

Perspectives on context

Context is everything

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Contents

Context is everything	3
Introduction	3
1. Defining ‘context’	5
2. Key themes and focuses of concern in the literature	8
3. Models, taxonomies and frameworks for context	12
4. Key questions for research	20
References	27

Context is everything

Introduction

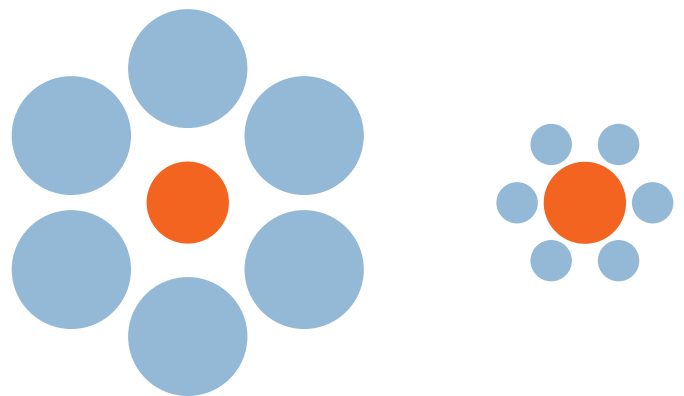
‘Social scientists of the most varying standpoints agree that human action can be rendered meaningful only by relating it to the contexts in which it takes place. The meaning and consequences of a behaviour pattern will vary with the contexts in which it occurs. This is commonly recognized in the saying that there is a “time and a place for everything”.’ Alvin Gouldner, 1955¹

In everyday talk we often hear people talking about the importance of not taking something out of context. This is wise advice. Nothing exists, and therefore can be understood, in isolation from its context, for it is context that gives meaning to what we think and do. As Gouldner¹ said, ‘context is everything’. Examples abound:

- **Man in the street:** ‘Yelling “move!” is rude in one context, like if it’s your little brother standing in front of the TV, but it’s entirely appropriate at a fire scene when a wall is coming down. Most actions would be judged appropriate in some contexts but wrong in other contexts. For example, cops carry guns when they walk into banks, and no one thinks anything of it [An example of US context differing from the UK one!]. But if you or I walked into a bank wearing a gun, people would be alarmed. I always chuckle at the bizarre things you get to do as a fireman, because of the context. I get to rip people’s clothes off, electrocute them, and cut their cars apart with hydraulic tools.’ (US fireman)

- **The cognitive psychologist:** In the Ebbinghaus illusion (Figure 1), the orange dots appear to be different but are in fact exactly the same size. The perceptual size of each dot changes because of what is around it.

Figure 1: The Ebbinghaus illusion



Croskerry² goes further to suggest that by ignoring context we are not just being unwise but downright stupid:

‘In the National Post in 2008, columnist John Moore related details of a murder: “a man fatally shot his wife in the chest and got away with it”. Our reaction is an immediate sense of outrage at the ills of modern society. This is yet another example of wanton domestic violence and of a judicial system that has failed, once again, to bring the perpetrator of a horrifying crime to task – “bleeding heart liberal judges and their hugs for thugs”. We later learn that the accused was an elderly man diagnosed with a terminal illness, married for many years to a woman who had developed Alzheimer’s disease. He was fearful she would suffer unduly without his care. Knowing, too, that his own death was imminent,

*he chose to end her life. He was never charged with the murder and was released home to await his own death, at least content in the knowledge that his wife would not endure prolonged neglect and suffering. The context, says Moore, removes our outrage; we now understand both the husband's and the judge's decisions. After learning this, we might then wonder, on reflection, "How could I have been so stupid to have made the first judgement?"*² (p171)

And whenever we are perplexed that things don't work out as anticipated or planned, or we have a reversal of causal direction in which cause becomes effect and effect becomes cause, invariably it is 'context' that is the invisible rogue variable:

*'Imagine conducting a research study in which you expect variable x to cause variable y but instead discover that y causes x. Imagine doing a study in which you anticipate a strong positive relationship between two variables but instead find a strong negative relationship. Imagine conducting an investigation in which the base rate of some crucial organizational behaviour varies by a ratio of 35:1 between subsamples. Surprises of this nature should surely capture our attention, and they are frequently a product of our failure to consider contextual influence when doing research.'*³

Given all this, one wonders why so much healthcare research and practice is 'acontextual', having turned its back some time ago on the wider surround, or worse still, come to regard it as an unwelcome noise or interference in what one was trying to get on with 'on the ground'. In the world of evidence-based medicine, all too often context has been relegated to the lowly status of a constant or assumed to be 'controlled for' (a euphemism for disregarded) in some way. In the context (sic) of the above, one must conclude that such myopia is not only unwise but stupid – though hardly surprising. Several courageous people in the bio-medical sciences have freely admitted to being perplexed by the notion of context and the wider quality improvement (QI) intervention to which it belongs, the underlying reason seemingly being that QI and clinical interventions are miles apart in terms of epistemological focus. Stephen Goodman explains:

'It is very difficult to penetrate the bio-medical model when you bring the notion of a "treatment

*in social change" into it. At some level, they don't understand what you're talking about, because we think of the treatment as the imaging, as the drug, the device, as the actual intervention. And everything around that is simply, sort of, window dressing – you know "context" and all that. I think that's what interferes with the understanding of what a quality and safety intervention is, because it doesn't have the same trappings as the other bio-medical intervention.'*⁴

On closer examination, we see that the problem goes much wider than healthcare and medicine. What we find is that context, in whatever field we are talking about, including organisation studies,⁵ has not been formally studied in any extensive or intensive way, and in not a single case have I been able to find any explicit or well articulated 'theory of context'. As mentioned above, almost universally, we find context to be an overworked word in everyday dialogue but a massively understudied and misunderstood concept. Teun van Dijk comments:

*'It is not surprising... that there are thousands of books that feature the concept of "context" in their titles. Despite this vast amount of "contextual" studies, however, **there is not a single monograph that provides an explicit theory of context...** This means that the notion is commonly used in a more or less informal way, namely to refer to the explanatory situation or environment of some phenomenon, that is, its conditions and consequences.'*⁶

And the same author in another publication:

*'...the notion of context as it is used in the social sciences is not a strictly theoretical concept, but rather a more or less fuzzy notion denoting a situational, historical, geographical, social or cultural environment of a phenomenon being studied.'*⁷

In the same vein – this time on the context of psychology – David Funder remarks:

*'... for all the arguments that the situation is all important..., little is empirically known or even theorized about how situations influence behaviour, or what the basic kinds of situations are (or, alternatively, what variables are useful in comparing one situation with another).'*⁸ (p211)

Healthcare research, I shall argue along with van Dijk, Funder and others, urgently needs both a theory of context, and more extensive operationalisation, such that it becomes routinely exposed to all the rigours of conscious thought and challenge, as well as the acid test of practice. Certainly – recalling Stephen Goodman’s words above – it deserves to be more than window dressing.

Berwick eloquently sums up the case ‘for’ in the Foreword to our 2008 book.⁹ He writes:

‘... neither these researchers [authors] nor their subjects in the complex world of organisational change and improvement can hope to escape “the hazards and uncertainties lying in wait in the punishing contextual terrain that has to be crossed”... I will long remember that phrase – the “punishing contextual terrain” – since it so clearly labels the facts-on-the-ground for the ambitious, even courageous, clinicians, managers, executives, and others in healthcare who seek to make care far better. They have discovered that almost nothing about effective action is “installable” without constant, recursive adjustments to ever-changing local context. Researchers who wish to understand how improvement works, and why and when it fails, will never succeed if they regard context as experimental noise and the control of context as a useful design principle.’ (vii-viii) [my emphasis].

(I couldn’t have put it better myself!)

Although it is too early to say with any certainty, there are one or two promising signs of healthcare research and practice having finally woken up to the importance of context in QI processes and outcomes. For example, summing up their own empirical research into cultural context, Krein et al write:

‘Supporting the emphasis on the importance of context in healthcare settings and implementation research (Benn et al, 2009; Rycroft-Malone et al, 2009; Rousseau and Fried, 2001), our findings highlight the potential impact and the need to measure – or at least consider – organizational context as a source of heterogeneity when evaluating and implementing quality improvement efforts across organizations.’¹⁰ (p1699)

They also cite one or two examples of recent studies that have included a specific focus on changing aspects of organisational context in order to facilitate practice change, especially – like their own research – cultural context.^{11,12} It remains to be seen whether these are a one-off or part of a bigger trend towards more context-sensitive healthcare QI research, remembering the old adage that two swallows do not a summer make.

To recap: the questions the Health Foundation asked me to address in this brief overview are:

1. What do you define as context?
2. What do you know about context from the literature? We are looking for an accessible summary of your views of the literature, rather than a full review.
3. What models or frameworks do you use to help explain context?
4. What do you see as the principle research questions relating to context?

1. Defining ‘context’

1.1 Some stock definitions

Most people agree that context is a slippery notion that needs to be pinned down in some kind of operational definition. Here are some examples:

‘... the surroundings associated with phenomena which help to illuminate that [sic] phenomena, typically factors associated with units of analysis above those expressly under investigation.’⁵ (p56)

‘... stimuli and phenomena that surround and thus exist in the environment external to the individual, most often at a different level of analysis.’¹³ (p198).ⁱ

‘... situational opportunities and constraints that affect the occurrence and meaning of organizational behaviour as well as functional relationships between variables.’³ (p386)

‘the interrelated conditions in which something exists or occurs.’ (various)

ⁱ The authors go on to describe context as consisting of constraints versus opportunities for behaviour, proximal versus distal stimuli, and similarity versus dissimilarity among organisational members.

I have always liked Noel Williams’s humorous, but insightful, offering:

*“Context” is one of those words you will encounter again and again, without anyone offering anything like a useful definition. It is something of a catch-all word usually used to mean “all those things in the situation which are relevant to meaning in some sense, but which I haven’t identified”.*¹⁴

One definition that might better connect with bio-medicine than some of those above is that context refers to all those variables (z) that influence or could influence the ‘independent’ (x) and dependent (y) variables directly under study – in other words, context is another name for all the intervening variables. This is, of course playing into the hands of positivism (see later), but at least has the merit of shifting the mindset from simple, linear, one-way, cause–effect ‘chains’ in a closed system to more of an open systems, multi-factorial mindset.

One area of definition that will need further thought and refinement is whether we should be talking about contextual influences, determinants, factors, forces, frames, enablers, boundaries, attractors, barriers or vectors, since each of these implies something rather different about the nature and effects of context – for example ‘determinant’ is a lot stronger than ‘influence’.

