

Planning to innovate. Designing change or caught up in a game?

Abstract

In this article the author engages with some orthodox theories of the management of innovation and change, which take for granted the idea that they can be predicted and controlled. Organisations are thought to be systems with boundaries which managers acting as engineers, or doctors, can 'diagnose' and restore to 'health' or order differently. As an alternative, and by drawing on an experience of working with health service managers, the author argues instead that change and innovation arise as a result of the interweaving of everyone's intentions. Organisations are sites of intense political interaction and contestation, and exactly what emerges is unpredictable, and unplannable, even by the most powerful individuals and groups.

Key words: complexity sciences, systems theory, change, innovation, game analogies

Introduction

To what extent can we plan to innovate? There is a widespread assumption in dominant theories of management that managers can plan innovation and change organisations in predictable ways to produce new ways of working. They can create an environment where change is likely to happen. This article will question the idea that it is possible to plan to be surprised, and will argue instead that novelty arises in the intense political engagement of everyone caught up in a particular change or innovation initiative, but what results is not change that is necessarily planned, or even change that we particularly want. In doing so, I will offer a critique of the conventional way of thinking about organisations and will challenge the notion that change can ever be wholesale, controlled and predictable or that it will necessarily arise just as a consequence of managerial intentions.

When staff in organisations talk about innovation, or the need for change they often reach for metaphors informed by bodies of ideas derived from engineering or medical science. They understand organisations to be systems, or wholes, which have boundaries and can be disaggregated into parts, and which tends towards equilibrium. These parts-and-whole ideas seem to be common sense, particularly in an organisation like the NHS, in which the overwhelming majority of staff have been trained in disciplines informed by the natural sciences, where systems theories have proved such a helpful way of understanding natural phenomena. The idea that organisations are systems is widely taken up in the NHS. For example, Iles and Sutherland (2001)¹ were commissioned by the NHS to produce a review of theories of change to aid NHS managers choose among them. They are explicit about the prevalence of systems thinking in NHS management: "Within the NHS the term whole systems thinking is now routinely used by managers and clinicians" (Iles and Sutherland, 2001, p. 17).

By thinking of organisations in this way, managers are expected one way or another to intervene to realign parts and whole to make the organisation function more effectively, perhaps setting a new equilibrium state. The manager is understood as either an engineer or a doctor trying to bring about whole system change and is drawing on ideas from engineering or biology. For example, the idea of 'business process engineering' (Harmon, 2005)² or 'lean six sigma' (George et al., 2007)³ explicitly conceive of the organisation as a machine which needs engineering, or reengineering towards some new state of functioning. Originating in statistical methods developed in manufacturing at Motorola, six sigma has now emerged as one possible means of bringing about improvement in health services of late (Antony et al, 2007; Proudlove et al., 2008)^{4,5}. The idea of setting targets for performance for organisations in all sectors of the economy is also based on the idea that an organisation is a cybernetic system (Wiener, 1948)⁶. In other words, the organisation is considered to be a goal-seeking system which depends upon scanning the environment and seeking feedback in order better

to fix on its goal. Wiener was one of the first scholars to popularise the transfer of ideas from the study of mechanisms like anti-aircraft guns to social organisations.

From the perspective of a broad body of literature which calls itself organisational development (OD), and popularised by writers like Peter Senge (1990, Senge et al., 2005)^{7,8}, organisations can be thought of as self-regulating systems, as we might conceive the human body to be, which again tend towards an equilibrium state. There are times when the self-regulating system is thought to be out of balance with its environment, or out of balance with itself, and needs setting towards a different equilibrium. When this happens the manager, or consultant, has to 'diagnose' what is wrong and then intervenes to set the system running towards a new equilibrium. The OD consultant, or manager emerging from a management course armed with OD tools and frameworks, has an idea of how an organisation should be working ideally, and tries to change the organisation in ways which conform to this ideal. In terms of innovation, senior managers and leaders are thought to be able to set the conditions, to order the organisational 'culture', so that innovation is more likely to occur. In both engineering and biological metaphors of organisations managers and consultants are construed as objective scientists who scan for 'facts', analyse the conditions they find, diagnose a remedy or make an adjustment or a realignment, in order for the organisation to return to smooth functioning or 'health'.

