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Patrick M. Dawson
University of Wollongong, patrickd@uow.edu.au

D. Buchanan
De Montfort University, UK

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Abstract

Corporate narratives concerning technological change are often constructed around a linear series of events that show the organization in a positive light to internal and external observers. These narratives often sanitize the change process, and present data from which commentators can formulate neat linear prescriptions on how to implement new technology. In contrast, this paper draws on processual-contextual theoretical perspectives to argue that technological change is a more complex political process represented by multiple ongoing narratives which compete with each other for dominance as definitive change accounts. A central aim of this paper, therefore, is to demonstrate the analytical significance of identifying and unpacking the multiple frameworks of interpretation that are utilized in organizational struggles over technology and change at work. Understanding how change narratives are managed highlights political processes, and draws attention to the ways in which power is exercised through the construction of tacit explanations. The paper thus argues for the more widespread use of the concept of competing narratives in theories that seek to explain the process of technological change from contrasting perspectives.

Keywords

change, narratives, politics, processual, technology

Disciplines

Business | Social and Behavioral Sciences

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Behind closed doors: competing narratives in the political process of technological change

Patrick Dawson

University of Wollongong
School of Management and Marketing
Faculty of Commerce
NSW 2522
Australia

Tel: + 61 2 4221 3703

Fax: + 61 2 4221 4289

patrickd@uow.edu.au

David Buchanan

De Montfort University
Department of Human Resource Management
Bosworth House
The Gateway
Leicester, LE1 9BH, England

Tel: + 44 (0) 116 257 7208

Fax: + 44 (0) 116 2571 7548

d.buchanan@dmu.ac.uk

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Behind closed doors: competing narratives in the political process of technological change

Abstract

Corporate narratives concerning technological change are often constructed around a linear event sequence that presents the organization in a positive light to internal and external observers. These narratives often sanitize the change process, and present data from which commentators can formulate neat linear prescriptions on how to implement new technology. In contrast, this paper draws on processual-contextual theoretical perspectives to argue that technological change is a more complex political process represented by multiple versions of events which compete with each other for dominance as definitive change accounts. It also calls for an analysis of narratives over time (before, during and after change) in seeking to demonstrate the analytical significance of identifying and unpacking the multiple interpretive frameworks that are utilized in organizational struggles over technology and change at work. These struggles draw attention to the ways in which power is exercised through the construction and management of compelling stories that shape change. It is the contribution of these stories (competing narratives) to understanding the political process of technological change, that is the focus of this article.

Key words: technology, change, politics, narratives, processual

Introduction

The implementation of new technology is typically described in prescriptive literature as a rational-linear process, which has been the subject of criticism for some decades (McLoughlin, 1999: 69-88). Anecdotes and stories are often used to support ready-made solutions in which political process is often downplayed or ignored. In contrast, more critical studies draw attention to political processes in the management, organization and social shaping of technology (Knights and Murray, 1994; MacKenzie and Wajcman, 1985; Wilkinson, 1983). We seek to demonstrate the more complex relationship between organizational narratives, as significant carriers of knowledge and understanding (Czarniawska, 1998; 1999) and political process, in the way these narratives variously struggle against each other in offering contrasting accounts of events (Dawson, 2000), in shaping the outcomes of technological change. We are thereby interested in competing versions of reality and in uncovering stories that remain locked beyond public view through the power plays of key actors, and the embedded constraints of hierarchy and function, and the complicity of researchers.

When competing narratives are uncovered and ‘voiced’ they shed light on and expose the limitations, prejudice and socio-political process through which stories are constructed and particular positions and versions of events corroborated. It is in developing our understanding of the importance of narrative to the political process of technological change that this paper aims to develop new insight. In so doing, the paper begins with a discussion of technology and political process. This is followed by a discussion of the theory-laden nature of narratives. We seek to demonstrate how the creation and maintenance of dominant narratives provide rational linear accounts that highlight simple causal links which can then be moulded into ‘recipes for

success' in managing technological change. After discussing the limitations of the data that underlie this recipe approach, attention is given to the influence of predictive, on-going and retrospective change accounts and the ways in which compelling stories may be scripted for particular audiences and utilized as powerful political tools in shaping change. We conclude by calling for the recognition of the need to analyse competing narratives (over time) in the development of interpretive frameworks for explaining the process and outcomes of technological change, rather than attempt to triangulate such competition out of the data stream. Such incorporation relocates the researcher as yet another narrator of case study narratives, and also repositions change agents as the authors, scriptwriters and casting directors of technological change.

Technology and the change process

The seminal work of Noble (1979) on the uptake of automatic machine tools highlights the importance of political decision-making in the uptake of new technology (see also, Wilkinson, 1983). His central argument is that how technology (in this case CNC) is used in a plant is less dependent on the inherent nature of the technology, than upon 'the relative power and sophistication of the parties engaged in the struggle over control of production' (1979, p.49). In this example, the use of skilled programmers in a distant office was chosen in favour of operator programmability (where the machinist took the tool through its paces while being recorded for playback), as this reduced management dependence on craft skills in relocating these tasks with a salaried and more compliant white collar staff.

