawthorne plant of the Western Electric Company in Chicago in the 1920 studies resulted in the whole movement in organisational theory known as the human relations school. Originally constructed as a series of Taylorist experiments in scientific job design, the Hawthorne studies ended up demonstrating the importance of social phenomena on human organisational behaviour, including:

- the importance of informal social groups on increasing or limiting workplace motivation and performance;
- the relationship between groups standards and broader societal norms, customs and routines;
- the importance of relationships with supervisors; and
- that simple communication and interaction with workers can result in increased motivation and performance (the famous Hawthorne effect).

Early commentaries on the Hawthorne experiments established the key concerns of the human relations school. Elton Mayo (1933; 1939) focused on the tension between the social and psychological needs of workers and the technical, production orientation of organisations. Roethlisberger and Dickson (1939) highlighted certain unique characteristics of the human factor in organisations which mitigated against standardised, mechanistic approaches (Jaffee, 2001):

- different people bring different personal and social backgrounds to the work situation;
- sentiments toward work are continually shaped through ongoing social processes and interactions in the workplace; and
- non-rational aspects of organisations, the subjective and the emotional, also have to be managed.

Other early landmarks in the human relations school were Maslow's (1943) hierarchy of human needs and McGregor's (1960) Theory X and Theory Y. McGregor was concerned with the problems and unintended consequences of negative attitudes to human behaviour in organisations. He characterised the behavioural assumptions behind many organisations and management practices as Theory X (Table 3), and argued that these assumptions were self-fulfilling, actually contributing to poor motivation and performance in organisations. He suggested that organisations based on Theory Y assumptions (Table 3) would be more productive and competitive. In more recent times human relations theorists have applied sociological perspectives to a range of organisational issues including job design (Herzberg, 1966; Hackman et al. 1975), motivation (McCleland, 1961; Adams, 1963; Vroom, 1964), leadership (Fiedler, 1967; Vroom and Yetton, 1973; Hersey and Blanchard, 1988) and organisational culture (Jaques, 1952; Schein, 1985; Hofstede, 1986).

Table 3 : McGregor's Theory X and Theory Y of managing people

Theory X	Theory Y
1. People do not like to work and try to avoid it 2. People need to be controlled, directed, coerced and threatened to get them to work towards organisational goals 3. People prefer to be directed, avoid responsibility, want security and have little ambition	1. People do not naturally dislike work but see work as a natural part of their lives 2. People are internally motivated to reach objectives 3. People are committed to organisational goals to the degree that they receive personal reward when they reach objectives 4. People will seek and accept responsibility under favourable conditions 5. People have the capacity to be innovative in solving organisational problems 6. Intellectual potential of people is poorly utilised in most organisations

From (McGregor, 1960)

We now turn to the second area of interest within classic organisational theory - a number of detailed empirical studies in the 1940s and 1950s which provided significant insights into the functioning, and dys-functioning, of large bureaucracies. These studies demonstrated the divergence between how things were supposed to function, the formal rational-legal bureaucratic model, and how things actually worked in practice. They also documented the importance of human agency, resistance and innovation in everyday bureaucratic functioning (Jaffee, 2001).

Gouldner (1954), for example, showed that formal authority and rules in organisations still depend on the acceptance and compliance of workers. Moreover, people generally make such decisions on the basis of their own normative or subjective criteria which undermines the intended objective rationality of bureaucratic organisation. Gouldner also provided an early formulation of the agency problem in organisations – that workers often act in ways that are contrary and opposed to the owner's interests. Merton (1957) focused on the unintended consequences of bureaucratic functioning. His classic example is that obsessive compliance with organisational rules and procedures may actually undermine the overall goals and efficiency of the organisation, a phenomenon he termed goal displacement. The work of Peter Blau (1955) demonstrated how the identification of solutions that deviate from prescribed rules and procedures, and the use of informal networks for organisational problem-solving, are often critical to improving organisational performance and efficiency. He also provides one of the first accounts of the dysfunctional and distortionary effects of organisational performance indicators.

Lastly, March and Simon's research on organisational decision-making, and their concept of bounded rationality (Simon, 1947; March and Simon, 1958; March, 1978), was referred to previously in relation to neo-institutional economics. They argued that realistic organisational theory had to be based on the notion of administrators making satisfactory decisions rather than rational economic actors making optimal ones.

The human relations school and classical bureaucratic studies challenge the simplistic assumptions of the mechanistic and economic perspectives by highlighting the importance of cultural norms, social relationships and informal networks in organisational life. These classical studies were the beginning of a rich sociological tradition within organisational studies that has rarely been utilised in health system research and health sector reform.

