Control modes in care delivery organisations

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Abstract. Three different, overlapping management and control systems co-exist in healthcare delivery organisations: in order of their legibility, they are a Weberian bureaucracy (the formal hospital organization); a feudal system (the medical staff); and an informal, peer-based network of senior nurses roughly analogous to networks of non-commissioned officers in the military. The co-existence of these three modes of control leads to areas of conflict, confusion, and cooperation. The paper discusses the benefits and problems associated with this complexity and draws on insights from the engineering of polycentric control architectures involving heterogeneous agents to suggest ways to beneficially influence such organisations.

Keywords. Health care, organisations, polycentric control.

1. Introduction

Health care delivery is one of the most complex enterprises in modern societies; it dwarfs most other industries in both size and heterogeneity. This complexity is exacerbated by the fact care delivery organizations are not static entities, but are continuously being re-enacted based on clinical problems and context. Over 40 years ago, Strauss (1963) characterized the hospital as "a geographic site where persons drawn from different professions come together to carry out their respective purposes" and described a complex order of reciprocal, unstated (dis)agreements among a heterogeneous group of actors that undergoes continual renegotiation – renewal, revision, or rejection – as the daily work of care proceeds (Degeling & Maxwell, 2004). Although all the parties express support for the same high level goal – to return patients to the outside world in better condition – this shared value masks considerable disagreement about *how* it should be addressed, *what* sorts of activities are important, *who* should do them, *when they should occur*, and *where*. Consequently, the design and management of care delivery organisations is complex and challenging.

This paper characterises 3 overlapping and simultaneous management and control systems in care delivery organisations, and focuses on the advantages and disadvantages they bear, based on informal ethnographic observations across a variety of care delivery organisations.

1.1 Three Control Modes in Care Delivery Organisations

In this section we describe the three simultaneously active forms of organization and control that characterize care delivery organisations; these control modes overlap in both time and in span of control.

1.2 Weberian bureaucracy

Hospitals are formally organised as classical, hierarchical command and control bureaucracies (Weber, 1947). This system is characterized by centralized control; division of labour with clear boundaries between units; clear, formalized communication and reporting channels; and well-defined hierarchical command and control systems. This is the organizational basis for virtually all hospital management and support staff, and some professional clinical staff (such as nurses and pharmacists). It is primarily a vertical mode of organization, where superiors exercise authority based on a presumption of greater knowledge and experience that encompasses that of their subordinates (Nelsen, 1997).

1.3 Feudal system

Physicians (even if they are formally hospital employees) are notably absent from the Weberian system. The medical staff has a separate, parallel organization based on a feudal model. This is a highly distributed system with relatively weak central control (in the form of a chief of staff, or in academic centres, a dean); most power devolves to local 'baronies' run by department and service chiefs. In this model, physicians are bound by ties of professional loyalty to their local 'baron', who exerts comparatively strong control, and only weak ties to the centre, absent some external threat. These baronies divide largely along specialty and subspecialty lines; thus for many physicians, the larger hospital is a distant abstraction, while their world of work and their personal and professional interactions are narrowly focused in their own specialties. This is a mixed mode of organizing, both horizontal (see following section) and vertical, strikingly reminiscent of a medieval guild system. Within a 'barony', the presumption of greater expertise holds and supports a degree of hierarchical control; between baronies, the assumption of rough equality based upon distributed expertise (*eg*, the cardiologist knows as much about the heart as the pediatrician does about children) prevents rigid hierarchical control from being accepted.

1.4 NCO system

Despite the nominal comprehensiveness of the two modes of organization just discussed, there exists another, more underground, less formal, highly distributed system based on strong personal ties, long past experience, and deep trust that ignores the boundaries imposed by both the hierarchical or feudal systems (Wears, Perry, McDonald, & Eisenberg, 2008). This is analogous to networks of senior non-commissioned officers in the military, and is a common organisational model for senior nurses; although these nurses are normatively subject to the Weberian bureaucratic system, the *sub rosa* NCO system is often more influential among them, and also among less senior nurses. This is a horizontal mode of organizing based on communities of practice. Within a community, actors possess roughly equivalent technical abilities; this equality renders coordination by command inappropriate so actors collaborate via discussion, persuasion, and negotiation (Nelsen, 1997).

2. Conflict, Confusion, Cooperation

These overlapping methods of organizing can be considered a heterarchy – a tangle of partly competing, partly cooperating, partly ignoring subsystems with each component having a dynamic multiplicity of relations with the others (Crumley, 1995; Heylighen, Cilliers, & Gershenson, 2007).

2.1 Disadvantages

The potential for confusion, working at cross purposes, and misunderstandings in this system seem obvious. For example, leaders in the bureaucratic world are frustrated by the seeming inability or unwillingness of physician leaders to commit to courses of action on behalf of their apparent subordinates, and may interpret this as a form of dissembling. Conversely, physician leaders may bristle at what they perceive as unrealistic expectations for mechanistic, as opposed to negotiated, control (Schulman, 1993).

An additional difficulty is that while physicians tend to roundly reject bureaucratic notions of control, they have difficulty in articulating or even envisioning any other methods. A common theme in the medical literature especially with respect to issues of quality or safety, is the notion that healthcare is a non-system, and that it is "unstable, confused, and desperately in need of a central nervous system" (Ellwood, 1988).

The *sub rosa* NCO system tends to view both the alternatives as hopelessly confused and ineffectual, and so works via informal 'work-arounds' to support over-arching goals, while carefully trying not to draw attention to itself.

2.2 Advantages

The advantages of heterarchical, distributed, heterogeneous control may seem less apparent, but are nonetheless operative. Since no single group or coalition of groups has the ability to control large portions of the organization effectively, both tactical and strategic decisions necessarily must involve substantive discussion, negotiation, and re-negotiation among a heterogeneous group of interested parties. Schulman has noted that too much clarity in organizational authority runs the risk of committing grand, authoritative mistakes (Schulman, 1993). Particularly in dynamic decision situations – conditions where the nature of the problem changes, both independently over time and dependently based on previous actions – if there are feedback delays between actions and results, highly centralized control can increase rather than decrease instabilities.

Finally, we have observed a setting in which physicians are purposefully developing boundaryless, peer-based networks of control, analogous to the nurses' NCO network. These similar organizational structures are in part in an attempt to compensate for the dysfunctionalities and lack of flexibility of the nominal control systems. These networks are highly collegial, make decisions by negotiation towards consensus rather than by vote (or other instrumentalities of power such as unilateral decrees), and have specifically avoided official organization imprimatur (*ie*, are not designated formally as committees of the hospital or of the medical staff). They have begun to show effectiveness in improving cross-boundary issues such as patient flow in settings where their development has been encouraged, either explicitly or tacitly.

3. Discussion

The thinking about organizing in healthcare organisations seems remarkably impoverished – centralized command and control is the commonly the only articulated mode of organization (even by physicians), and alternatives are not imagined or articulated (although centralized control may be inchoately opposed). As the industrialization of the

health care continues, one might expect the emphasis on centralized control to increase, as it did in the industrialization of manufacturing. Such a development risks ignoring or losing the tacit wisdom held in communities of practice based on work at the sharp end of care, to the detriment of all concerned. A more detailed, better articulated analysis of potential modes of control might allow care delivery organisations to evolve more functional methods of distributed control that could eliminate some dysfunctionalities of the current system without inevitably replacing them with the dysfunctionalities of a bureaucracy.

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