1.2 Defining context through metaphor

Given the dryness and obtuseness of most of these definitions, it is not surprising that many writers have switched tack to define context metaphorically rather than literally. Perhaps the most popularly invoked

metaphor in the social and organisational sciences is the notion of ‘context as the garden, terrain or domain’. Hence from Kanter¹⁵ all the way back to Simmel¹⁶ we come across reference to the need for a rich, fertile soil (context) in which a thousand flowers (innovations, social forms, QI processes) can bloom, about ‘cultivating’ and ‘nourishing’ cultural contexts, and about enclosing and turning the barren wasteland into something altogether more productive.

Writers, such as Shortell et al, can sometimes get quite carried away with such halcyon imagery:

*“For the CQI rose to flourish it must be carefully cultivated in a rich soil bed (a receptive organisation), given constant attention (sustained leadership), assured of appropriate amounts of light (training and support), and water (measurement and data systems) and protected from damaging pests (overly burdensome regulation). Its strengths may make the ‘gardening’ worth the effort.”*¹⁷

In this case, Shortell’s exquisite organisational/QI garden was divided into four contexts (strategic, cultural, technical and structural), allowing him and his fellow horticulturalists to speculate on what would happen if any one of them were left fallow and untended (see Figure 2).

Kanter sees such cultivation as being about providing the ‘macro-conditions’ for change and innovation – a useful definition of context in itself.

“Let a thousand flowers bloom” offers an apt metaphor for innovation and change. Innovations, like flowers, start from tiny seeds and have to be nurtured carefully until they

Figure 2: Dimensions needed to achieve clinical quality improvement

Strategic	×	Cultural	×	Technical	×	Structural	=	Result
0		1		1		1	=	No significant results on anything really important
1		0		1		1	=	Small, temporary effects; no lasting impact
1		1		0		1	=	Frustration and false starts
1		1		1		0	=	Inability to capture the learning and spread it throughout the organisation
1		1		1		1	=	Lasting organisation-wide impact

0 = absent; 1 = fully present

*blossom; then their essence has to be carried elsewhere for the flowers to spread... They can grow wild, springing up weed-like despite unfavourable circumstances, but they can also be cultivated, blossoming under favourable conditions. If we understand what makes innovations grow – the micro-processes by which they unfold – we can see why some macro-conditions are better for their cultivation.*¹⁵

This idea is almost identical to the modern notions of ‘receptive’ and ‘non-receptive’ contexts encountered in organisation studies (see later), although one has to be careful to avoid assuming that context is a purely ‘macro’ thing, knowing that there is also such a thing as ‘micro-context’ and that in any case the distinctions between micro and macro (as well as meso) will always be arbitrary and blurred. Nevertheless, what is attractive about this particular metaphor from the improvement interventionist’s point of view is the reassuring notion that context can indeed be ‘managed’ (tended, tamed, cultivated) – at least with the right tools and treatments, and a good deal of sweat from the brows of those involved.

The danger of this kind of metaphor is that we end up reifying context, thinking of it as a fixed physical space populated by ‘things’, and forgetting that **temporal context** is a very important topic in its own right, particularly in human and organisational affairs. As our own research has shown,⁹ a longitudinal, historical view of a QI programme is essential if one is to understand why it has ended up as it has, where it is heading and what it may be able to achieve in future. Unlike the case of inanimate objects, history/time leaves a permanent and ongoing imprint in the form of cultural context – what Malinowski once neatly described as ‘living history’. A lot of organisational/QI practice is present- or future-oriented, which is why in a modern context we also need to look and learn backwards – or as we have said elsewhere hindsight gives insight, which gives foresight. The temporal perspective and the ‘weight of history’ should not be forgotten in future research and practice.

Another metaphor, this time from communications theory, is the notion of ‘context as noise’. From here, the focus shifts away from the notion of providing a fertile ground for change to the importance of being able to distinguish critical signals from the overall background noise – of being able to ‘tune in to’, ‘hear’, interpret and

make sense of the buzzing, blooming confusion that is the complex context in which one is permanently immersed. For example, in *How Doctors Think*,¹⁸ Montgomery discusses the practical reasoning integral to physicians’ judgement. This requires a hermeneutic approach – making sense of and interpreting context. Some part of the context will always be noise and irrelevant to the signal, although the more worrying scenario is when the symptoms of, say bowel cancer are (dis)missed as irrelevant noise rather than real and present ‘red light’ signals of the disease itself.

In the same vein, Croskerry claims that this notion is of special importance to clinical and healthcare contexts where the whole basis of making good and effective diagnoses and interventions is the actors’ ability to pick up the ‘signals’ amid what are often high levels of basic background ‘noise’. Evidence is that clinicians often do get it wrong, not least because of the high levels of contextual noise that confront them as they seek to identify the main signals and arrive at the right decisions and judgements:

‘...in medicine, a particular problem for physicians is the degree of overlap between diseases. Pathognomonic conditions (shingles, basal skull fracture or shoulder dislocation)... usually present little challenge for diagnosis; they are relatively unambiguous and readily identified. They are accompanied by very little noise. Other diseases (e.g. pericarditis and acute myocardial infarction)... manifest themselves less clearly and may be mimicked by other conditions. Worse still, some conditions (e.g. ureteral colic and dissecting abdominal aneurysm or subarachnoid haemorrhage and migraine)... may show complete overlap in their symptomatic presentation. With these latter examples, the probability of diagnosing the disease on the basis of clinical presentation may be no better than chance; noise may completely overlap the signal.’²² (pp172–173)

The high noise levels around medical issues might also explain why, in one study, nearly half of patients presenting with clear ‘red light’ symptoms of colorectal cancer were incorrectly referred by GPs.¹⁹ Another way of putting this is to say that the GPs were clearly unaware of certain key features of the context that presented itself to them.

2. Key themes and focuses of concern in the literature

In progressing beyond the one-liner type of definition, we need to point out some important distinctions within and between the various definitions available, at the same time giving an overview of some of the key themes and dimensions of the literature. This will help to give more shape to the concept of context and help identify some of the focal concerns for future research.

2.1 Subjective versus objective context

Traditionally, and very much in line with the positivist, rational–analytic philosophy that has always dominated in science and medicine, context is usually defined as an ‘objective’ phenomenon, something ‘real’, something tangible and ‘out there’ – factors, variables, objects, events, domains and so on – that impact upon and influence or determine social, organisational and individual culture and everyday behaviour (think of mountains and valleys that shape the course and direction of the stream, or billiard balls that bounce off cushions). Being tangible, these are portrayed as things that can be manipulated and shaped in much the same way as one can shape putty or clay.

In contrast, modern writers²⁰ are increasingly challenging this objectivist notion of context in favour of a more ‘subjectivist’, ‘constructionist’ or interpretivist one. Regardless of what is actually out there (if anything), they say, what is important is how people (selectively) attend to, interpret, and attach significance and relevance to what they perceive as being out there and external to themselves (the reified world), and how that feeds in to their behaviour and interactions with others. This is important to the research endeavour, because it suggests we shouldn’t be going out there (wherever there is) looking for some kind of real contextual terrain to map, measure and analyse, as a cartographer might do, but focus instead on how people **make sense** of what they see as being out there (back to the signals and noise metaphor above). One good example of this perspective⁷ is how the UK Parliament struggled to make sense of the so-called Iraq and weapons of mass destruction (WMD) contextual ‘threat’, knowing as we now do that there were no WMDs in the ‘real’ environment – it was the context in people’s heads that was the all-pervasive and important issue at the time. This example also underlines how ‘context’ is

constructed and reconstructed in narrative and stories, and how it can often be little more than a confabulation. Of course, the problem with confabulations – unreal fictions – is that they can have the same consequences as if they were real, in this case invasion and war.

On the other hand, the saying ‘out of sight, out of mind’ reminds us that if we don’t ‘see’ some contextual thing or other, even if it is staring us in the face, it is generally not relevant to our conscious action. But equally, and more subtly, ‘out of mind, out of sight’ reminds us that if we don’t think a particular aspect of context is relevant we won’t even see it. In short, people have to be mindful of context (even in a vague way) before it can be said to assume any significance in what they say and do. Arguably, the study of context therefore begins ‘internally’ in cognition rather than ‘externally’ in the environment.

It also follows from this subjectivist viewpoint that, as well as being a social thing, ‘context’ is also a very personal thing, that there is no common or universal set of contextual interpretations shared by everyone. Just as a botanist walking through a field will see different things from the geologist walking beside them (because of differences in their mental sets), a clinician will see context in a different way, and attend to different aspects of that context, from a manager or IT technician. Again, this is important to contextual research, since it makes the challenge one of immersing oneself deeply in the different actors’ point of view and seeing context from their various standpoints (the ‘insider’ or emic perspective), and not trying to objectively represent it from a single external ‘outsider’ position (etic perspective). Researchers describe this as a focus on the ‘definition of the situation’ – on how those involved make the context intelligible **for themselves**. This perspective calls for research methods, approaches and skills that may be very different from the ones that are in mainstream use in ‘scientific’ and medical research.

2.2 Receptive and non-receptive contexts

Professor Andrew Pettigrew and colleagues at the Universities of Cardiff and Warwick are credited with the authorship of the ‘receptive and non-receptive contexts’ labels. It is because of their work – initially in the private sector and latterly in the public sector – and, even later, our own work with NHS Leading Modernisation Programmes, that they have become embedded quite deeply in the language, thinking and practices of a

number of QI initiatives. Because of their impact, it may be worth spending a little time exploring their origins and nature.

The phrase ‘receptive and non-receptive contexts’ may sound a bit dry and academic but behind it, in fact, lies a rich story that touches on a mass of important issues relating to the NHS’s past, present and future change/QI agenda: policy and strategy implementation failure (the implementation gap/strategic drift); the diffusion of innovation and change; the issue of sustainable change (contextual embeddedness); cultural change; the politics of change; leadership processes and more. A particular interest of Pettigrew’s was why the rate and pace of (successful) change/improvement varied so much between units and localities.