More contemporary organisational writers have specifically challenged the economic perspective within organisational studies. An influential paper by Granovetter (1985) criticises what he called the 'under-socialised' assumptions of economic approaches to human behaviour, and provides a substantive critique of Williamson's transaction cost theory of hierarchies and markets. Granovetter's central argument is that economic action is both 'embedded' in and emerges out of complex networks of social relations that exist for reasons beyond mere economic utility. He claims that *"there is evidence all around us of the extent to which business relations are mixed up with social ones"* citing examples such as inter-locking directorates, relational contracts, long-term supplier networks, and quasi-firm relationships. Similarly, Perrow (1986) has criticised economic approaches for ignoring power dynamics and human agency within organisations, while Westwood and Clegg (2003) have commented on the underlying functionalism of neo-institutional economic theory.

Economic assumptions of self-interested and individualistic behaviour have also been questioned by economists (Caporael et al. 1989). A growing body of work in experimental economics from a wide range of cultural settings has failed to provide support for the traditional *Homo economicus* model of human behaviour (Roth, 1995; Ensminger, 2000; Fehr and Gächter, 2000). Instead, experimental subjects have

consistently been shown to care about fairness, cooperation and reciprocity even if these actions are costly to themselves (Henrich et al. 2001).

Returning to the characteristics of the socio-cultural perspective outlined in Table 2, we have used the notion of community or social network to refer to the organisation form associated with this metaphor. A number of authors have proposed that 'networks', 'communities' or 'clans' represent a third form of organisation in addition to the traditional duality of markets and hierarchies (Ouchi, 1980; Bradach and Eccles, 1989; Powell, 1990; Thompson et al. 1991; Adler, 2002). A simple definition of a social network is: *"A set of actors and the relations (such as friendship, communication, advice) that connect them" (pg 135)* (Kilduff and Tsai, 2003). Ouchi (1980) prefers to talk of a 'clan' to emphasise the shared culture and value systems of the group[3]. The term network is used in a number of different ways in organisations. We are using it here primarily to refer to the informal socio-cultural connections within organisations, between organisations, and between organisations and broader society. However, networks are also increasingly being utilised as a model for the formal restructuring of intra-organisational and inter-organisational relationships, in the creation of so-called network organisations (Powell, 1990).

Activities in social networks are coordinated by means of norms, values and trust. As Thompson (1991) states:

> *'If it is price competition that is the central coordinating mechanisms of the market, and administrative orders that of hierarchy, then it is trust and cooperation that centrally articulate networks".*

A common definition of trust is the subjective probability with which actors assess that other actors will perform a particular action (Gambetta, 1988). However, trust is a complex, multi-faceted, and contested concept (Gambetta, 1988; Coleman, 1990; Misztal, 1996; Warren, 1999; Sztompka, 1999). Adler (2002) summarises some of the key aspects of the debate by identifying different sources, mechanisms, objects and bases of trust discussed in the literature (Table 4). The exploration of trust and distrust within organisations and between organisations is an important new area of

[3] Ouchi also substituted 'bureaucracy' for 'hierarchy' arguing that coordination by rules and procedures reflects the bureaucratic rather than the hierarchical nature of these organisations. Nevertheless, Williamson's terminology continues to be more widely used.

work in organisational studies (Mayer et al. 1995; Creed and Miles, 1996; Kramer and Tyler, 1996; Lewicki et al. 1998; Kramer, 1999).

Table 4: Dimensions and components of Trust

Dimension	Components
Sources	▪ Familiarity through repeated interaction ▪ Calculation based on interests ▪ Norms that create predictability and trustworthiness
Mechanisms	▪ Direct inter-personal contact ▪ Reputation ▪ Institutional context
Objects	▪ Individuals ▪ Systems ▪ Collectivities
Bases	▪ Consistency, contractual trust ▪ Competence ▪ Benevolence, loyalty, concern, goodwill, fiduciary trust ▪ Honesty, integrity ▪ Openness

From (Adler, 2002)

The socio-cultural perspective raises problems for simplistic approaches to the coordination and control of work as well as the implementation of organisational change. Workers are reflective, responsive human beings embedded in networks of social relations rather than simply part of the organisational machinery or completely rational economic individuals. Therefore, they cannot be expected to simply comply with new policies or procedures and may not respond as anticipated to changes in incentive structures. A more socialised understanding of organisations recognises that internal rather than external control mechanisms are required. Managers have to learn how to develop shared goals, promote organisational values, maintain relationships, influence social networks, and build trust, rather than simply relying on hierarchical authority or financial incentives (Etzioni, 1961).

So how does this relate to health systems research and health sector reform in low- and middle-income countries? The dominant discourse in health systems is explicitly more techno-economic than socio-cultural, and most health care reform programmes have ignored the social dimension of health systems. It is true that the issue of human resources has begun to receive attention in the health reform movement (Adams and Hirschfeld, 1998; World Health Organisation, 2000; Buchan, 2000;

Alwan and Hornby, 2002) but, so far, the focus has tended to be on human resource planning rather than human resource management, or in the development of technical solutions, such as stricter control measures or performance management systems, that may actually serve to undermine organisational motivation and performance (Etzioni, 1961).