Pettigrew also argues that political behaviour is a core feature of large-scale investments in technology, and stresses the importance of relating past actions and attitudes to present behaviour and future expectations in order, 'to describe and explain the decision-making behaviour in the context of a social structure and a technological environment' over time (Pettigrew, 1973, p.227). However, Knights and Murray (1994, p.183) in adopting a political processual perspective criticize Pettigrew's (1985) tendency to accept management strategy as unproblematic and apolitical:

Another sense in which our perspective differs from but contributes to a processual approach is in recognizing how technology and the market can be constructed by practitioners as either externalities over which the organization has little control or as open to negotiation internally. It is these constructions to which the strategic and the processual approaches respectively respond but, in so doing, they take a particular management interpretation as given and thus reproduce it as reality, rather than reflect critically upon its power-infused construction.

In the processual perspective adopted here, the centrality of political process is emphasized both in terms of the career interests and political negotiations of actors and the political process by which worldviews are formed and dominant narratives are created and maintained in shaping change outcomes (Buchanan and Badham, 1999). History and context are central to this approach, which recognizes that history may be rewritten to service current political aims and to shape perceptions of future possible outcomes (Dawson, 2003a). It is not simply action, but the understanding and interpretation of actions through the social process of history formation which may present structural constraints which, because perceived as real, are real in their consequence in shaping future actions and interpretations (Child, 1997). Orlikowski (1992) describes this form of reciprocal interaction between agency and structure in

terms of a 'duality of technology', whereby structural constraints are not fixed, but are open to reinterpretation within an ongoing political process.

A constructivist perspective draws attention to the diversity of actor interpretations and how these may influence our perception of technology (Bijker, 1995). In examining the development of the bicycle, Pinch and Bijker (1987, p.40) show how the 'political situation of a social group shapes its norms and values, which in turn influence the meaning given to an artifact'. In this approach, there is 'interpretative flexibility' in the way new technologies are developed and designed. Drawing on the example of the pneumatic tyre, Pinch and Bijker demonstrate how, by redefining the innovative tyre from a vibration solution (where it was considered an aesthetically unsavoury accessory), to a speed solution (where it was successfully mounted on a racing bicycle), the sports cyclists and general public were convinced of its feasibility, resulting in 'closure' and 'stabilization' through the 'disappearance' of 'problems' (Pinch and Bijker, 1987). Grint and Woolgar (1997) develop this argument further in their onion model of the sociology of technology, arguing that the capacities and representations of machines are not objective reflections, but social constructions (the machine always 'appears cooked and never raw') and that 'even at the very centre of the onion, then, we would argue that there is no residual technical core which is in principle impervious to social analysis' (Grint and Woolgar, 1997: 164). The technical and the social are thus entwined in a mutual shaping process.

In this mutual shaping perspective (McLoughlin and Dawson, 2003) no attempt is made to draw clear distinctions between the social and the technical. In recognizing that the social and technical are blurred and shift over time, this perspective supports

the notion of interpretative flexibility, adding that the manner in which technology is viewed is part of a political process, as competing interpretations respectively serve to support and challenge vested interests, preferences, and power positions. Establishing and maintaining a common view on the purpose, use and application of technology are thus components of a political process which may serve to limit thinking on the choices and alternatives in the uptake and design of new forms of work organization. As Kamp (2000) has shown, alternative views may remain closed and hidden under established shared systems of meaning in which the relationship between technology and organization may appear to be rigid. Thus, choice of technology cannot simply be regarded as a functional imperative for system survival needs, although this potentially compelling argument may be used to support the decision to purchase a particular technology. This is particularly noticeable in the case of production machinery, where technical and engineering constraints may be presented as given structural features not amenable to change. The scripting of compelling stories are therefore central to understanding the process of technological change as these stories influence the views of key strategic decision-makers and as such, deserve our analysis and attention.

Narrative and the authoring process

From detailed analyses (Pettigrew, 1985), to descriptive accounts (Reisner, 2002), narratives are widely used as vehicles for reporting organizational life. The theoretical motor behind these reports often lies elsewhere, and narratives themselves have rarely been subjected to scrutiny as evidence in their own right, as narratives in any form, especially fictional, mythical or apocryphal, are suspect as valid sources of knowledge. However, Putnam, Phillips and Chapman (1996, pp.386-7) argue that:

Narratives are ubiquitous symbols that are prevalent in all organizations. Also referred to as stories, scripts, myths, legends and sagas, narratives are accounts of events, usually developed chronologically and sequentially to indicate causality. [. . .] They are the vehicles through which organizational values and beliefs are produced, reproduced, and transformed. They shape organizational meanings through functioning as retrospective sensemaking, serving as premises of arguments and persuasive appeals, acting as implicit mechanisms of social control, and constituting frames of reference for interpreting organizational actions.

Several commentators argue that narratives are a significant source of personal and collective sensemaking, and of valid scientific understanding in their own right (Czarniawska, 1998 and 1999; Boje, 1991 and 2001; Gabriel, 2000). What is the rationale for these claims? In addressing this question, we will use Czarniawska's (1998, p.2) terminology: 'A narrative, in its most basic form, requires at least three elements: an original state of affairs, an action or an event, and the consequent state of affairs'. Czarniawska also notes that narrative plots rely on human intentionality and context, and are based on a chronology - this happened first, then that happened next. Narratives, by definition, thus link antecedent (or antecedents) with action (or a sequence of events, or a process), with consequence (or pattern of outcomes). A statement which links systematically antecedents with consequences is an explanation, a statement of causality, or a theory. Thus, 'our company was losing money, we introduced a new information system, we are now profitable'. Here is a simple explanation for one organization's return to profitability, pointing to a general theory linking organizational effectiveness to management information systems. Narratives can thus be regarded as theory-laden, expressing causal relationships and providing explanations. However, depending on authoring style, the theoretical luggage which a narrative carries may not always be transparent. Even brief descriptive narratives of technological change develop implicit, if simplified,

theoretical accounts relating antecedents, processes, and outcomes in given organizational contexts. Such theories may have local explanatory power, and may also be amenable to naturalistic generalization (Stake, 1994) and analytical generalization (Tsoukas, 1989; Yin, 1994), if not to statistical generalization. The contextual properties of narrative are thus also highly significant.