What is interesting about both types of systems theories, organisations as machines to be re-engineered, or organisations as self-regulating systems to be re-regulated is just how unsuccessful they are as concepts in bringing about the changes they predict. There is broad consensus about this lack of success from both supporters and sceptics of conventional theories of management. From the supporters' perspective, systemic ways of understanding are unsuccessful because they are often not conceived or followed through sufficiently (Pfeffer and Sutton, 2006)⁹. From a similar perspective, and also informed by natural science thinking, it is argued that management prescriptions are not sufficiently 'evidence-based' (Rousseau, 2006)¹⁰. If they were, they would undoubtedly work better, comes the argument. From a substantial minority of critical management scholars there is not, nor is there ever likely to be a stable body of knowledge that we can think of as management science (Stacey, 2010; Khurana, 2007)^{11,12}, so there are few grounds for thinking that the conventional application of systemic forms of management are likely to succeed.

What does seem clear is that whatever explanations managers adduce for doing what they are doing, they tend act mostly unreflectively, and often without a clear grasp of the systemic ideas they are using. In many organisational contexts, understanding organisations as if they were 'systems' is simply taken for granted.

Research has identified that, even in NHS organisations with a strong track record of improvement, there is typically little reflection, hypothesising or consideration of alternative actions before embarking on change processes. Rather, teams decide on a specific course of action and jump straight in to making changes (Bate et al., 2005, p. 45)¹³.

From this account of change in an NHS setting, which resonates with accounts of organisational change elsewhere, managers often have an imperfect grasp of imperfect theories of management, and often just muddle through – they just 'jump straight in' and start making changes without thinking about the theories they are using implicitly.

In this article it is my contention that highly abstract, technical and idealised descriptions of organisations as systems cover over the intensely political engagement that any change or innovation programme is likely to provoke. They give an inadequate account of the change which occurs in organisations which does so precisely as a result of managers acting with intention, which

then provokes counter intentions from those they manage, which in turn provokes the managers to further strategising and efforts to control the outcome, ad infinitum. What ultimately occurs is an amalgam of everyone's intentions which no one has planned, and of which no one is in overall control. The outcomes are likely to be a mixture of the expected, the unexpected and the unwanted: novelty arises purely out of the patterning and repatterning of action and reaction between people, but it is not novelty which can be predicted by any group of managers in advance. Sometimes it results in change that nobody wants. An alternative understanding of how change occurs in organisations, which I will set out below, profoundly challenges the idea that innovation in organisations is a phenomenon directed or controlled by leaders and managers, no matter how senior.

I will explore my own experience of this occurring in the NHS in the UK in what follows, and set out some theories of how we might understand social change differently thereafter.

Change in the NHS

I worked for a number of years as a consultant with some health service managers first as a contributor to a review of their service (Mowles, et al, 2010)¹⁴, and latterly to help them reflect as a team of managers on what they have to deal with in often turbulent times. On this particular occasion we have been discussing the wave upon wave of initiatives which are triggered almost on a daily basis by senior managers, local and national politicians. Some of these seem to respond to what this particular service needs and follow coherently from the last initiative, others appear whimsical, unintelligent or wild. This leads to rounds of review, organisation and re-organisations so things never stand still. Services expand and contract according to the interests and ideologies of the politician or senior manager who is provoking the change, and sometimes one set of changes provokes distortions of the service which require additional adjustments and changes.

So in order to protect aspects of the service which they deem to be valuable, this group of managers I have been working with try understand and engage with each initiative, and as they do so find they are involved politically, and may even begin to subvert what they are tasked with implementing. The alternative to doing this is to stand by and watch as changes planned sometimes at a remote distance impact directly on services they know intimately. They become involved in discussions about how this or that particular service 'improvement' might be carried out in practice, and whether they think it is an improvement, and as they do so they begin to steer it this way and that, according to their influence with their managers. Their ability to influence their immediate manager will depend a lot on the quality of the relationship they have with their manager and how their manager manages them. In cases where managers are extremely controlling tactics might take the form of defiance or perhaps even lying. With more open, democratic managers there is usually greater possibility of negotiation, of hybrid outcomes which can keep the spirit of what is intended at the same time respecting the integrity of what already exists.

As a group of managers they discuss together what might be best to try and achieve, but these discussions are often hidden from the more public fora in which the explicit struggle is taking place. Equally, those provoking the initiative are themselves engaged in formal and informal discussions between themselves about what they really intend, what they are prepared to say publically about what they intend, and how they will dress these ideas up for more public consumption. Sometimes what they intend only becomes fully clear to them as they begin to engage with the resistance their suggestions might provoke – the further they are from front line services, the less likely they are fully to understand the day to day implications of what they are recommending.