The story begins a long time ago with Pettigrew’s solo ethnographic research work at ICI between 1975–83, written up in his classic book *The Awakening Giant*.²¹ ICI House at Millbank was the strategic centre and the house for the Main Board that determined the shape of the business and the conduct of its eight divisions. There were three chairmen during Pettigrew’s period of work, but it was the last one, John Harvey-Jones, who came to be lionised as the great guru of strategic change leadership (from 1982 onwards). We should say that Pettigrew was not the first person in the world to draw attention to ‘organisational context’ as he did in this book. For example, prior to his book there had been some classic works on the relationship between structural and environmental context and innovation.^{22,23} Pettigrew, however, was the first person to make it empirical and every day, showing how the ups and downs in the fortunes of ICI – levels of performance, rate of innovation and change – were connected to how successfully senior management ‘read’ and ‘managed’ context as part of the overall strategic endeavour. Basically ‘receptive contexts’ (by accident or design) led to increased levels of performance and innovation/change, whereas ‘non-receptive contexts’ led to decline in performance and organisational stagnation. The role of the strategic leader – what made people like Harvey-Jones and other similar guru leaders like Colin Marshall of BA, and Jack Welch of GE stand out – was their ability to create a receptive context for their organisations, at the same time taking remedial action against the dysfunctional or non-receptive aspects of the wider context. They were also proactive with regard to context, in Weick’s words, ‘enacting the environment to

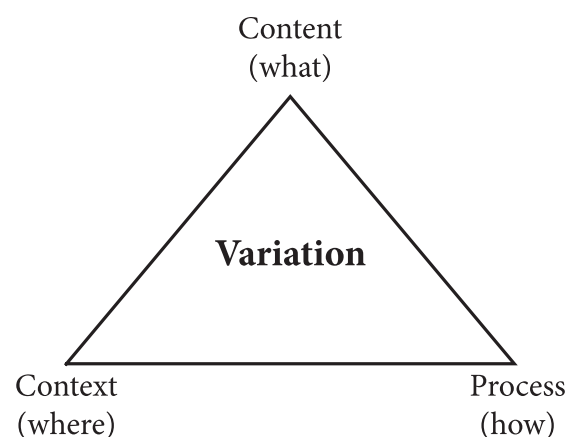
which they respond’, acting towards it, trying to master and outwit it, not just reacting to it (Welch: ‘don’t wait until the fire is at your door before trying to put it out’).

A few years later (1986–90), Pettigrew switched his attention from the private to the public sector with a study of strategic service change processes within the NHS, in the aftermath of the introduction of general management.²⁴

This research spanned eight regions (Mersey, NE Thames, North Western, NW Thames, Oxford, SW Thames, W Midlands, Yorkshire) and focused on eight ‘high change’ districts (DHAs), ie districts that were tackling major strategic issues and trying to work through some big agendas for change. They included St Helens and Knowsley, Paddington and N Kensington (AIDS), Preston (Overspend), Bloomsbury (AIDS), Bromsgrove and Redditch and Milton Keynes (both new district general hospitals), Mid Downs and Huddersfield (closure processes in mental health). The research team concentrated upon the motors of and barriers to change and the skills associated with change management.

As time went on the question of local variability in the achievement of strategic change became more and more central to the project. Why was it that the rate and pace of change varied so much between localities processing the same issue or within the same locality but across different issues (the same as had been found between different divisions of ICI)? The starting point was that variation and differences between DHAs could be explained by a subtle interplay between the content (the what) of change, the context (the where) of change, and the process (the how) of change (see Figure 3).

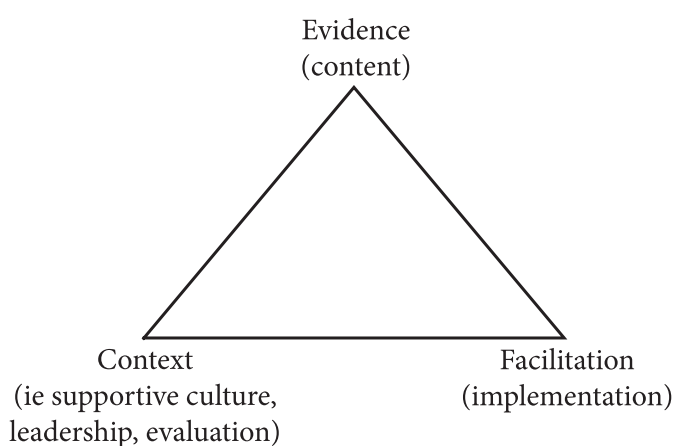
Figure 3: Explaining variance between District Health Authorities²⁴



The team identified eight highly interrelated factors which produced receptivity to change in the DHAs they studied – all of them features of context and management action that seem to be associated with forward movement (drivers, attractors, mobilisers, enablers). These are presented in section 3, ‘Models taxonomies and frameworks for context’.

Further work on ‘receptive context’ has been done since then – indeed, as already noted, the phrase itself has become part of the NHS and wider healthcare QI vernacular. A recent example is the work of Greenhalgh et al^{25,26} on receptive contexts for organisational innovation (diffusion and adoption) which identified four particular features of organisational context that made an organisation receptive to change: leadership and vision, risk-taking climate, clear goals and priorities, and high quality data capture systems. Before that, we had the work of the Royal College of Nursing in the UK during the 1990s that culminated in the PARIHS research into practice model for healthcare improvement (Promoting Action on Research implementation in Health Services).^{27,28} The framework proposed that successful implementation of evidence into practice is a function of three broad interactive elements (evidence, context, and facilitation – see Figure 4). A basic premise is that each of these elements is positioned on a continuum from weak to strong, with regard to support for the implementation project in question.

Figure 4: Functions of successful implementation of evidence



The resemblance to the Pettigrew model is striking here. Unfortunately, as noted by those involved and like many of the frameworks mentioned in this paper, as a conceptual framework, PARIHS still remains untested and therefore its contribution to the overall development

and testing of theory in the field of implementation science is largely unquantified.²⁹ There is an important point here for future research and practice, in that before going out and adding yet more frameworks to the QI field, it may be worth encouraging wider testing, elaboration and synthesis of the many existing ones.

2.3 Inner (micro, experience-near) vs outer (macro, experience-distant) context

An equally important contribution to the context literature, and part of the same body of work, has been Pettigrew’s²¹ useful distinction between ‘inner’ (immediate, intra-organisational, micro) context which includes things like organisational and divisional cultures, group norms, leadership, local champions, political processes, and ‘outer’ (social, political, macro) context – for example, NHS and broader economic, social and political trends and events. According to Pettigrew, the former can be directly managed but the latter is usually too big and distant to be managed, and has to be related to in the same way that a surfer would pick up and ride a wave, that is to say opportunistically, as one looks for an energy source to latch on to that will take one roughly in the direction in which one wants to go. This is what Waterman once referred to as ‘informed opportunism’, a feature he claimed to be the defining quality of our best strategic leaders:

‘They are the best of strategists precisely because they are suspicious of forecasts and open to surprise. They know the value of being prepared, and they also know that some of the most important strategic decisions they make are inherently unpredictable. They think strategic planning is great – as long as no one takes that planning too seriously. They often see more value in the process of planning than in the plan itself.’³⁰

Returning to Pettigrew, for him there are two steps in the contextual intervention in relation to inner and outer context. The first is about attending to and then diagnosing, scanning or scrutinising the context:

‘A key part of the process influencing the innovating/change group’s fate rests on their perception of features of the inner and outer context, together with the skill with which they act on that understanding in the light of changing features of context through time. A group

interested in creating change must itself attempt to fashion a social context in which it can survive and prosper... Context is then being treated neither just as descriptive background, nor as a source of opportunity and constraint for change, but as something which must be accessible and understood by the innovating group, and ultimately mobilised to achieve practical effects.²¹ (p482)

Second, there is mobilisation and the intervention itself:

'... part of the executive skill in generating energy and commitment to strategic change rested on the executive's ability to understand, come to terms with, and then alter features of their inner context such as the divisional structure and culture, and to mobilise changes in outer context such as economic trends and business competitive position to help justify and unify action in the change sphere.'²¹ (p481)

The 'content, inner and outer context, process triangle' devised by Pettigrew and his colleagues has stood up well to the test of time. For example, a recent literature-based study by Damschroder et al³¹ investigated why many interventions found to be effective in health services fail to translate into meaningful patient care outcomes across multiple contexts (what change management theorists refer to as the 'implementation gap'). This involved using a comprehensive QI literature review to establish a 'consolidated framework for implementation research' (CFIR). The final framework identified five domains influencing QI effectiveness: the intervention (content), inner context and outer setting (ie context), the individuals involved, and the process by which the implementation is accomplished – four of the five thus being from Pettigrew's original. What is important is their assertion, again reminiscent of Pettigrew, and of our work in this area⁹ now usefully linked by them to Pettigrew's, that it is the dynamic and ongoing **interaction** between these domains, rather than any one of them individually or independently, that accounts for the effectiveness of a QI intervention and the striking variation between similar QI interventions in different places. Their account of inner and outer context is sophisticated and worth quoting:

'The next two domains in the CFIR are inner and outer setting. Changes in the outer setting can influence implementation, often mediated

through changes in the inner setting. Generally, the outer setting includes the economic, political, and social context within which an organization resides, and the inner setting includes features of structural, political, and cultural contexts through which the implementation process will proceed. However, the line between inner and outer setting is not always clear and the interface is dynamic and sometimes precarious. The specific factors considered 'in' or 'out' will depend on the context of the implementation effort. For example, outlying clinics may be part of the outer setting in one study, but part of the inner setting in another study. The inner setting may be composed of tightly or loosely coupled entities (eg, a loosely affiliated medical centre and outlying contracted clinics or tightly integrated service lines within a health system); tangible and intangible manifestation of structural characteristics, networks and communications, culture, climate, and readiness all interrelate and influence implementation.'³¹ (p5)

2.4 New and emerging perspectives on context

One important idea that has attracted growing support over the past decade is the notion of context as a **process**, dynamic, fluid and constantly moving, not lumpen, material or static – more like a sea or clouds than the usual collection of terra firma references (see section 1.2 above). This accords very closely to the contemporary systemic perspective that 'requires redefining context as a process (*contexture*) embedded in a system's intrinsic operational "situatedness"'.³² Karl Weick³³ has always been fond of what he calls 'the innocent little i-n-g', which places emphasis on the process or human actions rather than situation, which in our case is 'contextualising' rather than 'context'.

Dopson and Fitzgerald³⁴ put it well when they say that context is not just the backcloth to action (symptomatic of a static view of context) but an interacting element in the diffusion process – in short, part of the action itself.