We suggest that the tendency to see health systems as a 'black box' - ignoring the complex, socio-cultural inner-workings of the organisations and networks that make up health systems - has contributed to the failure of recent initiatives to improve health sector functioning. There is some work in the health systems literature in support of our argument. A number of health system researchers, from different disciplinary perspectives, at different levels of analysis, and using different language, are attempting to draw attention to the socio-cultural dimensions of health system organisation. In the absence of uniform terminology we have termed these approaches collectively a concern for the 'software' of health systems [4]. Leat *et al* (1999) have expressed a similar idea in differentiating the 'strong' tools of new public management – regulation, sanctions, incentives – from the 'weak' tools of building networks, persuasion, information, changing cultures, learning systems.

At a more macro level, and from a more political tradition, political analysts (Baulderstone, 1996; Scott, 2000; Navarro, 2003) and health policy researchers (Walt, 1994; Walt and Gilson, 1994; Reich, 1995; Beyer, 1998; Collins et al. 1999; Glassman et al. 1999) have long pointed to the political nature of health system change and the importance of context and process. There is also an established literature on the relevance of social networks to health system functioning (Tolsdorf, 1976; Ailinger, 1977; Garrison et al. 1977; Berkanovic and Telesky, 1982; St Clair et al. 1989), which in more recent studies has led to an interest in social capital (Lomas, 1998; Aye et al. 2002; Edmondson, 2003). However, the work on social networks and social capital has tended to focus on community networks involved in health-seeking behaviour or coping with ill-health. On the supply side, inter-

[4] We are using 'software' figuratively to refer to the 'soft', human, social aspects of organisations, and not to organisational rules and procedures, a more literal interpretation of 'software', which we would associate with the mechanistic perspective.

organisational networks have attracted some interest (Sigmond, 1995; Collins and Green, 1999; Pedler, 2001; Green et al. 2002; Peltomaki and Husman, 2002), but there is very little work on social networks and social capital *within* health care organisations (Lesser, 2000). An interesting exception is the work of MacPhee (2000; 2002) that has explored the role of social networks in supporting nurses at work. Such work contributes to a more sociological approach to health worker motivation, that emphasises aspects such leadership, communication and cultural values, in addition to financial incentives or control measures (Franco et al. 2002).

A pioneering study by Atkinson *et al* (2000; 2002) has highlighted the importance of informal organisational dynamics and local socio-political culture on the implementation of health sector decentralisation reforms in Brazil. A few practitioners and researchers have begun to focus specifically on the notion of trust in public sector management (Baird and St-Amand, 1995a; Baird and St-Amand, 1995b; Ruscio, 1996; Baddeley, 1998; Coulson, 1998a; Coulson, 1998b) and health system functioning (Tendler and Freedheim, 1994; Succi and Lee, 1998; Ahern and Hendryx, 2003; Gilson, 2003a). Others prefer to employ concepts such as organisational culture (Davies, 2002; Scott et al. 2003; Scott et al. 2003) or organisational learning (Birleson, 1998) to emphasise that health systems are social systems. Some research from South Africa that focuses on the 'software' of health systems is summarised in Box 1.

These researchers have argued for new priorities in health sector reform that draw on the insights of their work. Thus, health sector reform that pays more attention to 'software' issues would include approaches that:

- deal with politics and process;
- recognise the importance of the informal;
- develop organisational networks and social capital;
- build trust, *within* the health system and *of* the health system;
- improve organisational culture;
- increase organisational learning;
- promote organisational norms and values.

This box briefly mentions some of the research from South Africa, conducted by the Centre for Health Policy as well as other researchers, that highlights the need for more socio-cultural understandings of health system functioning and reform.

At the macro level, Schneider et al (2001; 2002) have explored the impact of national political discourses on the implementation of HIV/AIDS programmes in South Africa. Projects on post-apartheid policy implementation have demonstrated the limitations of rationalistic, top-down implementation processes (Gilson et al. 1999; Gray et al. 2002).

Interviews with public sector nurses in Soweto on the implementation of free health care policies in South Africa (Walker and Gilson, 2002), has shown how the attitudes and performance of nurses are influenced by their histories, values, local organisational networks, supervision, workplace environments and shared discourses. Similarly, work with private sector general practitioners (GPs) (Schneider, 2003) has demonstrated that the economic orientation of GPs is also influenced by their social relations and contextual realities.

A project aimed at presenting the voices of senior and middle-managers throughout the country (Penn-Kekana et al. 2001) identified the importance of aspects such informal relationships, organisational culture, values, management styles, professional divisions and interactions with politicians in the functioning of the South African health service.

