2 A historical perspective on organizational control

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Organizational control: an old, familiar story

Repeatedly through the ages, people have come together to talk and learn about ways of exercising organizational control. From such interactions norms have emerged about effective behavior patterns, and some of these norms have been rendered explicit in codes, principles, laws, adages, edicts, and maxims, that is, in the discursive artifacts that people use to exercise political power and claim moral authority. As people have wanted to explain how an organization has exercised control at a particular time and place, they have constructed stories relating the situational facts to behavioral norms and institutional conditions. Over time, the assumptions that people have made about organizational control have changed too, and these assumptions have influenced the stories they have told. This chapter traces how organizational control has historically been understood.

We begin with one of the very few instances where contemporary organizational scholars have directly addressed the content of this deep human heritage. Specifically, Rindova and Starbuck (1997) describe how the ancient Chinese saw organizations and used conceptualizations of agency relationships to construct alternative ways to exercise organizational control. Next, we move to eighteenth-century Europe and then America and consider how the exercise of organizational control unfolded over time in the West. In particular, we describe how industrial bureaucracies developed and how people would often resist the associated organizational constraints. We consider how this resistance spawned efforts, in turn, to make organizational control more sensitive to human needs and more democratic. We identify the ontological, epistemological, and ethical assumptions that seem to have shaped organizational control research over the

years and we suggest that a new set of assumptions is needed in order to accommodate a "narrative perspective" on organizational control. The benefit of a narrative perspective is that it can incorporate age-old organizational control ideas, while explaining how control occurs in contemporary organizations.

Agency relationships: an ancient control pattern

Rindova and Starbuck (1997: 146) discuss an ancient text, "The Officials of Chou," which described organizing processes in China around 1100 BC. The text advised leaders to organize by using rules to define departments, allocate responsibilities, specify coordination practices, define operating procedures and exceptions, and to carry out performance audits. This ancient proposal seems to advocate an approach to control very similar to what, today, we would describe as a modern bureaucracy (Weber, 1978).

The text suggests that control within organizations depends on hierarchical agency relationships linking superiors and subordinates. Ideally, these relations are harmonious, and superiors and subordinates show respect for one another in terms of etiquette, social rank, and the performance of duties. Such respect establishes a context of social order wherein organizations can function. Centuries later, Confucius warned superiors that they should always show consideration to subordinates, for, if they did not, they might find that organizing rules would not work. It seems the ancient Chinese recognized not only that rules were the basis of organization, but that if organizations were to be effective, those with power must also show respect for the social context constructed by the rules.

China was embroiled in wars from around the middle of the fourth century BC and over the next 200 years, a single, centralized state gradually emerged. The new Chinese rulers also relied on laws to organize but in contrast to the views of Confucius they did not see consideration as an important aspect of superior–subordinate relationships. Instead, texts advocated the control of superior–subordinate relations by the use of incentives, suggesting, for example, that superiors could use income, rank or position to reward those who did as they directed. Texts noted, however, that if leaders offer incentives, subordinates try to obtain them and in doing so, they can become manipulative and cannot be trusted. Texts advised superiors to anticipate such situations by distrusting subordinates, withholding power

from them, concealing thoughts from them, and inspiring fear in them. They justified the approach by noting that though people can be energetic, intelligent, and capable, people who are offered incentives can become independent, self-interested, and deceitful. At the time, control and power were perceived to be closely intertwined, and so approaches to control were expected not only to motivate subordinates but also to guard against any attempt by them to take over superior's power.

These ideas – using rules to structurally organize, and alternative types of agency relationships to implement organizational control – remain familiar today. That is, texts still suggest that one should use rules to constitute stable organizational platforms from which to exercise control (Weber, 1978). They also suggest that the use of additional rules and procedures can facilitate the assignment of resources, the allocation of tasks, the coordination of action, and the assessment of performance (Arrow, 1974). Hierarchical relationships still divide organizations into members at upper levels with power and status who direct and reward, and members at lower levels who do tasks and are subject to upper level direction (Fayol, 1949). In implementing control, one current approach emphasizes superior and subordinate cooperation and mutual respect, while the other advocates the use of rewards and punishments to motivate subordinates to adhere to rules and perform at high levels (McGregor, 1960).

It would require a small army of historians, political scientists, and philosophers to explain how ancient Chinese governance traditions influenced the subsequent evolution of organizational practice in China or elsewhere. Yet the two alternative beliefs about the appropriate construction of human agency relationships are familiar enough. They seem to constitute a pair of basic patterns that continue to clarify alternative ways organizational control can be conceptualized, implemented in practice, and experienced by organizational actors (cf. Adler, 1999; Bijlsma-Frankema and Costa, Chapter 13).