What any group of managers brings to the service that they manage is a contextualised and detailed understanding of what they are responsible for, which will have arisen out of their experience. They

will usually understand their domain of service much better than the managers who manage them: what they might lack, however, is an understanding of the broader, more abstract thinking that is behind the wider organisational initiative. So by negotiating with peer managers about what would be best to try and preserve as well as change in their particular area of operation at the same time as negotiating with more senior managers about the broader implications of what is being proposed, managers are trying to make wider organisational generalisations, abstract propositions, more particular. And in doing, in bringing to bear what they understand to be the realities on the ground, they can make the difference between a poor or a better implemented initiative. In turn their group of peers will exercise a discipline on the discussion about what they might and might not strive for with their managers. Together they try to work out how to engage, and the quality of this discussion will be critical for informing how managers then engage further with the broader political process of change.

What we are actually doing together, then, as part of my support to the group, is to try and understand better this process of political engagement and negotiation. How are they influencing and being influenced? The managers do not have the power to refuse the proposed changes, but what are their powers, and how are they negotiating with each other, and with their line managers? How does this form of reflection help them think about their next steps?

What actually transpires will be an interweaving of all these different intentions, the intentions and actions of the managers I am working with as well as those of the more powerful who will have a greater effect on the outcome, but even they are unable to control the course of things. Equally, there will be unintended consequences, both unwanted and unexpected, for which no single group will be responsible. There are open pronouncements, what the political theorist James C Scott (1990)¹⁵ called public transcripts about what is happening alongside multiple 'hidden transcripts' which the public and the broad mass of staff never get to hear. It is an intensely political process of stratagem and counter-stratagem as participants in the struggle negotiate over what they want and what they choose to value. Those lower down the hierarchy have less ability to influence, but their power is not zero.

Not systems but complex patterning

I made the case earlier in this article that understanding organisations as systems is taken up widely in mainstream management literature, and particularly in the NHS in the UK. How might one think about organisations differently if a systemic understanding is limited?

The sociologist Norbert Elias was interested in social flux and change and was exercised by the way that analogies from the natural sciences were taken up to describe the social as though they were equally relevant and applicable there. Ralph Stacey and his colleagues, whom I quoted earlier, have taken up Elias extensively in their work which understands organising from the perspective of the complexity sciences (Stacey et al., 2000; Stacey and Griffin, 2005)^{16,17}. The problem with natural science analogies, Elias argued, is that they too readily reduce the dynamic and fluctuating relationships between people to descriptions of things at rest, or transitioning between one fixed state and another. For him this is because the natural sciences are aimed at describing immutable truths about nature, and that theories about immutabilities have become privileged over theories which try to explain things in motion. In thinking about the interweaving of intentions between people, he cautions, we should be aware of what he termed 'process reduction'.

According to Elias, most significant social change is unplanned and unforeseen, and is the result of a web of interdependent actions informed by past actions. Arguing against the idea that change comes about through intentionality of individual actors or groups of actors alone, in his major work the *Civilising Process* (1939/2000)¹⁸ he demonstrates how we are bound together in complex webs

of interdependency, an essential characteristic of which are unstable relationships of power. Given the large number of people involved in complicated social processes such as running an NHS hospital, and the degree of complexity that arises as a consequence of their many and conflicting intentions, it comes as no surprise that our actions will bring about things we intend as well as things we would like to prevent:

As the moves of interdependent players intertwine, no single player nor any group of players acting alone can determine the course of the game no matter how powerful they may be. . . .It involves a partly self-regulating change in a partly self-organising and self-reproducing figuration of interdependent people, whole processes tending in a certain direction (1991, p. 146/147).¹⁹

A 'figuration', the word that Elias coined to represent the web of fluctuating power relationships between people, has probabilistic tendencies, but exactly what turns out of the process of interrelating people is unpredictable. Indeed, Elias is open to the fact that we might get completely the opposite of what we intend:

It is perfectly possible that by their own actions, groups of people consciously oriented towards preserving and maintaining their current figuration in fact strengthen their tendency to change. It is equally possible for groups of people consciously oriented towards change just to strengthen the tendency of their figuration to remain as it is. (1978: 147)²⁰