Lastly, a detailed study of two health authorities in the Western Cape (Froestad, 2002) provided a wealth of insights into the social realities of health sector organisations in South Africa. Some of the sociological dynamics highlighted in this research include professional divisions, the importance of management style and organisational culture, the relevance of organisational history, persistent tensions related to race and gender, and issues related to patronage and nepotism. An important finding of this study was how open communication, transparent management, as well as treating workers with respect and dignity was critical in building a functional and successful organisation

Box 1: Research on the 'software' of health systems and health sector reform in South Africa

Coordination within social systems is achieved by norms and values, and most of these researchers maintain that health sector reform requires more normative and value-laden approaches (Standing, 1997; Constandriopolous et al. 1998; Mackintosh, 2000; Chambers, 2000; Gregory, 2000; Atkinson, 2002; Gilson, 2003a; Gilson, 2003b). They suggest that issues such as equity, participation, gender and procedural justice have been neglected in the search for efficiency-orientated, technical and structural interventions.

An Integrated Perspective?

Drawing on organisational theory, we have presented three different ways of understanding organisations and human behaviour, and then traced their influence on current health reform initiatives. We have argued, perhaps rather stridently, that the human dimension of organisations - what he have labelled the socio-cultural perspective - is a fundamental and critical aspect of organisational life that needs to be taken much more seriously within health sector reform. However, each metaphor – mechanistic, economic as well as socio-cultural – has elements of truth and provides useful insights into organisational functioning. But, at the same time, each metaphor is also incomplete, biased and potentially misleading – a way of seeing but also a way of *not* seeing (Morgan, 1997).

For one thing, we have presented a rather simplistic and superficial introduction to the field of organisational studies, focusing only on three common perspectives. There is a rich and varied literature to be drawn on in trying to understand the organisational life of health systems. Returning briefly to Morgan's other metaphors (Table 1), we have said little about power dynamics and conflict though they are clearly an important aspect of organisational reality (Pettigrew, 1973; Clegg, 1979; Pfeffer, 1981). We have referred to organisational decision-making and rationality (March and Simon, 1958; March, 1978), but there are also the classic works on organisation learning (Bateson, 1972; Argyris and Schön, 1978), and the new terrain of knowledge management to be explored (Dierkes et al. 2001). Other theorists are less concerned with organisational rationality, pointing instead to the importance of rituals, routines, symbolism, emotion and meaning systems in organisations (Goffman, 1959; Mangham and Overington, 1987; Weick, 1995). Other new areas of interest such as organisational ecology (Trist, 1977; Hannan and Freeman, 1989) or complexity theory (Kiel, 1994; Stacey et al. 2000; Plsek and Greenhalgh, 2001; Sweeney and Griffiths, 2002) may also possibly provide useful tools for health systems research.

This abundance of metaphors and theoretical insights raises the question of whether they are equally valid and how the discrepancies and contradictions between different perspectives are to be resolved. Morgan was opposed to the idea of trying

to develop a grand unified theory of organisations and preferred the notion of multiple metaphorical lenses. Some organisational theorists have been frustrated by the state of fragmentation and contestation within the field and called for greater consensus (Pfeffer, 1993; McKinley, 1998), whereas others have noted the unresolvable differences between competing paradigms (Jackson and Carter, 1991), and a few have actually praised the diverse and open nature of the discourse (Burrell, 1999). However, different perspectives are not necessarily irreconcilable and there may well be areas of complementarity as well as divergence. There is certainly benefit in promoting more engagement between competing paradigms in organisational studies if only to improve understanding and avoid simplistic misrepresentations. More informed debate is clearly a prerequisite in the more ambitious project of clarifying the core problematics and searching for synthesis within the field of study (Reed, 1999; Westwood and Clegg, 2003).

We will continue this discussion a little by returning to our simple categorisation and asking whether the machine perspective, the economic perspective and the socio-cultural perspectives are mutually exclusive or complementary? In the previous sections we presented the three perspectives as fundamentally different ways of understanding organisations and human behaviour, concentrating on writings that emphasise the points of differences and opposition. In the rest of this section, we briefly mention initiatives that focus instead on identifying points of congruency and integration.

Many theorists have argued that real human behaviour is influenced by a combination of factors, individual and communal, economic and social, rather than simply one or the other. While criticising the ‘under-socialised’ approach of the economic perspective, Wrong (1961) and Granovetter (1985) have also cautioned against the tendency in sociology to present an ‘over-socialised’ conception of embeddedness where human behaviour is completely constrained by broader socio-political contextual influences or cleverly programmed by the internalisation of social norms. People are also conscious, responsive, reflexive, self-referential and emotional beings so that any model of human behaviour needs to leave significant space for individual agency and unpredictability (Giddens, 1984; Stacey et al. 2000). Granovetter’s classic paper actually proposes the integration of economic and

sociological approaches in understanding organisational behaviour, arguing that economic transactions are 'embedded' within social relations, or to put it slightly differently, that economic transactions are simply one form of social interaction.