This perspective has important implications for both the research and 'management of context' point of view: because context (like the seas and seasons) is constantly changing these changes and their effects need to be tracked and noted (as one moves with them), and duly taken into account in the timing and nature of the

intervention (a wintery or stormy context may best be postponed to await the calmer spring). To change the metaphor, what we have here is a moving target, the challenge and imperative for the interventionist being, as best as one can, to ‘capture the reality in flight’. The success of the intervention will depend a great deal on the ability to use foresight to anticipate what the contextual state will be at any given point. Clearly this requires a longitudinal perspective on one’s subject matter, as opposed to, or as well as, a cross-sectional one.

Of all the metaphors that have been offered for the notion of context as a process, perhaps the most engaging is that of change and improvement journeys as ‘wagon trains’ which move through a multitude of ever-changing, difficult contextual terrains as they inch their way towards their final destination. Comparing such journeys to the nineteenth-century US wagon train heading westward to California from the relative safety of the eastern seaboard, Pettigrew draws our attention to the hazards and uncertainties lying in wait in the punishing contextual terrain that has to be crossed.³⁵ As the journey proceeds, there are ups and downs of energy as obstacles are rounded and blind canyons and other deadlocks encountered, and there is a sense of emotional relief as landmarks are reached. And context is not just the physical terrain but also the living things that inhabit it and lie in wait, like animals and people, by no means all of them of a friendly disposition (see my later reference to political context).

Reflecting on the literature referred to here in the context of healthcare, I also subscribe to the view that it will be essential to challenge the conventional notion of context as a fixed entity, a convention that all too often results in the production of boring – and highly predictable – lists of ‘key factors’ or influences that have little academic or practical benefit (eg leadership, culture), to this idea of a change journey that moves through and across an ever-changing context – a practice that will highlight the ongoing interactions between the ‘actors’ and their environment, and their constant need to adjust and adapt to these changes as they encounter them. As Pettigrew and others have argued, this will require a paradigm shift in the way we would normally do contextual analysis:

‘Focusing on interaction moves away from the variables paradigm toward a form of holistic explanation. The intellectual task is to examine how and why constellations of forces shape the

*character of change processes rather than “fixed entities with variable qualities”.*³⁶

The other point to make here is that if, as writers are saying, context is not so much removed from the action/process as part of or integral to it, then it would be unwise to promote any kind of research or practice that encourages its treatment in isolation from the rest. In other words, if research and practice are to give greater attention to context, and particularly the dynamics of context, this needs to remain within the context (sic) of the bigger content–context–implementation triangle.

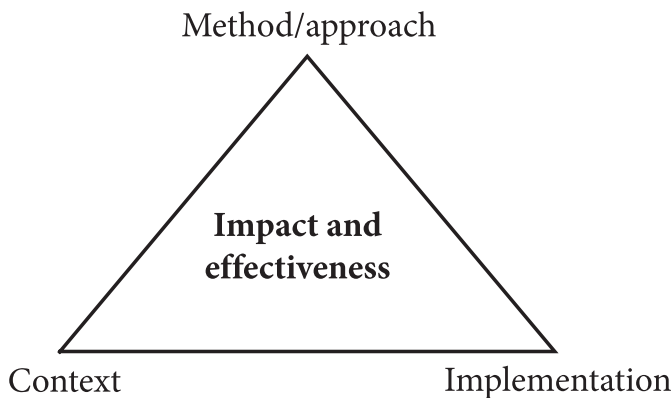
3. Models, taxonomies and frameworks for context

In this section I will illustrate the range of contextual models and taxonomies that have been devised by healthcare and QI researchers in recent years to make sense of their findings, including our own. Most of these have been derived inductively from in-depth (often evaluation) research, and are therefore based upon primary data and empirically ‘grounded’. Most did not set off to investigate context but became engaged with it as other explanations failed to provide the necessary answers, especially as to the reasons why there was such wide variation in QI outcomes between different sites, even when, as in the first case, they were following an identical methodology and shared the same improvement targets.

3.1 The Breakthrough Collaboratives: determinants of effectiveness and inter-team performance variation

In this, the first independent academic evaluation of a UK Collaborative (the Orthopaedic Services Collaborative of 2000–02), we found an average improvement in reducing patient length of stay of 12.6% among teams overall, but a range between sites that varied from a 43% to -3% improvement on targets.³⁷ In trying to account for this variation we pinpointed three broad areas for attention: the way the method was adapted locally, the model of implementation itself, and the ‘back-home’ context within which the collaborative method was introduced and being made to work (see Figure 5).

Figure 5: Conceptual framework explaining impact and effectiveness of a UK collaborative³⁷



Clearly some contexts – at both Trust and microsystem level – were more fertile or receptive than others, particularly in hospitals where there was top level support and sponsorship, good IT, a multi-level leadership system, strong project management, clear roles and adequate communications structures: none of this was surprising. Three contexts stood out above all others: the **leadership context** (style, method, level of support in programme board, faculty board, region, executive team level, local team leaders); the **political context** (level of empowerment, locus of decision making, configuration of top down/bottom up, and mix of allies, adversaries, opponents, bedfellows and fence-sitters); **cultural context** (shared mindsets around quality, risk, participation etc).

Later research on the UK cancer services and mental health services found similar contextual influences, thus offering additional support for our simple QI ‘triangle’.

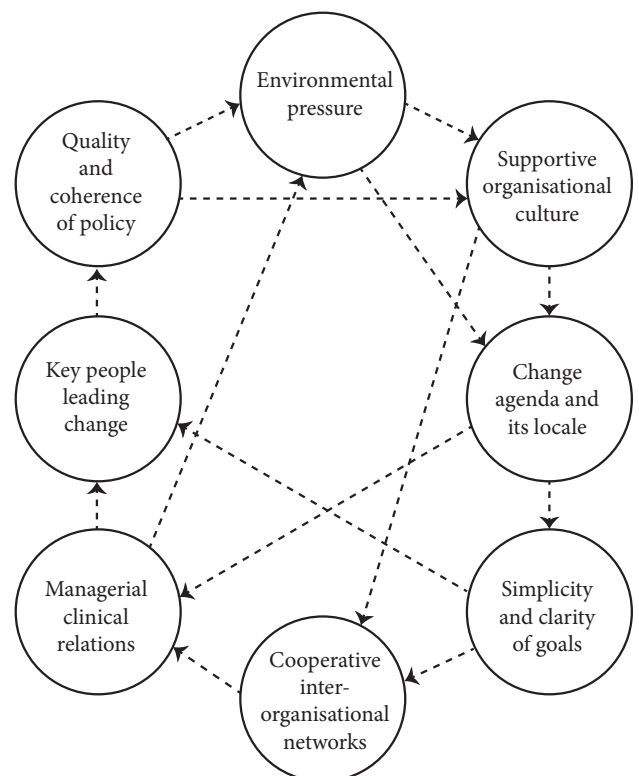
3.2 Pettigrew and Whipp’s study of strategic service change processes in the NHS, in the aftermath of the introduction of general management

I have already made reference to this empirical study of eight ‘high change’ DHAs in the NHS in the late 1980s.²⁴ Figure 6 summarises the authors’ findings. This highlights eight factors that the authors claim, in combination, offer a highly receptive context for strategic change.

The study is carefully researched and the model visually attractive, but it does begin to raise questions in one’s mind as to whether this – and the many models like it, including some of our own – is the kind of model that should be held up as ideal for the next wave of contextualised healthcare research. There are a number

of disappointments with it: first, the factors described are depressingly familiar and predictable, indeed might easily have been gleaned from any first-year textbook on organisation studies without the need for or recourse to empirical research. Surely there must be some things about context that we don’t already know about. Furthermore, the eight factors are expressed at such a high level of abstraction that it would be difficult for any researchers to go out and test or replicate them, or strategists and QI professionals to use them in any practical way. Third, although the attractive ‘wheel’ graphic – as with so many others like it – shows a complex, dynamic, interactional system, with each of the contextual factors able to influence and be influenced by a myriad of other factors, the study has little to say about the nature, patterns or directions of these interrelationships and interactions. In short, the dynamics of context remain a mystery. The graphic is merely a gesture towards the notion of context as a system and process, and all it really is (if one is allowed to be critical here), is a conventional list of key success factors dressed up as something else. This must be avoided in future research, although this will be difficult given that complex, open systems analysis and measurement are still in their infancy.

Figure 6: Receptive contexts for change: the eight factors²⁴



In 1990, Senge had this to say:

‘Complex organisations are bound by invisible fabrics of interrelated actions... since we are part of that lacework ourselves, it is doubly hard to see the whole pattern. Instead we tend to focus on snapshots of isolated parts of the system and wonder why our deepest problems never get solved... The essence of mastering systems thinking as a management discipline lies in seeing patterns where others see only events and forces to react to.’³⁸

This, I believe, still offers the kind of mindset that we should be taking as our main contextual challenge for the future; one that resists the still prevalent idea of contextual ‘factors’, and embraces notions of contextual ‘patterns’ and ‘processes’. What this would help do, to paraphrase something Martin Marshall said at the 2010 *Vin McLoughlin Symposium on the Epistemology of Improving Care*, is to position ‘context’ and context research at the revolutionary rather than evolutionary end of the spectrum, so that there is not just recycling of old models or a skirting of long-standing knowledge lacunae, but the beginning of a search for something new, especially with regard to contextual dynamics. This, of course, implies that we may also need to be looking into as yet unexplored areas of the literature and exploring possibly fruitful links between them and the QI endeavour. For example, one body of literature currently attracting the attention of QI researchers like Øvretveit is the resilience model in ecosystems and organisational dynamics.^{39,40,41} Another is the ‘new’ generative (self-perpetuating) change/generative environment models in organisational development and education which also resonates strongly with the notions of **continuous** improvement found in QI research and practice, and privileges often neglected concepts of unplanned, spontaneous, energy-driven change and improvement.

3.3 HSMC Evaluation of the Booked Admission Programme

Another example of a healthcare context model – not dissimilar from Pettigrew’s, in that it too found itself struggling to explain the wide performance variation between the 24 participating trusts and clinical conditions (outpatient appointments, day surgery, inpatient treatment) involved in this QI programme – is the Ham et al’s HSMC evaluation of the NHS Booked

Admission Programme first wave pilots between 1999 and 2002.⁴² The research team’s overall finding was that there had been impressive progress towards implementation of booked appointments in the first year, but then some slipping back in the second year, although overall the performance of the pilots was better at the end of the period under review than at the beginning.