The theoretical content of narratives is not dependent on the status of the author, although narratives of technological change written by academic researchers, change agents, and senior managers, tend to be privileged in this regard. As already indicated, and in spite of the preceding observations, the explicit contribution of narrative theory to processual-contextual perspectives has been largely unexplored. Process theories, based on a primarily inductive interpretivist epistemology, attempt to understand ill-defined flows and patterns of action in specific organizational contexts, characterized by untidy, politicized and iterative change processes driven by a range of actors or stakeholders, using a combination of multi-level, longitudinal, qualitative data from multiple sources (Langley, 1999). Variance theories, in contrast, tend to be based on a primarily deductive, hypothesis-testing positivist epistemology, and seek to establish relationships between clearly operationalized variables (see, Mohr, 1982). Although the dimensions of this debate are beyond the scope of this paper - and this contrast may be considered a caricature - it is important to note the broadly differing notions of 'causality' and 'theory' in these perspectives. Processual interpretivism seeks to establish how naturally occurring factors and events, at different levels of analysis, interact to influence observed outcomes over time in a particular context, or category of context. Covariant positivism prefers quantitative data, exploring interrelations among a restricted, controlled, and well-defined set of

variables, reaching for universal claims about the causal effects of independent on dependent variables.

Process theories thus adopt a less tightly defined and more complex concept of causality, which can be equated with the contextualized and temporally sensitive expressions of causality conveyed by narrative. With respect to organizational change in particular, Pettigrew (1985; Pettigrew, Ferlie and McKee, 1992; Pettigrew, Woodman and Cameron, 2001) and Dawson (1994; 2003a) argue that change has to be understood in terms of the multi-level interactions between change substance, context, implementation process, and organization politics over time. Their case study accounts typically offer rich narratives of change processes in which the organizational context, the motives and actions of the main characters, and the sequence of events (or plot) combine in the construction of finely textured explanations for the unfolding patterns of outcomes; it is important to note that there are no processual explanations which attempt to relate *a* particular change initiative with *a* single indicator of organizational effectiveness, or clusters of changes to defined patterns of outcomes. Process theorizing has also been applied more widely with, for example, Langle (1999) identifying a range of inductive strategies for analysing and interpreting process data, and Pentland (1999) exploring narrative data in general as a basis for the development of process theory. We would argue therefore, that process-based narratives could potentially generate unique and distinctive insights into technology change.

Unlike other modes of organizational change, there is a materiality to technology and as such, explanations often get caught up with either the ‘ghost’ of technological

determinism, or travel a painful course in the avoidance of any ‘determinist’ label. But it is this materiality of technology that leaves it open to the scripting of compelling narratives that are less resistant to challenge and subversion. Stories of causality can appeal to the technical capabilities of the machine –things happen this way because that is how the system works – knowledge and expertise are thereby mobilised in narratives of functionality and design specification that undermine alternative frames of interpretation. In seeking to provide explanations that cannot be labelled ‘determinist’, researchers may unknowingly downplay, criticise or ignore powerful ‘determinist’ narratives that shape change. These ‘unenlightened’ views may variously be criticized for their simplistic understanding of technology or for their misunderstanding and appreciation of social processes and yet, these compelling narratives are often not neutral accounts but attempts to steer change in certain preferred directions. We therefore contend that analysis of narratives and political process is likely to provide unique insights into the design, implementation and use of technology at work.

Multiple voices in the construction of contested realities

Within organizations, there are often a number of competing narratives on the process of technological change and these narratives may be further refined, replaced and developed over time. The dominant or ‘official version’ of change may largely reflect the political positioning of certain key individuals or groups within an organization, rather than serving as an accurate account of how the change in technology took place. These oral and sometimes documented histories, may also act to shape, constrain and promote the direction and content of future decisions on the purchase and implementation of technology. In providing chronological descriptions of flows

of events these narratives also act as implicit process theoretical statements, if not always deployed explicitly in theory-building. Although most accounts of the introduction of new technology strive for 'accuracy', it is necessary to address the repeated observation concerning the co-existence of competing and inconsistent narratives of the same sequence of events. What becomes of the case for narrative as theory-laden, if narrators cannot agree on what happened? Attempts to construct the 'one true' narrative are thereby compelling, as few readers wish to be left asking, 'but what *really* happened'. A convincing account can thus defeat other versions, and such accounts are often designed and presented such as to achieve precisely this aim. As Czarniawska and Sevón (1996, p.37) explain, 'our story is about change and therefore about ideas which succeed, it is worth mentioning here that a ruling paradigm has a deadly power to reject ideas which are perceived as challenging it'. A compelling narrative is more than just 'a good story'. It is a device for cementing a particular interpretation of events, and can thus be a vital resource in the political arena of organizations where prizes include influence, status, and advancement. Establishing your version of reality can cause collateral damage to the accounts of rivals, which are thereby discredited, and delegitimized, weakened along with their authors.

Whilst the compelling story of what really happened may dominate accounts, it remains one of a multiple number of narratives that co-exist and compete to be heard.