A growing number of economists are attempting to develop more socially-aware methodologies and approaches. Neo-institutional economics, in accepting that societal institutions influence market transactions, is the beginnings of a more nuanced approach, though, as we have noted, has not moved particularly far from its neo-classical origins. Some neo-institutional economists, however, are interested in pushing the boundaries of the discourse. Wright *et al* (2001), for example, have attempted to extend the prediction ability of agency theory by relaxing some of its narrow assumptions about human behaviour. They suggest that:

> *"Agency issues may be very complex, and to examine them from a very restricted set of assumptions may provide not only an incomplete but also an inaccurate view of interpersonal relationships". (pg 417)*

However, Heyer *et al* (2002), in exploring economic approaches to cooperative group behaviour, argue that extensions to the individual maximising perspective result in decreased explanatory power, and suggest that it may be more useful to start with the assumption that humans are social actors.

We have also mentioned the work in experimental economics that is critically investigating the basic assumptions of the *Homo economicus* model of neo-classical economics. Bowles (2003), one of the authorities in this area, has argued:

> *"While the traffic across the disciplinary boundaries has in the last half of the century consisted primarily in the export of economic models to the other behavioural sciences, there is much to be imported if the role of power, norms, emotions, and adaptive behaviours in the economy are to be understood. Core economic phenomena such as the workings of competition, incentives and contracts cannot be understood without the insights of the other behavioural sciences." (pg 13)*

Evolutionary game theory is a related area of economics that is also exploring more complex assumptions about human behaviour (Douma and Schreuder, 2002). An example of research at the organisational level, is the work of Scheuer (2000), who, based on an analysis of workers' own interpretations of their actions, has argued that organisational actors operate on the basis of a complex and continuously shifting

balance between both rational individualistic choices and shared social-normative motives.

A second approach to the question of whether or not it is possible to integrate our three perspectives is to focus on the compatibility of different organisational forms and coordination mechanisms – a long-standing and well-established area of debate. Labelling each perspective by it's associated organisational structure and coordination mechanism (Table 2), our three alternatives become :

- hierarchy / authority;
- market / price; and
- social network / trust.

The initial parameters of this discussion were defined by Williamson (1975; 1981). He identified two basic organisational forms; the hierarchy relying on legitimate authority and the market relying on the price mechanism for coordination. Whether particular transactions are conducted in the hierarchy or the market depends solely on which form has the lower transaction costs. Therefore, for Williamson, the two organisational forms were discrete alternatives. He did recognise the existence of hybrid organisational forms but thought they were inefficient, and therefore, ultimately unsustainable. However, that prediction has not been borne out in practice - if anything, there has been a significant growth in market-hierarchy hybrids (Bradach and Eccles, 1989; Zenger and Hesterly, 1997).

Ouchi (1978; 1980) proposed that a third form of organisation be added to the typology, what he referred to as a 'clan', but is now more commonly referred to as the network form (Powell, 1990; Thompson et al. 1991). As we have seen, the network organisation relies on trust and values for coordination. In Ouchi's original formulation the three organisational forms - hierarchy, market and network - are also essentially separate variants. However, Adler (2002) has suggested that real organisations, as opposed to hypothetical ones, actually contain different mixtures of the three idealised organisational forms and coordination mechanisms. Similarly, Pedler (2001) has noted that:

> *"In the organisational world, networks are more likely to exist alongside, and to complement, hierarchies and markets, rather than appear in the pure version" (pg 5)*

Expanding on his approach, Adler has mapped a three-dimensional matrix of the different possible combinations of hierarchy / authority, market / price and network / trust and provided organisational examples of each variant (Figure 1). For example, he suggests that spot markets are a relatively pure market / price form, whereas relational contracts combine market / price with network / trust, and hybrid divisionalised organisations are combinations of market / price and hierarchy / authority. Similarly, traditional bureaucracy is the pure form of hierarchy / authority but Adler includes a high-trust variant of bureaucracy – enabling or participative bureaucracy – that combines elements of hierarchy / authority and network / trust. The most appropriate configuration of the different modes will depend the organisation's purpose and context.