Norbert Elias was concerned to find systematic and rigorous methods which more adequately described social phenomena of which we are part: the idea of society as a system with a boundary was not convincing to him. Instead he drew on game theories as an explanation of how complexity and unpredictability arises in society. Take for example, a tennis game between one strong player in competition against a weaker opponent: the stronger player can easily dictate the course of the game, he argued. If the two players are evenly matched it becomes much less clear who will dominate, and each player has to constantly adapt to the moves and tactics of the other player. They are both constrained and enabled by each other. Taking the analogy even further with Elias' prompting, we might conceive of organisations, or even whole societies, as multi-tiered games comprising multiple players, which makes them highly complex, with groups of players forming into temporary alliances or otherwise identifying with each other for mutual advantage, both within their tier, and between tiers. The game becomes highly complex and opaque to each of the players playing the game, as well as to groups and alliances of players as they struggle to co-operate and compete. It is entirely unpredictable how one move will affect the moves of everyone else and what the unintended consequences will be.

Returning to the narrative that I described above, one can imagine groups of senior managers co-operating and competing with each other as they press both for personal and professional advantage at the same time as trying to advance the health service of which they are in charge. Equally, the tier of middle managers with whom I was working, were similarly co-operating and competing with each other, and with the upper tier of managers both at the same time. Each manager additionally has a separate set of relations with direct team reports for whom they are responsible. The number of potential outcomes for this degree of complexity arising from the fluctuating power relationships between many people is too many to calculate, and is certainly not reducible to the idea that one cause, a senior management team's plans for change, will have one effect.

Elias was ahead of his time in many respects, and his ideas describing the ways that we are caught up in continuous but interrelated changes brought about by the constant mutual adaptation of large numbers of interdependent people produces similar insights to those arising from more recent agent-based computer modelling of complex adaptive systems (Allen, 1998; Hedström; 2005)^{21,22}. Hedström, for example, a sociologist at Oxford University who models complex social phenomena such as changing patterns of unemployment, reaches similar conclusions to Elias: complex patterns emerging from interacting agents are not reducible to simple cause and effect, nor does it help to extrapolate from what individual agents are doing, or from a process at rest. Rather than being linear and predictable, he concludes that the relationship between the individual and the social, the individual agent and multiple agents, is 'complex and precarious' where 'large scale social phenomena that are observed may simply be due to an uncommon combination of common events and circumstances' (Ibid.: 100).

Conclusions

This article has compared and contrasted some more orthodox and ubiquitous ideas about change and innovation in organisations. In the health sector in particular there are a variety of reasons for managers to think about what they are doing in systemic terms, to understand their organisations as systems with boundaries, given that systems thinking has been so successful in the natural sciences.

As an alternative I have set out an argument that understands change and innovation as a highly complex and political process of which no one, and no single group, is in overall control. Managers act with intention towards the staff for whom they are responsible and usually for the good, to bring about change and the improvement of services. However, because they are acting into a complex web of other people's intentions there is no guarantee that what they intend will transpire, or even that the outcome will be an improvement on what has gone before.

Instead of thinking about organisations as systems with boundaries into which managers act as detached observers, I have suggested an alternative, drawing on the ideas of Norbert Elias and some insights from complex adaptive systems theory. I have suggested instead that organisations are more helpfully understood as complex games, where players are constantly adapting their tactics and strategies in response to the strategies and tactics of others. More powerful players are able better to influence the outcome, but this is not the same as saying that they can dictate the whole course of the game. My conclusion is that change and innovation often arises despite or in opposition to change programmes and not always because of them, and the idea that we can plan to produce novelty is deeply problematic. This is not an argument against change, nor am I arguing that there is no point in managers forming plans and acting according to their best judgements. What I am saying, however, is that despite their best intentions that cannot control the outcome of complex change initiatives, nor can they predict that novelty and innovation will emerge in the way that they think it will. This implies a much greater acknowledgement and anticipation of uncertainty and unpredictability on the part of NHS managers. It also implies that the job of managers is not simply to conceive of a plan and attempt to implement it irrespective of what they encounter in the course of implementation: it is too reductive to understand resistance as merely a truculent resistance to change and 'reform'. General plans for change, conceived at a distance, have to be contextualised locally and will always involve negotiation and compromise. I am recommending that game analogies are much more helpful for managers planning, implementing or being impacted by change initiatives, and am encouraging them to spend more time discussing and reflecting upon how they are caught up in the particular game they are currently obliged to play with others.

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