As Buchanan (2003) argues:

The notion of one unitary, accurate, authentic account of the change process and its outcomes is a delusion. Acts of 'account giving' are politically charged. Claims to the 'official' or 'accurate' account of

strategic change and its consequences must therefore be treated as partisan and suspect.

The concept of ‘multiple narratives’ is therefore useful as it accommodates diversity whilst recognizing that the political process of change is not a level playing field. In scripting *the* story and agreeing how the uptake of technology was managed, powerful groups and individuals often reinforce positive elements of their own involvement and downplay, suppress or ignore those elements which are seen to represent ‘minor disruptions’ to an otherwise ‘successful’ programme. It is easier to agree with and to support a positive story of success than one that might question the decision-making of certain key players. The narrative once agreed is continually replayed (often with minor modifications). Paradoxically, these managed accounts can be drawn on later as a body of practical knowledge to inform future change initiatives. Given the limits of such data, the paucity of recipe models is perhaps not surprising. This aside, the authoring of the change script and the process by which key players agree (in creating and sustaining a dominant narrative) is a central element to understanding technological change and remains an area in need of further research. In the section that follows, the relationship between narrator and audience is briefly examined through a critical analysis of the process of scripting stories and compelling narratives.

Scripting stories for political purpose: narrator and audience

The multiple narratives of technological and organizational change are generally derived in three distinct, if overlapping, domains, namely: senior organizational actors, other organizational actors and stakeholder groups, and the researcher cum academic author. On the first of these, research evidence documents accounts of

change processes that are produced by *senior organizational actors*, such as chief executives and change agents. Typically these are clearly authored in a ‘public relations’ style, tailored to particular internal and external organizational audiences. These ‘official’ narratives may alter with time, as events unfold and as fresh information comes into the public domain, and may be adjusted to accommodate different audiences. An example of this arose in a longitudinal study carried out by one of the authors into the development and use of technology in restructuring a manufacturing plant. The ‘lessons’ and ‘outcomes’ of this change were promoted to a wider business audience. In this case, the change champion constructed a narrative of change that not only highlighted the ‘success’ of change but also, the benefits of a particular technology that had facilitated this process. The technology in question was designed and developed by a collaborative partner and an agreement had been established between the project leaders (representing the two companies), that they would support each other in presenting a unified public account. For example, although all parties agreed that the change had resulted in savings there were a range of different numbers generated; as a collaborator commented: ‘Depending on who you believe, whether you believe their numbers, Arthur Anderson’s (a consulting firm) numbers, or our numbers, the saving is somewhere between 1.2 and 2.1 million dollars per annum.’ The agreed public narrative of change - which stated that savings of over 2 million per annum had been achieved - was relayed on a number of occasions through a series of formal business presentations.

These presentations stimulated further commercial activity through raising more widespread company interest in the technology developed by the collaborative partner whilst also raising the profile of the host company (the Australian operation of a large

American multi-national corporation). Senior management plant visits from other operating sites worldwide further endorsed the 'success' story of change. So much so, that the senior executive of the manufacturing complex in question, decided that he should present the results of this programme at an international business meeting. The change champion and one of the authors – who at the time was researching this company – were asked to attend a meeting with this senior executive and assigned an assistant to help prepare a presentation. Understandably perhaps, the emphasis was in further raising the company profile through recounting a 'success' story that showed the company in a positive light. Although attempts were made to balance the presentation by inserting sections on employee concerns, technical reconfigurations and the tasks associated with tackling unforeseen problems, these elements did not form part of the final script. In both of these public accounts, a number of critical incidents, issues and problems were purposefully omitted. Not surprisingly, the stories told did not accord with observed operations, the experiences and accounts of workplace operators, nor other key stakeholder groups. For example, the union view differed significantly from this public account. Nevertheless, this public story was clearly influential not only in raising the company profile but also in influencing others in their decision to utilize the technology developed by the collaborating partner.

The second domain from which our multiple narratives and conflicting accounts arise are from *other organizational actors* and *stakeholder groups*. These narrators interpret change from their unique personal and organizational perspectives. Conflicting accounts may simply reflect differences in assessment and as such, might be expected. However, conflicts may also arise from different understandings of

‘factual’ details concerning the flow of events that might be regarded as matters of documentary record (Buchanan, 2003). It is important to recognize that these differing accounts are ‘real’ in the perceptions of respondents, that they are consequently ‘real’ with regard to their influence on actors’ understanding and behaviour, and that the contradictions which they encode cannot be methodologically ‘triangulated away’ by the diligent researcher. A simple example of different perspectives on change was provided in a second study of an Australian manufacturing company located in Adelaide (a far smaller company than our previous MNC example). Data collected during this longitudinal study highlighted multiple accounts and the emergence of competing group narratives at different hierarchical levels within the company. Representative illustrations, from three interviews, were:

Management interviews

We’re very much a work-together team...We’re heading towards being a world-class operation and our people will be world class too.

Supervisory interviews

They should tell the workers what is going on in the company and keep them informed about decisions. Information should go to all employees and not just supervisors and leading hands.

Employee interviews

It’s not like what you read in the papers. The managers get the limelight at the expense of the workers and they don’t give them sufficient recognition.