However, variation was again the major issue:

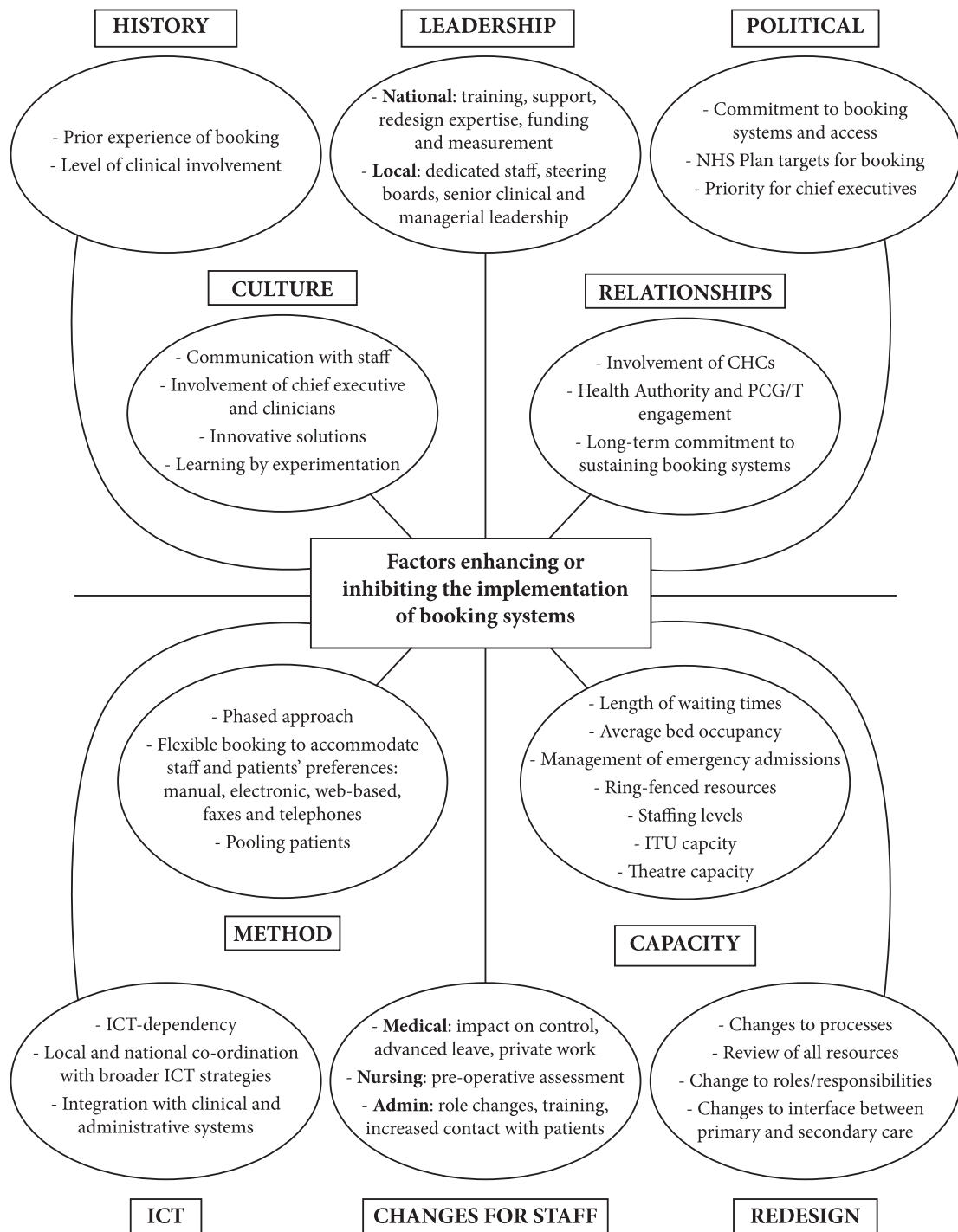
‘There was wide variation between the pilots in what was achieved. Three pilots achieved a high level of booking across a large proportion of day case work. By comparison, only one pilot achieved a high level of booking in relation to inpatients. Direct booking from general practice was limited to a small number of pilots and relatively few patients experienced this service.’

‘There was also variation between specialties in what was achieved. In relation to day cases, oral surgery and gynaecology had the highest proportion of patients waiting with a date, and general surgery, ophthalmology and urology the lowest proportion. In relation to inpatients, ophthalmology and gynaecology had the highest proportion of patients waiting with a date, and orthopaedics and general surgery the lowest proportion.’⁴² (xiii)

The root cause, they concluded, was contextual: ‘the most important explanations of variations between the pilots are to be found within the organisations themselves and their local environments’. Drawing on Pettigrew and Whipp’s work, they attempted to map those features within the wider environment of the programme that were receptive (enhancing) or non-receptive (inhibiting) to successful implementation and which offered a plausible explanation of the variation they found (see Figure 7).

The similarities and overlaps between the two ‘ideal context’ models of Ham et al⁴² and Pettigrew and Whipp²⁴ are striking, particularly when one gets behind some of the differences in language and labels to find common issues like leadership, structural and cultural context. However, recalling what I noted earlier about the importance of temporal context, it is reassuring to see history featuring more prominently in Ham et al’s work. For example, they say:

Figure 7: Factors inhibiting or enhancing the implementation of booking systems in the first wave booking pilots⁴²



‘Pilots with a receptive context (especially a history of booking), effective leadership by a chief exec and senior clinicians, a dedicated project manager and team, and a flexibility of approach to clinicians were at an advantage compared with pilot sites without these characteristics.’⁴²

They also elaborated further on the four main contextual influences in a QI programme such as this (although again none of them are surprising):

- booking will not work unless consultants and GPs can be persuaded to take part (and you cannot work around doctors)
- starting with enthusiastic doctors and extending booking to others is important to progress
- surgeons must be able to see how they will benefit from booking if scepticism is to be overcome
- a range of contextual incentives is important to encourage doctors to book patients
- national leadership is important in creating the context for local innovation.

They also noted – as have many others – that culture was a particularly important part of the contextual architecture for QI:

‘there needs to be a strong and supportive organisational culture of the kind that was present in the sites that made the most progress to enable new working practices to become established then embedded’.

This is the point at which a degree of unease begins to creep in once more, as one asks what they meant by a ‘strong culture’? As I have asked previously,⁴³ is it meant to be like strong tea or a strong heart or pair of lungs – basically the stronger the better? Unfortunately not, for we know that so-called ‘strong cultures’ – such as some of our previously fallen great companies (BA, IBM) – can also end up being highly resistant to change, that is maladaptive, having become conservative and complacent partly as a result of their very own success, thereby failing to adapt to changing circumstances. We are not saying ‘culture’ should not be represented in these models’ contextual schema, just that much greater clarity is needed on the terms we use. Also, a point I have already made, there is a danger in reifying context, so that in this case culture becomes an external ‘variable’ or thing, when in fact a

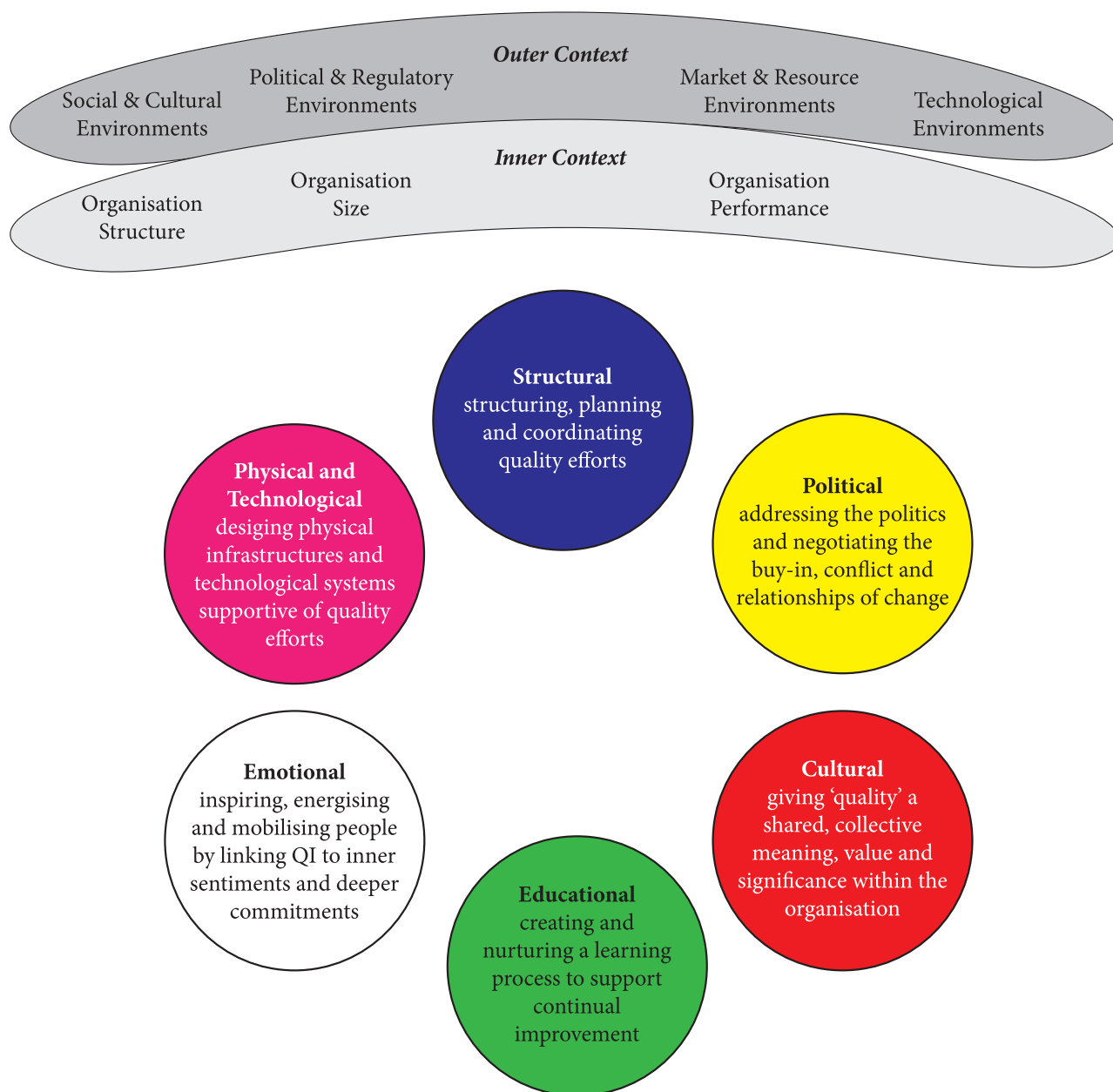
constructionist – indeed most anthropologists – would say that culture is not something an organisation ‘has’ but what an organisation ‘is’. My point is that before we throw words like culture or structure at context (itself a definitional minefield) we need a clearer view of what they themselves mean, and should be prepared to adopt new and more sophisticated perspectives towards them.