A genealogy of organizational control: tracing contemporary lines of evolution

Just as the Chinese constructed rule-based organizational platforms from which to undertake organizational control efforts, later Europeans also used similar constructions. Yet as reliance on hierarchical agency relationships increased in Europe and later in

the United States, the number of recorded incidents where people resisted rather than accepted control structures also seems to have grown, creating a continuing issue for organizational control implementation. We select representative studies to explain how prescriptions for achieving organizational control were developed and implemented. We then selectively review studies that explain why people resisted organizational control and other studies that have sought ways to overcome this resistance (for review, see Mumby, 2005).

Bureaucracy: the rule platform underlying organizational control

Over time, organizations develop the technologies and skills that are necessary to do particular tasks. As they do tasks better, they tend to grow and, historically, in the process, they have usually also become more hierarchical and more bureaucratic so that organizational control becomes an increasingly important issue. Interests then often emerge that are linked not just to ownership but also to different aspects of the growing organization (Weber, 1978). Over time and based on calculation and rationalization, organization owners and managers identify rules to standardize how tasks are done usually with the aim of having them done more efficiently. Also, rewards and other sanctions are often introduced to encourage employees to adhere to organization standards.

In recent European and American history, the evolution of bureaucratization and organizational control seem to be closely linked. Langton (1984), for example, described how Josiah Wedgwood built his pottery factory over the second half of the eighteenth century and how he developed procedures to run it. Pottery was manufactured in small workshops at the start of the eighteenth century. As tea and coffee drinking increased in Britain and living standards also improved, however, the demand for better and cheaper pottery grew. After much experimentation, Wedgwood perfected what he called Queen's Ware pottery – attractive earthenware that he could make cheaply and quickly. Before he could mass-produce, however, he needed infrastructure – roads and canals – to transport his pottery (without breakage) to markets. With others, he petitioned parliament to build roads and canals in Staffordshire. As the roads and the canals

were built, so Wedgwood also built his factory. Langton (1984) describes how over three decades, Wedgwood discovered and then imposed bureaucratic factory rules and behaviors, the aim being to control and improve factory efficiency. As Wedgwood put it, his intent was "to make ARTISTS ... of mere men ... and make such machines of the men as cannot err," (McKendrick, 1961: 34, as cited in Langton, 1984: 333).

The pottery industry was traditionally organized around master–worker relations and relied on superior–subordinate respect rather than rewards for adherence to standard rules. In fact, employee discipline in the industry was not strong. In contrast to this lack of discipline characteristic of employee relations in small potteries, Wedgwood and other large firms sought to achieve tight employee discipline by rewarding strict adherence to factory rules. Eventually, the products made in traditional pottery workshops could not compete with the cheaper and better products made by the larger firms and so gradually, the small firms disappeared. As larger firms flourished, the work done within them was increasingly standardized and worker activities were constrained because Wedgwood was convinced that factory task performance required rules and rule enforcement. In fact, his rules supported not only task performance but also factory administration. For example, he had rules for worker attendance and punctuality, other rules to prevent waste, and so on. Indeed, he "published an incredibly detailed set of rules governing both production and conduct" (Langton, 1984: 344) and based on his rules, he fined or dismissed violators. Other rules identifying positions in the factory defined a career ladder that enabled him to reward those who respected the rules with higher salaries and higher status. Throughout his life, Wedgwood continually added to and adjusted his factory rules (Langton, 1984).

As fortune would have it, John Wesley, the founder of Methodism, began preaching in Staffordshire. Wesley and Wedgwood were soon close friends and mutual supporters. Wesley preached that to be saved, people had to lead more sober and respectable lives, a position that was nicely consistent with Wedgwood's desire for rule-based discipline based on factory rules. Influenced by his friend's theological framework, Wedgwood saw his organization control process as one of all-round positive moral change that converted "traditional potters into rational, industrial functionaries" (Langton,

1984: 342–344) who then generated better and improved product quality, huge production volumes, high wages for workers, and a huge fortune for Wedgwood (Kanigel, 1997).

Implementing industrial controls

Despite the many benefits generated by his factory, Wedgwood also encountered employees who refused to adhere to his organizational control rules. As he believed that organizational control depended on adherence to organizational rules, it was important for Wedgwood and also firm owners like him to understand this resistance. To uncover some of the issues involved, we consider the contributions of Frederick Taylor, another highly influential figure in the development of organizational control ideas.