In collecting data over a two year period a number of repeat interviews were conducted and the resulting data illustrated how stories of change are often revised over time. For example, a number of interviewees re-scripted their accounts following a change in senior personnel. In the case of management, the incoming senior manager and his team revised what had previously been characterised as a ‘success’ as a major ‘problem’ that needed to be tackled. On reflection, if our study

had been of shorter duration, then the final case study write-up would have emphasised the important role of the original senior manager as a charismatic leader of change. However, by collecting data over time it is possible to chart the way a charismatic champion of change is recast as an incompetent manager shortly after his replacement. The creation of a powerful narrative was instrumental in achieving a reassessment of a major character of change and facilitating a movement from hero to villain. Our interest is not in the 'truth' of these conflicting accounts but in the importance of narrative and in the re-scripting of histories in justifying, directing, shaping and steering processes of technological change.

Another interesting example arose in the lens laboratory of an optometry business. The company had embarked on a major change programme and a number of employee issues and concerns stimulated management to circulate an anonymous employee attitude survey. The results of the survey indicated that there was a problem of poor communication between the shop floor and management. Senior management then set about improving communication channels from the shop floor by setting up a Workers Participation Committee (WPC). As a result, the voices of individuals and groups who were previously unheard suddenly had direct access to senior management. A number of individuals were able to secure positions on the WPC but soon, other individuals and groups who now felt powerless and unheard, indicated their concerns during a series of interviews conducted by one of the authors. This was especially noticeable among supervisors as a group and was also evident in the accounts of shop floor employees who had decided not to get involved with the WPC. In the case of supervisors, they typically felt that they were being bypassed and being forced into an extremely difficult situation. As one supervisor commented:

The only time you should raise an issue to the board that's going to be written up in the minutes is only when the leading hand has been notified, and managers say, 'We're not doing anything about this.' Then they've got the right to raise the issue. But they've got to give courtesy first to the leading hand and to the managers to handle that problem or issue that they've raised.

There was a view among some staff that concerns were no longer being raised with supervisors and that the WPC had resulted in a reduction in communication between supervisors and employees on the shopfloor. The WPC was viewed as providing a forum which served to erode the position of supervisor and in so doing, increased tension on the shopfloor. The WPC was also questioned by those not involved. It was argued that the committee was: too quick to accept single perspectives and views of problems; had too much decision-making power; and were proposing changes to workplace operations that were not necessarily for the best. In other words, the creation of the WPC (that would meet fortnightly and was chaired by the managing director) had raised the voice of WPC members whose narrative on key change issues differed from other employees and sharply contrasted with the views of supervisors. Whilst there are multiple and competing narratives it is generally the case that not all stories or perspectives are heard and yet as our example illustrates, those that are can have a powerful influence on decision-making within organisations.

The third domain is where the *researcher* and *academic* author their own case study narratives. In constructing a case narrative authors may variously foreground, background and overlook certain details, depending on audience and purpose. Researchers are not merely faced with the prospect of recording and interpreting multiple narratives of technological change; they are also intimately responsible for

authoring further versions of these narratives themselves. For example, the content and presentation of data are in part determined by whether the 'story' of change is being written for practitioners or case organizations, academic reviewers of journal articles, or to engage the imagination and interest of student audiences (see, Dawson, 2003b).

In presenting a case study as feedback to a participating organization, more attention may be given to descriptive or 'factual' information and timelines. In this sense, the researcher may act more as a chronicler of events that have taken place during programmes of change. Critical junctures and major decisions may be examined and reviewed in distilling out key lessons and a series of practical recommendations that can be made from the study. To achieve such distillation and prescription, the case chronicler typically must be extremely selective with regard not only to which details, junctures and decisions to document, but also to whose versions of events, whose accounts, or whose voices to give prominence. While such an external account may give the appearance of objective neutrality, decisions reached in the case authoring process render the chronicler a witting or unwitting partisan with regard to the internal politics of the organization and its change agenda.

A chronicle of events may do little to stimulate the interests of students, and therefore, in writing a teaching case, the researcher may reshape the material and combine the data in different ways to create an account which raises questions and issues that warrant further discussion and debate. Parts of the narrative (or 'critical data'), may be withheld to allow students to identify their own solutions before comparing what was done or what did happen, in a more interactive learning environment. In the case

of the refereed journal article, care is taken to ensure that research methods are clearly articulated and data analysis goes beyond ‘description’ with a more thorough integration of emerging conceptual and theoretical concerns. The case in this context is presented ostensibly to further our knowledge and understanding of the process of technological change. This again requires a selective authoring style, in which interesting details are omitted, while issues highlighting fresh conceptualizations, novel trends, unique insights and theoretical developments are covered in depth. In some scholarly outlets, authors are required to limit the use of primary data, and the reader/audience is consequently left with the processed outcomes of an opaque analysis, presenting a striking contrast with case publications that provide liberal amounts of illustrative data (see, Pettigrew, 1985; Dawson, 1994).

Just as the written case study reflects attempts to manage and respond to audience expectations, so do the narratives that are created and shaped within organizations by individuals and groups who seek to have their version of ‘reality’ accepted as *the* story of change. It is important, therefore, to recognize the significance of these relationships, how audience expectations can influence the creation of narratives and the authoring of case studies, and how power and politics are critical in elevating, downplaying and reshaping the ongoing dynamic landscape of technology and change in organisations.

Theoretical developments, methodological considerations and practical advice

There are a number of theoretical, methodological and practical issues that arise from our analysis and are in need of further consideration and research. Four that we wish

to discuss here are: the need to expose multiple narratives; the role of narratives as a political resource; the potential use of narratives in planning for technological change; and the need to encourage a greater attentiveness among audience and readers in adopting a more critical-interpretative stance to narratives that claim to provide the *real* story on the uptake and introduction of new technology at work.