3.4 Bate, Mendel and Robert’s Nuffield-RAND study of QI in US and European healthcare systems

The final illustrative example I want to give is a contextual QI model in healthcare found in our own work.⁹ This was a study funded by the Nuffield Trust and RAND, which comprised a dozen in-depth, ethnographic case studies of QI programmes in the US and Europe. Its goal was to identify the factors and processes that lead to success or otherwise of a quality improvement programme. Each case was researched and presented as a detailed narrative or story, tracing, through the eyes and experiences of those involved, the various stages of development the project had gone through, and the challenges and various bumps in the road they had encountered on their way. This in itself highlighted the important temporal context that there is for any QI programme, and the fact that it would be impossible to know why it had developed in the way that it has without knowing where it had come from and what challenges it had encountered en route.

Initially, what struck us was the uniqueness of each of these stories, and the hugely diverse routes each healthcare system had taken to reach their own QI summits (our focus being on exceptional QI programmes). However, the more we read and became familiar with these stories, the more conscious we became that each had been compelled, time and time again, to face up to the same common range or set of challenges; it was only their chosen solutions that had made them varied and different. In the end, as a result of repeated readings of the cases, we were able to boil these down to six common challenges for QI (see Figure 8), their relevance to this paper being that each might be described as an organisational contextual challenge. For example, the structural challenge for any QI process was to create the kind of receptive context within which the QI effort was able to benefit from being well structured, planned and coordinated – an

Figure 8: Organising for quality in healthcare: the six universal challenges⁹



effort that was structurally enabled and constructed on safe foundations. The important thing about the six context bubbles was that context wasn't a set of factors 'out there'. Each 'bubble' represented an area of human agency, management and leadership, an area of often intensive, frenetic collective activity where those involved struggled to 'manage' that particular context, to **shape and make** it receptive: managing the politics (yellow), implementing supportive IT systems (pink), creating teams and shared values that will hopefully see the QI programme to a successful conclusion, and so on.

Looking at the data, we proposed that each of the six organisation contexts was important in some way for the success or otherwise of the QI effort, or to put it the

other way, that the absence or weakness of a receptive context in any one of these areas would lead to a particular kind of failure or underachievement:

Absence of...	Leads to...
Planning and coordination	Fragmentation
Political process	Inertia
Cultural process	Evaporation
Learning process	Amnesia/frustration
Mobilisation	Energy-sink/fade-out
Technical and other systems	Exhaustion

Source: Bate et al⁹

The inner and outer contexts in the graphic (grey) referred to the more fixed, distant and unalterable aspects of the environment, the former including issues like organisational size, market and technology, and the latter the regulatory, financial and market frameworks for an industry or even a country. These influenced the direction in which a local QI programme developed and was able to develop and therefore needed to be taken into account and placed on the horizon of any QI effort, while at the same time accepting that one could have only limited direct influence on it.

Up to this point, it might be said with justification that this model is little different from any of the other models described in this section – that it is little more than an attractive graphic for a bundle of key success factors that may be associated with QI. Acknowledging this, we set out to go further, focusing not so much on the contextual bubbles themselves but the connections, patterns and interactions between them (literally the between-ness aspects). As we put it, our aim was to move from a ‘factors-based’ model to a full-blown ‘process model of organising for quality’.

This is how we laid out our stall:

‘The reason we need to resist the temptation to merely (and endlessly) list and categorise key variables is that the key to quality – if there is one – is not to be found in the factors as such, but in the processes that connect them... The starting point is to recognise that we cannot approach human factors in the same way as we would technical or clinical factors – as independent and dependent variables in closed cause-effect relationships with each other... organisation researchers have repeatedly drawn attention to the weaknesses and limitations of the variables paradigm and the particular type of scientific language associated with it. Thus, while it is nice if only it were true, there is rarely a single or even dominant set of factors that explain why only 55% of patients receive their recommended care... Rather, studying organisations as systems and processes requires: holistic studies... which at least open up the possibility of our being able to see how system dynamics emerge and play out (especially between the different levels of the system); a way to explore the patterns of relationships, interconnections and interactions among the organisation’s or system’s parts, ideally

over time; a particular sensitivity to the positive and negative feedback loops that link factors and processes together... the positive thermals that can – sometimes slowly, sometimes quite suddenly – take an improvement effort skywards... or the negative downdraughts that can take it crashing to the ground.’⁹ (pp188–189)

Our first attempts to model the QI ‘system’ using social network software were exciting (see Figure 9) since they showed, arguably for the first time, what a complex QI system might look like, but they were too raw and fine-grained to be useful from an interpretive point of view.

Further refinements of the software were more successful, leading to maps like the one in Figure 10 overleaf. Without going into detail: basically the bigger the bubbles and the thicker the lines, the more important the particular context – and its relationships to other contexts – was within the overall improvement system. (In this case, Cedars Sinai, one could look to structural and cultural contexts and the synergies between them as an explanation for its success, at the same time not neglecting the educational aspects.)

Although our framework is still relatively recent, and therefore largely untested beyond the original case studies, there does seem to be growing empirical support for it. For example, Krein and colleagues’ in-depth study of six US hospitals engaged in QI projects to reduce hospital acquired infection (and specifically central line-associated bloodstream infections – CLABSI) confirmed that the six contextual domains we identified in our case studies did provide a plausible explanation for why some of their hospitals had been more successful with improvement practice implementation than others:

‘During the course of our analysis we found that the common organizational challenges to organizing for quality described by Bate and colleagues (Bate et al, 2008), corresponded with our results and provided a useful interpretive framework for our findings. These challenges are grouped into six organizational domains: structure, politics, culture, education, emotions, and physical or technological infrastructure. Four of these domains (structure, politics, culture and emotions) were closely aligned with our key themes (leadership, culture and resources; people issues; and champions). Thus, for the

Figure 9: Cedars-Sinai 'detailed' sub-process map⁹

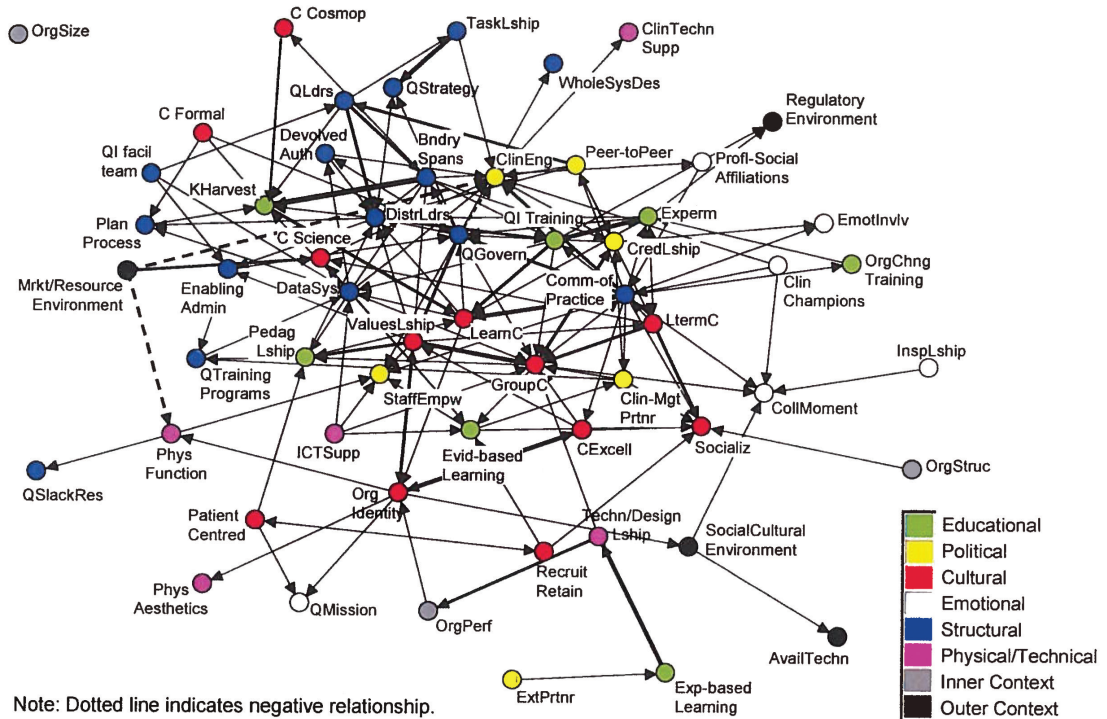
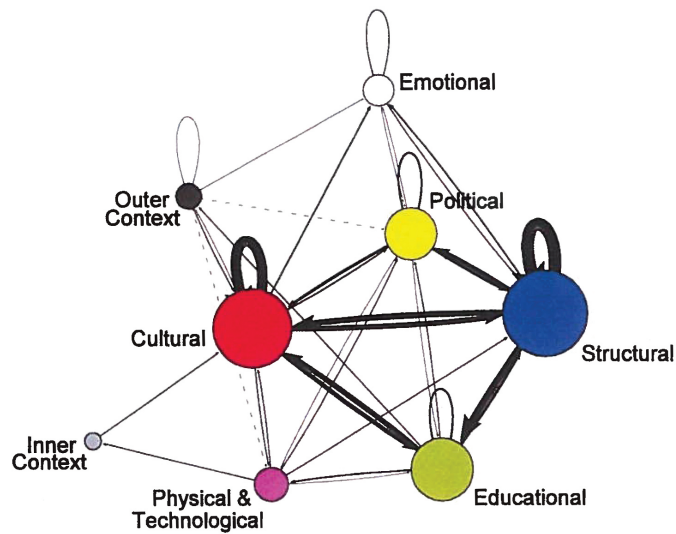


Figure 10: Cedars-Sinai 'high level' process map⁹



Process	Total Sub-Process Ties (#)	W/in process (%)	IN-ties (%)	OUT-ties (%)	Most Central Sub-Processes
Structural	100	31%	24%	45%	Communities-of-Practice, Quality governance systems, Distributed leadership, Boundary-spanner roles, Data and monitoring systems
Cultural	85	28%	40%	32%	Group culture, Values/symbolic leadership, Culture of learning, Organizational identity
Educational	54	7%	52%	41%	QI training, Knowledge harvesting
Political	37	11%	54%	35%	
Emotional	13	15%	62%	23%	
Physical & Technical	16	0%	44%	56%	
Outer Context	9	11%	33%	56%	
Inner Context	4	0%	50%	50%	

remainder of our interpretive work we used these four domains. Structure refers to the elements that influence planning and coordinating quality improvement efforts, such as leadership and resources. Politics refers to relationships within the organization, particularly in negotiating and establishing buy-in and engagement by stakeholders. Culture refers to the shared mindset, common mission or values espoused throughout the organization. The emotional component refers to the degree of commitment and passion for the organization and its mission.¹⁰ (pp1693-1694)

Work by Marjorie M Godfrey and colleagues at the Dartmouth-Hitchcock Medical Centre⁴⁴ also shows how the Bate et al framework, and associated ‘QI codebook’ for practitioners, was successfully used to identify where and why QI projects had gone well and where and why they had gone badly. Not only was there support for the various categories of contextual influence identified in our book, but the research also showed that the self-help practitioners codebook derived from it could be computerised in SurveyMonkey form for use by those involved in helping to identify their own contextual strengths, gaps and weaknesses in relation to QI. Another piece of as yet unpublished work based on a collaboration with fellow author Glenn Robert is an internal report outlining Yeovil District Hospital’s positive experiences of using our ‘six challenges’ framework as a diagnostic tool for their QI strategy.⁴⁵ Interviews with 42 members of staff at all levels showed that the framework and codebook provided both a useful heuristic and a practical method for reflecting on the importance of contextual issues to a QI programme.