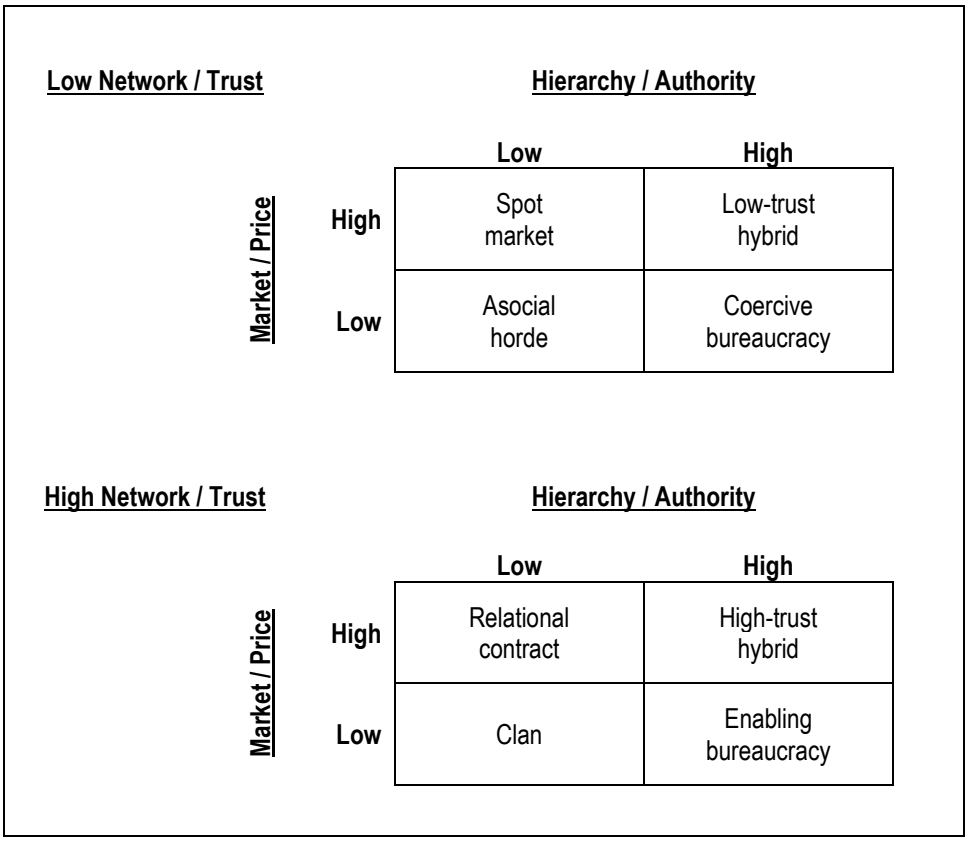

Figure 1: Typology of institutional forms

Drawn from (Adler, 2002)

We haven't resolved conclusively whether the three different perspectives on human behaviour and organisations are incompatible or complementary, though we have

suggested that plural forms may be more common than ideal types (Bradach and Eccles, 1989). Following Grandori (2001) we would propose that the problem with many of the contributions that we have discussed is that they rely on assumptions about human behaviour – either that people are selfish, opportunistic individualists or selfless, trusting communitarians – rather than treating organisational behaviour as an important area of enquiry and research. As Grandori summarises her approach:

> *"The integration between different perspectives that 'assume' different models of rationality will be performed here by treating these models as behaviours to be explained rather than assumed, and by specifying the conditions under which those models can be expected to be applicable or superior". (pg 12)*

What are the implications of this discussion for health systems research and health sector reform. We have suggested that current approaches neglect the socio-cultural perspective – the 'software' – of health service organisations, but we also have to be cautious of developing an 'over-socialised' conception of organisational behaviour. The human relations school has been criticised for, on the one hand arguing for a more socialised understanding of human behaviour, but then proposing rather reductionistic managerial practices to motivate staff or improve cooperation. Mackintosh and Gilson (2002) note:

> *"While there are many desirable networks of reciprocity in health care, they cannot be created by administrative fiat"*

Similarly Jafee (2001) states that:

> *"The same human capacities that thwarted the effort by scientific managers to reduce humans to machine objects also nullified the attempt to impose a moral imperative on organizational cooperation." (pg 77)*

This emphasises that tackling the 'software' of health sector reform is difficult and requires participative and developmental approaches rather than technical or structural solutions.

A key theme in health sector reform and new public management is to shift responsibility from the state to the private sector, to change from hierarchical modes of organisation to market mechanisms. Adler's (Adler, 2002) framework is helpful in highlighting a third dimension of organisational functioning – one that depends on trust and social networks. There is little evidence to indicate that current approaches

in new public management are necessarily correct, we would suggest that the development of high-trust bureaucracies might be more effective in improving health system performance than privatisation or corporatisation. Another implication of this typology is that organisational restructuring is not simply a techno-economic exercise but also a socio-cultural one.

HEALTH SYSTEM RELATIONSHIPS

Current perspectives seem to provide only simplistic and partial insights into the complicated social world of health systems. More complex, multi-disciplinary approaches are required to understanding the motivations of health workers and health managers and improve health system performance. Rather than relying on simplistic assumptions, this should be an important area of theoretical and empirical enquiry within health systems research. In this section we suggest that focusing on relationships in the health system may be one way of interrogating different assumptions and taking the debate further. The intention is to develop a framework for multi-disciplinary enquiry and not to produce a grand unified theory.

Current work on relationships is limited. Our initial framework simply focuses on categorising and characterising different types of relationships. An influential framework developed by Frenk (1994) defined the health system as a set of relationships among five major groups of actors: health care providers; the population; the state; resource generators; and other sectors. This outline is helpful but focuses more on the actors and functions than on different types of relationships.

More useful is a model provided by Newman (1998) which categorises public sector relationships into four key domains (Figure 2):

- Service relationships: frontline interactions between providers (health care workers) and users (patients);
- Organisational relationships: relationships within the health service – interactions between managers and workers, between colleagues, or between different categories of health workers;
- Inter-organisational relationships: relationships with external organisations such as suppliers, private sector providers and non-governmental organisations (NGOs); and
- Political relationships: broader relationships between the government and citizens.