1: unpacking the luggage: narrative exposure

Many large-scale organizational change projects are technology-related and represent a heavy financial investment, usually with the aim of securing future commercial benefits, service improvements or competitive advantage. Although there is now a considerable body of knowledge on managing change, it has been estimated that up to 70% of major change projects fail (Beer and Nohria, 1998). In many cases, concerns and doubts arising over large investments in technology remain unheard or ignored. To speak against such initiatives can result in a questioning of an individual or group's commitment to the organization. Alternatively, voicing such concerns can be viewed as a 'problem' of resistance that will need to be overcome. Through exposing narratives and openly listening to and assessing a wider range of views and opinions, the knowledge base on which decisions are made is broadened. Given the large sums of money spent on technological change programmes that do not achieve their original objectives, it is as important to know when not to change as when to change. Untapped knowledge and a broader critical assessment not only of the need to change, but of the choice and selection of technology, and the design and reconfiguration of technology in use, is an important potential practical contribution from an exposure and assessment of multiple viewpoints. In short, research into processes of technological change will be enriched theoretically and practically through explicit

attempts to identify, expose, and analyse competing narratives of change, instead of attempting to triangulate away those ‘annoyingly’ deviant versions of events. A fuller range of explanations on the nature and outcomes of change are embedded in these competing narratives. As such, they are not just ‘different stories’, but represent competing attempts to make sense of events and their consequences. The theoretical luggage in narratives of change can be unpacked, thus enriching explanatory accounts of change processes, and their consequent theoretical and practical payload.

2: narrative as political resource

Narratives, in this as in other social and organizational domains, cannot be decoded as objective, neutral accounts, relying on the credentials of their authors. The claim that, ‘the accounts of managers are biased, the reports of researchers are neutral’, is not sustainable. Irrespective of author, narratives are, or can become, political resources that serve to maintain and advance the positions of individuals and groups, while delegitimizing the accounts and positions of others. Narratives provide a particularly compelling and powerful tool not only for communicating meaning, but also for establishing the hegemony of a particular interpretation of, or perspective on, a sequence of organizational change events. As such, the story-telling skills associated with constructing a compelling and convincing account can be viewed as another power base that may often overlap with others, for example, in the use of expertise, and as such, is an effective political instrument for influencing others.

As our example illustrated earlier, narratives can be used to raise the profile of a company and to shape decision making on the purchase of technology. In our manufacturing example, data collected earlier in the change process drew attention to

the problem of gaining the financial commitment of senior management. Initial presentations made to the senior executive did not offer a compelling narrative and left the senior executive unconvinced of the need to invest money into manufacturing change at this particular plant. At this time, the potential collaborator agreed to develop a stronger presentation outlining the benefits (mainly through reduced costs associated with scrap, rework and speed of operations) and the main stages of change. This comprised: analysis of current manufacturing operations (3 months); design and development of an improved manufacturing system (6 months); development and installation of integrated production management system (12 months); and detailed hardware design and installation of new systems (12 months). A highly convincing and professional presentation was made to the senior executive that not only captured their imagination but also resulted in support and agreement on the sums available for financial investment in the plant. As already indicated, the crafting of a compelling story the scripting of narratives was later used to promote the 'success' of managing the change as well as the technology that had been developed by the collaborating company:

Part and parcel of that involved the next stage of preparing a scheduling system to allow the scheduling of one cell, which was the initial phase that we contracted for: creation of one cell and a system to schedule that one cell on the shop floor, and that gave rise to the mark one scheduling system, of which we saw the merchandisable product last week.

The place of narratives as a political resource should not be underestimated, especially during the process of technological change when employee concerns and anxieties are evident. Compelling stories can enable groups to influence decision-making and steer organisations in certain preferred directions.

3: narratives as tools in planning for technological change

The process of planning a technological change project can be interpreted as predictive narration. A sequence of planned events and key roles and responsibilities get narrated in advance, revised along the way, and then written up in different ways after completion. Conceptualising implementation planning as a predictive narrative requires a focus on organizational context, key players, the wider cast of characters, attention to employee motives and intentions, the narrative understanding of technology, the scripting of a planned flow of events (including anticipated issues and potential ‘problems’ as well as the intended pattern of outcomes). While this agenda clearly overlaps with a conventional processual-contextual research perspective, the focus shifts to the manner in which individuals and groups, influenced by other characters and narratives, attempt to further narrate key roles and actions. This agenda would draw, for example, not only on narrative theory, but also on the work of Shotter (1993; Shotter and Cunliffe, 2003), and Holman and Thorpe (2003), where language in general, and narrative in particular, is regarded not merely as a tool for representing social and organizational reality, but also as constitutive of our understanding of those contexts and associated processes. While from a theoretical perspective, it would be interesting to understand how technological and organizational change, and individual roles in change, are thus ‘scripted’ by others, it would be of practical significance to understand how to access, and to influence, those authoring processes with a view to altering the plot and outcomes of the narrative.

4: the critical-interpretative reader

A perspective linking narrative theory with processual theory places a unique burden on the reader of case accounts of technological change. The reader is no longer invited simply to absorb an interesting (we hope) account based on expert, neutral, objective research and observation. Instead, the reader has a second-order critical-interpretative responsibility, based on the observation that the presenting narrative has been authored, in a particular style, from a point of view, to influence or persuade an audience about the validity of a line of reasoning, explanation, argument, or thesis. The reader is required to switch from a passive-absorptive mode, to a more proactive-critical position, rather like an academic reading a colleague's paper. While most managerially and academically authored accounts of technological change implicitly ask the reader to accept without question the reported version of events, we argue here for a more open-ended accounting, which explicitly seeks to elicit criticisms, challenges, and alternative interpretations. Authors of technological change narratives are thus advised to indicate how their readers should approach, interpret, question, and use their work, both theoretically and practically.