4. Key questions for research

If healthcare research is to take the kind of ‘contextual turn’ some of us have in mind it will almost certainly need to address the following questions.

4.1 What are the compelling arguments for making context and contextual awareness central to intervention research, theory and practice?

Most of the arguments in favour centre on the fact that we cannot even begin to understand or explain our findings or what is happening (or not happening) without looking beyond the focal variables to the wider

situation in which they are situated and embedded. For example, why do key variables not work in the expected way or – one of the most vexing problems in the field – why is there such wide study-to-study and place-to-place variation in (our case) improvement outcomes even when the key variables are similar or the same? Context is likely responsible for this, in which case contextual analysis becomes an imperative. Ignoring it is tantamount to being self-delusional.

4.2 What should be the philosophical and epistemological underpinnings of any future context and contextual research in QI?

At first blush this question might seem to have little relevance to the research and daily practice of quality improvement, but on closer examination, I believe, we find that it has everything to do with it. The simple point is that how we **think** about context will determine how we go about researching it and ultimately trying to manage and do something about it. In short, as the next quotation suggests, the issue is not epistemological but functional. Perhaps the main question here is whether we approach context in the usual rational–analytic way (usual, at least, for healthcare and medicine) or in the more constructivist way I have been describing. As I say, the choices we make in this regard are important because they will not only determine how we go about studying context but how we come to know and relate to it, and what we find out and do about it.

‘At its heart, the distinction between the rational–analytic and constructionist–synthesis approaches is an epistemological one concerning the nature and manner of the knowledge and learning that is being investigated and produced through the research. Whereas rational approaches veer toward distance, clarity and generalizability, constructionist approaches favour closeness, complexity and locality. The distinction is not necessarily ideological – though advocates often behave as though they occupy rival evaluative camps – so much as functional. Rational–analytic approaches seek to explain social experiences by isolating and classifying elementary parts or variables and understanding how these function within mapped, causal chains of influence. Constructionist–synthesis approaches understand explanation as

*materializing from description, where description involves appreciating and recounting social experience through forms of involvement within that experience, whether participating in real time or second hand, through the study of narrative accounts.*³²

Clearly the pat answer is that we need to do both, but is that really possible, and if the approaches really are incommensurable, are we not asking for trouble as we vainly search for the mythic synthesis? Like it or not, I believe we do need to approach context pluralistically but the question is how we can do this constructively rather than destructively. Leaving things to work themselves out (whether in a research or practice setting) could be a risky strategy. As Tony Watson notes:

*'If one constructs a building indiscriminately using bricks of different sizes and shapes, the building is unlikely to stand up... Given that different disciplines tend to be based on fundamentally different assumptions about the world and about knowledge development, their use alongside each other could be as dangerous as building a house without adopting a consistent set of construction principles... The question is how can one achieve the conceptual and methodological integrity one requires to avoid an "anything goes" approach to material from various disciplines.'*⁴⁶

However, there is a small literature that is extremely helpful in suggesting ways in which a multi- or trans-disciplinary approach to context of the kind we envisage may be achieved. Notable among these is the work of Stige et al⁴⁷ which concentrates on getting a constructive dialogue going between the representatives of the different disciplinary standpoints involved. The key to success, they argue, is to avoid coming up with shared meta-criteria for judging the worth of a piece of work (and we have some experience of this in healthcare) and to focus instead on a common agenda of dialogical themes:

'[The aim should be to identify and discuss] themes that could be relevant across various traditions of research, not to propose the best criteria according to one specific paradigm or research tradition... The solution rests on the notion of having a shared agenda (for reflexive dialogue) rather than shared criteria (for rule-

*based judgement)... Unlike criteria, an agenda may embrace pluralism, and does not request consensus on ontological, epistemological, and methodological issues, only consensus on what themes warrant discussion.'*⁴⁷

I believe their work would reward further investigation in relation to future contextual research and practice, even using the questions we are now asking in this paper as the basis for an initial dialogue.

4.3 How does the process of interpreting and taking account of 'context' work in an everyday practice sense in healthcare interventions?

This question (which flows from taking a constructionist line) refers to all three levels of individual, group and organisational sense making. Another way of putting this is 'how do individuals and organisations attend to and experience context when they are embarking on an improvement intervention?' – something we still know precious little about. For example, drawing upon Selig Perlman's classic work on the Labor Movement,⁴⁸ when people 'look out' on their context do they perceive an **abundance of opportunity** or a **scarcity of opportunity**? This is of great practical interest because we know that their view of their context will determine how willing and prepared they will be to take action. Perlman found (not surprisingly) that the more senior people are positioned in a society or organisation the more they see an abundance of opportunity – the world as their oyster. This has implications for mobilising people behind an improvement effort, in terms of who takes the initiative and how one is to activate the 'masses', who may view context in a very different way as threatening and limiting and on the basis of this decide not to participate. This situation is not dissimilar from Seligman's⁴⁹ 'learned helplessness' and a major reason why fewer than 25% of people ever participate in an organisational change project and why the majority choose to remain as bystanders throughout. Getting people to see context in a more 'abundant' opportunistic way thus holds one of the keys to successful interventions, this being a theme that runs through the 'change' work of many writers, from Paolo Freire⁵⁰ (the role of education being to raise the consciousness of ordinary people of what can be achieved by them) to Daryl Conner⁵¹ (engendering an optimistic/glass half full bias in prospective change agents).

The recent work of the positive organisational scholarship (POS) writers and their Centre at the University of Michigan could also be of help in getting researchers and practitioners to approach context in an optimistic and vital way, reversing a long-standing trend of seeing and talking about it in terms of barriers and constraints rather than opportunities.⁵²

4.4 Through what mechanisms, processes and practices does context express and impress itself on healthcare practices in general, and improvement practices in particular?

As already said, we use the term contextual or environmental ‘influences’ and ‘determinants’ all the time, yet still know precious little about the mechanisms or processes through which these are expressed and come to impact on thought and practice. This is the ‘how’ question that needs to be addressed in any future ‘contextualised’ healthcare research. Multiple disciplinary avenues remain open to be explored in relation to this question. For example, anthropologists – linguistic anthropologists in particular – say that context makes itself felt through everyday language and interaction, in other words it is not ‘out there’ but part and parcel of the routinely enacted ‘inner’ discursive life of the society or organisation, with the focus on verbal communication and exchange.^{53,54}

4.5 How does one acquire the necessary skills in ‘reading’ complex contexts as the precursor to constructing intelligent interventions?

In short, how do we get better at ‘reading’ complex contextual situations? In their book in which they challenge the assumptions behind evidence-based practice, Gabbay and le May⁵⁵ (chapter 5) refer to this as ‘cultivating contextual adroitness’.

‘We have explored how mindlines develop as a clinician moves from being a novice to becoming a “contextually adroit expert”. Our analysis, which relies on our own ethnographic observations as well as a critique of the existing literature, points to the crucial relevance of “knowledge-in-practice-in-context”. In any given context, new information, whether tacit or explicit, becomes transformed by the complex

social processes described in the SECI spiral (Socialization, Externalization, Combination, Internalization) that enable clinicians to amalgamate it with other relevant knowledge before using it. Information from research, education or other formal sources becomes practical knowledge only after that social process.’

At the heart of cultivating contextual adroitness lies a necessary shift in mindset from simple linear cause–effect chains-type explanations to complex, holistic, cross-level, systems explanations. This is the notion of context as a configuration or bundle of stimuli, in which factors mutually influence each other in ‘deadly combinations’ or powerful ways,³ creating upward or downward change and influence spirals.⁹ As Rousseau and Fried remind us:

‘A set of factors, when considered together, can sometimes yield a more interpretable and theoretically interesting pattern than any of the factors would show in isolation.’⁵⁶ (p4)

The kind of mindset they are thinking of calls for a naturalistic, complex, open-ended, multi-level process- (as opposed to variable-) centred, longitudinally inductive form of inquiry, which understandably will pose a formidable challenge for those brought up in the very different randomised controlled trial (RCT) ‘omitted variables’ kind of tradition.

4.6 Can context be measured and quantified?

Most of this paper has been about qualitative methods and approaches to context, but it still behoves us to ask whether context can be measured or quantified in any way, and if so how? For example, is it possible to quantify the relative influence and importance of contextual factors within the total system (and their effects), and attach some kind of weighting to the factors, processes and interactions involved? Clearly, it would be of huge benefit to practitioners to know which are the dominant factors that need the greatest attention, and where the gaps or problem areas are, and to have some sense of the degree of impact a contextually focused intervention is likely to have at different intervention points. Qualitative researchers may be good at describing context, but a true understanding of it can only come from better measurement. More ambition is needed here, one role model being

astrophysicists who not only seek to photograph and describe the universe but also to measure and quantify the phenomena they are observing.