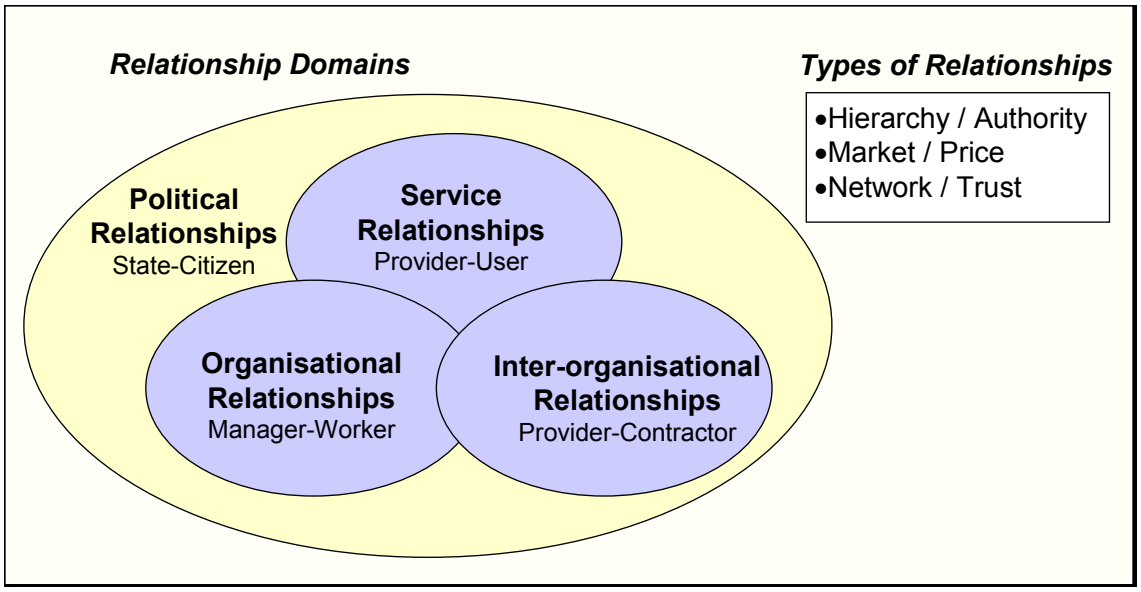

Figure 2: Relationship domains in the health system

Drawn from (Newman, 1998)

Overall public sector, or health service, performance is dependent on successful relationships in all of these areas. Importantly, the different domains are inter-connected. By way of example, a clinic nurse's interaction with her patient is influenced by internal organisational dynamics such as the mangement style of her supervisor, or her relationships with her colleagues, as well as the relationships that the clinic has with community NGOs or local private practitioners, and the patient's general trust in government institutions.

To this classification of relationship domains we could add a preliminary characterisation of the main types of organisational relationships based on the different organisational perspectives we have been discussing (Figure 2). Labels such as hierarchy, market, and network have generally been used to refer to the overall organisational structure. However, we propose that this level of analysis is too abstract, and that it may be more useful to think of specific relationships, rather than overall structures, in these terms. The overall pattern of relationships then produces the organisational structure, rather than structure determining the pattern of relationships (Kooiman, 1993). Following Adler's (2002) typology (Figure 1), we would suggest that relationships are also hybrid forms, made up of different

combinations of hierarchy, market and trust. However, other types of coordination mechanisms (Mintzberg, 1983; Grandori, 2001; Douma and Schreuder, 2002) may need to be added to this typology to adequately describe the range of relationship encountered in the health sector.

Each of the relationship domains has been the focus of different health sector reforms (Newman, 1998; Minogue, 2000). For example, the service relationship has become more consumerist in orientation, with an emphasis on quality of care, patients' choice, and payment for services. At the organisational level the focus is on decentralisation of responsibility, management training, improved human resources management, and new forms of control through performance management. The inter-organisational domain is a key area of health sector reform with privatisation, outsourcing, increased competition and new partnerships with private providers and NGOs. In the political sphere the concern has been about improving accountability to taxpayers and citizens as well as strengthening the legitimacy of public institutions (Peters, 1996).

In keeping with the dominant economic perspective, these reforms have tended to focus on the inter-organisational domain and promoted an increase in market-type relationships whereas intra-organisational interactions and the trust component of relationships have been relatively neglected. There has also been very little work on the linkages between health service relationships and broader state-citizen relationships. Mackintosh (2002) has observed that societal inequalities are often reproduced within the state, and Gilson (2002) has noted that health systems reflect the institutional values of society but also function as important institutions in the production of societal values.

There are a number of reasons why health system relationships are interesting and could provide a useful analytical framework for further enquiry:

- Firstly, relationships are an fundamental building block of health systems (Hurst, 1991). The notion that a system is defined by its components *and* their inter-relationships is well entrenched in systems theory (Stacey et al. 2000).