Conclusions: is that the way it *really* happened?

There will always be a number of competing narratives of technology and change, each offering its own explanation of events and outcomes, framing a potentially unique, if local, theory of the technological change process. The temporal dimension to this process also draws our attention to predictive, real-time and retrospective narrations. The tendency has been to focus on narratives at a particular point in time rather than with a more processual analysis of narratives and their influence on change processes. As a vehicle of sensemaking, narratives of technological change are concerned with the way it's going to happen, and the way in which it is (or is not)

happening, as well as the way it happened. Written before the fact, pre-implementation, such narratives project event sequences into the future, setting out the story which aims to lead to the desired individual, team, and corporate outcomes. Narratives thus have a peculiar form of causal power, which is temporally ‘incorrect’, in that current understanding of future events (the predictive narrative) is used as an instrument to bring out (intended and preferred) future consequences. Authoring a business case for new technology investment is a critical element in shaping that process and the direction of future events. A powerful and influential story will be coherent, compelling, engaging, robust in the sense that it is resistant to subversion, and flexible in the way that it can be revised without threat to the author’s credibility. On a practical note, the change agent would be advised to consider written and oral, formal and informal, presentations in the light of those criteria, and also to consider the need and expectations of different audiences. Narrative construction in this respect has to take into account audience segmentation if it is to be effective as a ‘broadband’ influencing tool.

After-the-event accounts are also important. The evaluations of technology projects may further influence strategic decision-making and are likely to reflect political processes in which certain ‘voices’ get heard, while others are silenced or hidden. Unless these accounts are proactively maintained, they are likely to be modified, redefined or replaced over time as other competing accounts emerge. When competing narratives discover or are permitted a voice, they can steal through the night on a counter-cultural crusade, exposing the shortcomings of ‘official’ accounts which may thereby be derailed. These competing narrative may also be informed by future expectations, and as a consequence be open to further modification and

revision. The co-existence of multiple accounts of change, competing for the audience's attention and approval, provides insight, and is only deemed problematic in studies that seek to establish a singular 'authentic' account. While we have highlighted the power of stories, from a political process perspective, narrators are less interested in authenticity and are more concerned with the influence of their story. The compelling narrative is a major shaper of technological change and warrants investigation over time (before, during and after), rather than as a snapshot analysis at a particular moment of time.

In examining mutually negotiated narratives of technological change, it is important to consider the authors of change (including the various individuals and groups who attempt to make sense of change, as well as trade unionists, managers, change agents, external collaborators and researchers). As indicated, researchers are also authors of change narratives. Although the use of the narrative approach allows the author to capture some of the complexity and ambiguity of technological change, the researcher has nevertheless sifted, selected, and interpreted data in a way that is likely to reflect particular interests. Another researcher may produce a different narrative. In part, this is because researchers are not in a position to take themselves outside of this type of research, which requires significant periods of time, interviewing respondents and observing work activities and collecting documentation. Furthermore, the process of data analysis - which at its simplest requires the breaking open of individual accounts into multiple fragments that are then recombined to present a post-analytical case study narrative - is not independent of the researcher. The author's understanding of the expectations of the intended audiences shapes the subsequent account. The ghost of the reader is always present during the often lonely authoring process. The

researcher's narrative may thus be more closely equated with a creative, literary enterprise (Czarniawska, 1999), than with a neutral and objective academic one.

REFERENCES

- BEER, M. & NOHRIA, N. (1998) Cracking the code of change. *Harvard Business Review*, 1998, 78(3), 133-41.
- BIJKER, W. *Of Bicycles, Bakelites and Bulbs: Towards a Theory of Socio-Technical Change*. Cambridge, MA: MIT Press, 1995.
- BOJE, D. The storytelling organization: A study of story performance in an office-supply firm. *Administrative Science Quarterly*, 1991, 36, 106-126.
- BOJE, D.M. *Narrative Methods for Organizational and Communication Research*. London: Sage Publications, 2001.
- BUCHANAN, D. Getting the story straight: illusions and delusions in the organizational change process. *Tamara: The Journal of Critical Postmodern Organization Science*, 2003, 2, 7-21.
- BUCHANAN, D. & BADHAM, R. *Power, Politics, and Organizational Change. Winning the Turf Game*. London: Sage Publications, 1999.
- CHILD, J. Strategic choice in the analysis of action, structure, organizations and environment: retrospect and prospect. *Organization Studies*, 1997, 18(1): 43-76.
- CZARNIAWSKA, B. *A Narrative Approach to Organization Studies*. Thousand Oaks: Sage, 1998.
- CZARNIAWSKA, B. *Writing Management: Organization Theory as a Literary Genre*. Oxford: Oxford University Press, 1999.
- CZARNIAWSKA, B & SEVON, G. (Eds.) *Translating Organizational Change*. Berlin: Walter de Gruyter, 1996.