Although, the measurement of human systems, processes and contextual effects is still in its infancy (as opposed to the sophisticated measures we find in the traditional variables paradigm) there are several promising areas that might reward further investigation. One such area is the long-established Soft Systems Methodology devised by a team (led mainly by Peter Checkland) from the University of Lancaster during the 1960s and constantly refined and developed since then (see the excellent Wikipedia overview under 'soft systems methodology' but also Checkland and Scholes⁵⁷ and Checkland and Poulter⁵⁸). Space and time do not permit detailed exploration of this method here but its attractions may be summarised as follows:

- It lends itself particularly well to dealing with complex situations, like improving healthcare delivery (specifically mentioned by its protagonists).
- Despite the label, it deals with both the soft and the hard aspects of system and context.
- It offers a step-by-step approach to diagnosis and change, and uses methods that anyone can follow and use.
- Given its roots in operations research, it has always had a strong quantitative vein running through it (a welcome antidote to the 'fuzzy' thinking often found within the qualitative research camp), especially latterly in methods such as *Multiview* and *Logico-linguistic modelling*, which are grafted on to established software engineering methods and use all kinds of computerised measurement to achieve their goal.
- The method is participative, coming as it does from Lancaster's strong action research traditions, which means that it has always been trying to gear itself up for the challenge of changing and improving practice.

Another fertile area for our attention is social network analysis techniques,^{59,60,61} especially the work of RAND anthropologist Gerry Ryan,⁶² and *NetDraw* graphics and computer techniques^{63,64,65} that we have used in our research. These, as already said, were adapted and used to compare and analyse our in-depth QI case studies in nine healthcare systems in Europe and the US (chapter 10 in particular).⁹ The purpose of these techniques was

to try to visually represent the system interconnections between our six organisational contexts and two inner and outer contexts (not least to give a snapshot picture rather than having to plough through page after page of case study material), and using quantitative methods, to show the relative strength of each in accounting for the effectiveness and success of the QI programme. An example of one of the maps is reproduced above (Figure 10).

Although there are many problems still to be ironed out, this research string shows that it is indeed possible to model, measure and quantify various contextual factors and to combine this particular kind of quantitative approach with the ethnographic qualitative case studies so beloved of anthropology and organisation studies. Certainly, we believe there is enough here to encourage organisations like the Health Foundation to put combined, synthetic qualitative–quantitative approaches to context at the centre of its call for research proposals.

4.7 The implementation question: how are we to 'manage' context?

A knowledge and understanding of context is one thing but doing something about it in terms of leading and managing it (Weick's notion of 'enacting one's environment' – acting towards and upon context as opposed to merely reacting to it) is quite another. This is the 'know how' question, which needs to be focused on to a far greater extent in healthcare research and organisational development. Reframed, the question is: what is contextual management and leadership and what does it involve? An excellent introduction to this topic can be found in the special issue of *Human Relations* entitled 'The context of leadership'.⁶⁶

Pettigrew gives an overview of the task of what he calls 'fashioning context' (ie managing context), the first aim being to move it from the periphery to the centre of one's attention:

*'A group interested in creating change must itself attempt to fashion a social context in which it can survive and prosper... Context is then being treated neither just as descriptive background, nor as a source of opportunity and constraint for change, but as something which must be accessible and understood by the innovating group, and ultimately mobilised to achieve practical effects.'*²¹

This is where leadership comes in. The role of the strategic leader, says Pettigrew and others, is to fashion or cultivate the inner and outer context of the organisation or micro-system in order to liberate, enable or mobilise change – in short to construct a receptive context for change. Smelser’s⁶⁷ phrase for this is creating ‘structural conduciveness’ while Unger⁶⁸ talks about creating a ‘formative context’ for change and improvement to take place. There is an important subtlety to this, in the suggestion that the role of the leader is not to ‘create’ change/improvement or try to ‘make’ change occur as such, but to create sufficient contextual resilience for change to naturally emerge and grow – contextually enabling conditions for generative change. Whereas all the aforementioned authors in this paragraph have put the emphasis on political context, other writers like Karl Weick³³ have widened this out to include social, organisational, cultural and social psychological contexts.

Also, as previously mentioned, Weick puts sense making at the heart of the leadership challenge, and equally the collapse of sense making as the cause of most organisational failure and disaster.

Many different ways of helping leaders and managers become more attentive to, aware and mindful of context have been suggested. One of the oldest and most popular in organisation development and change management is Kurt Lewin’s ‘force field analysis’⁶⁹ which proposes that a change/improvement diagnosis and intervention needs to focus on identifying and reducing the ‘constraining’ contextual forces (the blockages, impediments or negative forces) and, at the same time, increasing the ‘enabling’ forces (drivers, attractors, or facilitating forces). Lewin offers a very simple model for doing this, which has the advantage of heightening people’s awareness of their context and how it works as an important precursor to taking ‘adroit’ action.

One fundamental ‘management of context’ question that will need to be addressed is whether the task needs to be one of ‘fitting’ the QI programme to its context, as one would seek to find the right key for a particular lock or a bespoke suit for a particular sized person (the notion of context as ‘good guy’), or attempting to conquer and transcend a context that is seen as blocking or impeding progress (context as the ‘bad guy’). There is no clear-cut answer here: ‘contingency theorists’⁷⁰ say the question is always about getting good fit between

the organisation and its context, whereas ‘movement theorists’ say this approach is inherently conservative and cautious, since the real task is to transcend context (get above the clouds and fog) and get second order, transformative change, not the first order incremental change so beloved of contingency theorists. This has obvious implications for QI leadership, and raises the perennial question – are we looking for transactional or transformational context leadership? As usual the pat answer must be ‘both’, but unfortunately it leaves us with absolutely no idea about what this means in terms of change methodology or the practice aspects of the leadership process. Clearly the topic of ‘leading context’ requires a good deal more investigation, hopefully freed of some of the well worn dichotomies (such as transactional/transformational) that have dominated the field for too long.

5. An additional question: what methods and designs should we be using to study context?

Johns proposes several essential elements of context-oriented research.³ He suggests that researchers must:

- do cross-level comparative research in order to examine how higher-level situational factors affect lower-level behaviour and attitudes^{71,72}
- study processes over time to appreciate how context affects their development and direction
- study events to show how these affect attitudes and behaviour (to take an extreme example, an occurrence that was obvious anyway but is still illustrative, New York work absenteeism went up after the 9:11 terrorist attack)
- do qualitative research:

‘Well-conducted qualitative research has great potential to illuminate context effects, for at least two reasons having to do with circumventing the omitted variables problem. First, alert qualitative researchers can be sensitive to the full range of discrete contextual levers (and their interactions) that might affect behaviour in a studied setting. Second, they can be sensitive to the full range of behaviours and attitudes that context might affect, often “working backwards” to make inferences about the situation.’³ (p402)

- do measurement and analysis:

‘One way to both detect and appreciate context effects is to measure multiple dependent variables or to measure dependent variables different from the norm in a particular research area. The exact logic for doing this would vary from study to study but should be grounded in good theory.’ (ibid)

Most academics seem to agree that the case study method offers one of the best routes to contextualised explanation and practice^{73,74} (see also the *Handbook of Qualitative Methods for International Business*⁷⁵). Furthermore, Rousseau and Fried⁵⁶ suggest comparative case studies as an effective way of illuminating context, as do Bate et al.⁹ Obviously, this places the emphasis fairly and squarely on qualitative research, although Bate et al.⁹ also attempted to show that narrative methods can be combined with quantitative formal mapping techniques to reveal different facets of the interconnection between organisational and contextual factors.

Bate and Robert⁷⁶ identified a number of qualitative methods that they believe would assist contextual analysis (see especially chapter 8). Interestingly, most have roots in anthropology and ethnography – fields that are under-represented in healthcare and QI research – the implication being that the kind of future contextual research we have in mind might also benefit greatly from a parallel ‘anthropological turn’, especially given the fact that anthropology was virtually created to study socio-cultural contexts, and in rebellion against the linear, variables approaches used in science. Examples of such methods include:

- using informants (pointers to which part of context is important)
- ethnographic interviewing (context as seen through the actors’ eyes)
- participant and user interactive observation (seeing context with one’s own eyes)
- maps, photographs and videotape (obviously good for immediate physical context such as the design of a clinic; anthropologists always began here when entering a tribe)

- storytelling (as patients and staff tell their stories we hear first-hand about the context as they experience it; the stories reveal what is significant, relevant and impactful to them. Therefore, we are not put in the hopeless situation of trying to judge and evaluate them for ourselves. See Randolph Hester’s story of Manteo in chapter 8 of the Bate and Robert book⁷⁶ for a model example of how to use contextual inquiry and narrative-based methods)
- focus groups and listening labs
- contextual inquiry.

As the label suggests, ‘contextual inquiry’ is a method that would certainly reward deeper investigation as part of any future initiative, particularly with the bonus of the (as yet untapped) high quality literature that has been written on the subject.^{77,78,79,80}

Using key informants and guides to help do a preliminary ‘recce’ of the area is only part of the bigger activity of carrying out a thoroughgoing ‘contextual inquiry’. In a contextual inquiry:

‘... an experienced interviewer observes users in the context of their actual work situation, performing their usual job tasks... Conducting a contextual inquiry normally involves a team of two, an inquirer and a note-taker/observer. The inquirer and the participant are equals; each is an expert in his or her own work. After the visits, the inquiry team reviews their notes and analyses the information to find patterns, often using affinity diagrams. Contextual inquiries yield rich data from seeing users in their real work context, and thus can identify issues not previously recognised.’⁸¹

According to Raven and Flanders,⁸⁰ contextual inquiry is based on the following three principles:

- data gathering must take place in the context of the users’ work
- the data gatherer and the user form a partnership to explore issues together
- the inquiry is based on a focus; that is, it is based on a clearly defined set of concerns, rather than a list of specific questions (as in a survey).

Contextual inquiry is necessary for two reasons: the first, already mentioned, because meaning and action can only be rendered intelligible in relation to the context in which they occur, indeed are shaped by it ('context' being the commonplace, familiar and everyday world in which people live); the second, because one important consequence of doing contextual inquiry is that the improvement designer is able to help people begin to 'see the familiar in unfamiliar ways':

*'[Designers] look at what is commonplace and familiar, and they reveal the ways in which it is unique, allowing them to break through existing assumptions and acceptance of things as "the way it's always been done" so that new opportunities for change can be explored.'*⁸²

Contextual inquiry has also started to make inroads into the electronic and cyber context of organisations. For example, being given access to a person's email now makes it possible for designers to gain a deep understanding of the work context in which that person's communicative practices are situated and embedded. Most of this recent work is quantitative, illustrating yet again the need to look for contextual methods that draw on both ends of the scale. Therefore, this is another important area that would benefit from focused research.

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