- Secondly, a relational perspective places greater emphasis on the inner workings of the health system, presenting the health system as a complex organisation rather than simply the macro-level of the health service.
- Thirdly, health system relationships are frequently the focus of health sector reform (Cassels, 1995; Sigmond, 1995; Collins and Green, 1999; Green et al. 2002). Relational concepts such as partnerships, contracts, regulation, decentralisation, and coordination now feature prominently in the terminology of health sector reform.
- Fourthly, relationships are important in the 'software' of health systems, both as outcomes of interest and as the mechanism by which the outcomes are achieved. So, a more trusting bureaucracy might be an objective of reform, but it cannot be created by structural reorganisation, it has to be developed over time through workplace interactions and relationships.
- Lastly, the notion of relationships is sufficiently flexible and polyvalent to examine different approaches and assumptions. Relationships are not only empowering and trusting, they can also be exploitative or distrustful (Lewicki et al. 1998), they are influenced by social relations, but also allow space for individual agency.

Our interest in relationships was stimulated by Coulson's (1998) relational approach to public sector restructuring. Similarly, Kooiman (2003) has provided a comprehensive description of governance that is based on the analysis of interactions. In arguing for this approach, he states:

> *''Day-to-day governing occurrences appear to be complex, layered interaction processes enacted between a variety of unpredictable actors with discrepant interests and ambitions. In the interaction processes all kinds of tension and conflicts are articulated, manifest or latent. Thus, in the interaction perspective the immense diversity, complexity and dynamics of social realty become visible and conceptual tools become available to deal with them" (pg 11)*

However, the available theory of relationships is actually extremely limited and simplistic (Lewicki et al. 1998). Eisenstadt (1989) concurs by noting that: *"the subject of interactions related to the conceptualisation of structure, culture and behaviour is a neglected area in social research".*

Although relationships feature prominently in the discourse of health sector reform there is very little literature dealing with relationships in any detail. Obvious exceptions are the work on contracting (Walsh, 1995; Bennett and Mills, 1998; Coulson, 1998; Palmer and Mills, 2000; Mills et al. 2001) and the application of agency theory in health systems (Dranove and White, 1987; Althaus, 1997; McPake et al. 2002). However, this type of enquiry needs to be extended to other types of relationships and incorporate other disciplinary perspectives. Reformers often refer to the development of partnerships, participation, cooperation, coordination or integration, but the differences between these different types of relationships are not completely clear. Also, we know very little about which factors to consider in the design of relationships nor what determines their success. These simple questions could provide a useful starting point for further enquiry.

CONCLUSIONS

Health systems are complex social systems. This seemingly obvious observation is curiously absent in much of the current discourse about health systems and health sector reform. Partly this reflects the biomedical and economic biases of the field but is also influenced by a conception of health systems that focuses on the rather abstract macro level rather than engaging with the complex inner-workings of the system, the everyday organisational reality of health workers and managers.

Because health systems are social systems, health system researchers and reformers need to pay much more attention to social theory. Natural science methods of enquiry are inadequate and inappropriate for understanding social systems, a fact that was established in social studies many decades ago. We have attempted to demonstrate that even a superficial reading of traditional organisational and institutional theory provides useful insights for health system reform. Health system researchers need to be much more active in using, and contributing to, the substantive body of work in the social sciences.

We have contrasted the Taylorist and economistic approaches of current health reform initiatives with the more socio-cultural perspective that prevails in organisational studies. Significant resources and energy have been directed at fixing the 'hardware' of the system, while the 'software' – the organisational culture, the social networks, the values – has been largely ignored. We suggest that this imbalance has contributed to the failure of recent initiatives to significantly improve health system performance. It is necessary, not only to pay more attention to the socio-cultural dimension of health systems, but also to ensure that existing interventions do not undermine the development of more humanistic approaches.

Our understanding of the complex social world of health systems is limited and fragmented. Current perspectives rely on simplistic assumptions about human behaviour but we lack the methodological tools to develop more complex insights. Multi-disciplinary approaches would seem to be important but it is difficult to move beyond our entrenched ways of seeing the world. We have briefly explored some

possible points of integration and suggested that the enquiry might be taken forward by trying to develop more complex understandings of health system relationships.

Health sector reform that seriously addressed the 'software' of health systems would differ significantly, in both content and process, from current initiatives. It would focus on priorities such as developing shared goals, promoting organisational values, creating supportive work environments, influencing informal social networks, building trust, and improving organisational learning. These initiative will probably require new types of bureaucratic organisation and depend on more participative and transformative approaches to management and leadership.

Practical health system researchers and reformers may be sceptical that such an approach is too complex or too normative, though the current initiatives in health sector reform and new public management are no less ambitious or value-laden. It is true that addressing the 'software' of health systems is difficult but that should be the stimulus for new research and new approaches rather than an argument for reverting to the simplistic, but ineffective, formulations of the past.

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