- DAWSON, P. *Organizational Change: A Processual Approach*. London: Paul Chapman Publishing, 1994.
- DAWSON, P. Multiple voices and the orchestration of a rational narrative in the pursuit of 'management objectives': The political process of plant-level change. *Technology Analysis & Strategic Management*, 2000, 12(1): 39-58.
- DAWSON, P. *Reshaping Change: A Processual Approach*. London: Routledge, 2003a.
- DAWSON, P. Organizational change stories and management research: facts or fiction. *Journal of the Australian and New Zealand Academy of Management*, 2003b, 9(3): 37-49.
- GABRIEL, Y. *Storytelling in Organizations. Facts, Fictions and Fantasies*. Oxford: Oxford University Press, 2000.
- GRINT, K. & WOOLGAR, S. *The Machine at Work*. Oxford: Polity Press, 1997.
- HAMEL, G. (2000). 'Waking up IBM: how a gang of unlikely rebels transformed Big Blue'. *Harvard Business Review*, 78(4): 137-46.
- HOLMAN, D. & THORPE, R. *Management and Language: The Manager as a Practical Author*. London: Sage Publications, 2003.
- KAMP, A. Breaking up old marriages: The political process of change and continuity at work. *Technology Analysis & Strategic Management*, 2000, 12(1): 75-90.
- KNIGHTS, D. AND MURRAY, F. *Managers Divided: Organization Politics and Information Technology Management*. Chichester: John Wiley & Sons, 1994.
- LANGLEY, A. Strategies for theorizing from process data. *Academy of Management Review*, 1999, 24(4): 691-710.
- MACKENZIE, D. & WAJCMAN, J. *The Social Shaping of Technology*. Milton Keynes: Open University Presss, 1985.

- MCLOUGHLIN, I. *Creative Technological Change*. London: Routledge, 1999.
- MCLOUGHLIN, I. & DAWSON, P. The mutual shaping of technology and organisation: 'Between cinema and a hard place'. In Preece, D. & Laurila, J. (Eds.) *Technological Change and Organizational Action*. London: Routledge, 2003.
- MOHR, L. *Explaining Organizational Behaviour*. San Francisco: Jossey-Bass, 1982.
- NOBLE, D. Social choice in machine design: The case of automatically controlled machine tools. In Zimabalist, A. (Ed.) *Case Studies on the Labour Process*. New York: Monthly Review Press, 1979.
- ORLIKOWSKI, W.J. The duality of technology: Rethinking the concept of technology in organisations. *Organisational Science*, 1992, 3(3): 398-427.
- PETTIGREW, A.M. *The Politics of Organizational Decision-Making*. London: Tavistock, 1973.
- PETTIGREW, A.M. *The Awakening Giant: Continuity and Change in ICI*. Oxford: Basil Blackwell, 1985.
- PETTIGREW, A.M., FERLIE, E. & MCKEE, L. *Shaping Strategic Change: Making Change in Large Organizations - The Case of the National Health Service*. London: Sage Publications, 1992.
- PETTIGREW, A.M., WOODMAN, R.W. & CAMERON, K.S. Studying organizational change and development: challenges for future research. *Academy of Management Journal*, 2001, 44(4): 697-713.
- PENTLAND, B.T. Building process theory with narrative: from description to explanation. *Academy of Management Review*, 1999, 24(4): 711-24.
- PINCH, T. & BIJKER, W. The social construction of facts and artefacts: Or how the sociology of science and s of technology might benefit each other. In Bijker,

- W., Hughes, T. & Pinch, T. (Eds.), *The Social Construction of Technological Systems: New Directions in the Sociology of History*. Cambridge MA: MIT Press, 1987.
- PUTNAM, L.L., PHILLIPS, N. & CHAPMAN, P. Metaphors of communication and organization. In Clegg, S., Hardy, C. & Nord, W. (Eds.), *Handbook of Organization Studies*. London: Sage, 1996.
- REISNER, R. When a turnaround stalls. *Harvard Business Review*, 2002, 80(2): 45-52.
- SHOTTER, J. *Conversational Realities: Constructing Life Through Language*. London: Sage Publications, 1993.
- SHOTTER, J. & CUNLIFFE, A. Managers as practical authors: Everyday conversations for action. In Holman, D. & Thorpe, R. (Eds.) *Management and Language: The Manager as a Practical Author*. London: Sage Publications, 2003.
- STAKE, R. Case studies. In Denzin, N. & Lincoln, Y. (Eds.) *Handbook of Qualitative Research*. Thousand Oaks: Sage Publications, 1994.
- TSOUKAS, H. The validity of idiographic research explanations. *Academy of Management Review*, 1989, 14: 551-61.
- Wilkinson, B. *The Shop Floor Politics of New Technology*. London: Heinemann, 1983.
- Yin, R. *Case Study Research: Design and Methods*. Thousand Oaks: Sage Publications, 1994.

BIOGRAPHICAL NOTES

PATRICK DAWSON is Professor of Management and Director of the Graduate School at Aberdeen University Business School, Aberdeen University, Scotland. He holds a PhD in industrial sociology from the University of Southampton and worked for 10 years at the University of Adelaide in Australia. He has held a visiting research professorship at Roskilde University and the Danish Technical University in Denmark. He has published over 50 refereed journal articles and book chapters and has a long research history in the area of organizational change where he has published a number of books including: *Organizational Change: A Processual Approach*, London: Paul Chapman Publishing, 1994.

DAVID BUCHANAN is Professor of Organizational Behaviour, at Leicester Business School, De Montfort University, UK. He holds degrees in business administration and organizational behaviour from Heriot-Watt and Edinburgh Universities respectively, and worked for 10 years at the University of Glasgow in Scotland. He has also held visiting positions in universities in Canada and Australia. He is author over twenty books and numerous papers on organizational behaviour, politics and change. Research interests include change management, organization politics, the spread and sustainability of change, and the development of innovative organization cultures in healthcare.