Taylor grew up in Philadelphia and from an early age, he was fascinated with all things scientific, technical, and measurable. During the three years that he spent in Europe, he learned French and German after which he attended Exeter Academy before returning to Philadelphia. Despite his privileged upbringing and his interests in the scientific and the abstract, Taylor became an apprentice patternmaker in a metal foundry. Foundry work was dangerous, equipment breakdowns were common, and often, workers faced injury. They had to learn what to do and how to survive by working with and copying the more experienced foundry workers. Remarkably, Taylor concluded that this type of on-the-job training was, on balance, a good experience. His reasoning was that if a bit of brutality knocked ambitious spirits back and convinced people to do what they were told, to fit in, and to serve, then it was justified. He claimed later that as he had been a worker, he had learned and understood what work contexts were like and also how workers thought. He believed these understandings gave credibility to his ideas about organizational control.

Taylor finished his apprenticeship in 1878 and obtained a management position at Midvale Steel. There, workers were paid piece rates and if they earned too much, bosses cut their piece rate. If workers found ways to do things faster, their earnings increased and then, again, their piece rate would be cut. To avoid provoking management to cut piece rates in this way, workers learned to hold back production so that everyone worked at the same pace and earned the same wage. As an apprentice, Taylor had participated in such output restriction

efforts and so he knew how workmen could control output levels. As a manager, however, he intended to break these output controls.

To do so, he took men aside and showed them how to work faster. If they did not then work faster, he fired them. Next, he would hire and train new people and, if they did no better, he fired them too. Workers described Taylor as a brutal liar with no idea what he was doing. They said the reason their machines broke down was because they did as he told them. Taylor responded that if a machine broke down, the worker using it would pay for its repair. Taylor warned management that his methods would meet with worker resistance and they had agreed to back him. His battle to control Midvale's production levels lasted two years. Reflecting on the experience, Taylor said that he did not want initiative from the men – he just wanted them to obey his orders.

Taylor believed that organization control could be achieved based on knowledge, but he also thought he did not have enough knowledge to exercise the degree of control that he wanted. For example, the workmen at Midvale knew how to go slow even as they could convince management they were working as hard as they could. Taylor could see through most of this but he was not sure that if the men actually did as he said, they would achieve the results he hoped for. He took comfort, however, from the fact that the men did not know what results to expect either, for their knowledge was based simply on shop lore, guesswork, and rules-of-thumb (i.e., situated knowledge that was also often subject to work restriction norms). Taylor was confident that the knowledge he generated using careful measuring methods divorced of work restriction norms determined what could be done in a "more scientific" way and so was superior to any knowledge the workers might possess. He also felt that his superior knowledge was justification enough for the way in which he would dismiss worker complaints and protests.

Taylor generated work knowledge by systematically breaking work cycles down into minute pieces and using experimentation, time-and-motion studies, and data records to find out just how fast different machine tools could go. He chose simple work cycles and most often, his control goal was high production speed. To develop control methods to achieve the highest speeds, he believed everything needed to be tracked, recorded, and standardized. He also believed that all factories would eventually develop and implement this type of knowledge. Taylor divided factory personnel into managers who knew

about how machinery worked and how it could be made to work, in contrast to workers who he did not expect to think about how machinery could work at all. Instead, the role of the worker in Taylor's mind was to do as directed and be motivated to do it faster by a piece-rate incentive schedule that was designed by Taylor. Hierarchical role distinctions pervaded Taylor's approach.

In the 1890s, Taylor became a consultant and started presenting papers. His claim was that the way he used piece rates aligned worker and management interests. In order to establish alignment, however, it was necessary for management to study and analyze each job and determine the best way for the work to be done. Based on this knowledge, management could then set output levels that defined a production floor (i.e., workers had to achieve the floor before they would be entitled to additional rewards based on the piece-rate system). Once a production floor and a piece rate were set, Taylor was adamant that organizations could not change them. He reasoned that only if workers believed that they could depend on an unchanging reward structure, would they work to achieve high production levels.

For everyone, then, the process for setting the level of the production floor and the piece-rate schedule was crucial. While determining the appropriate levels for piece rates, Taylor was secretive and slow as he knew his judgments would ultimately be critical for all concerned. Once he understood the work and had set a production floor and a piece rate, however, he sought to share his knowledge with the workers and show them how to achieve high production levels. His aim was high production rates for firms and high rewards for workers – this was the interest alignment he had in mind that he also believed would ultimately ensure the acceptance of his approach. He did not consider how his organizational perspective pervasively emphasizing hierarchical role differences could also have implications for organizational control effectiveness.

Taylor never implemented his organizational control approach on any scale. At Bethlehem Steel, for example, he was hired as a consultant to reduce plant costs. He saw how some people had a greater aptitude for particular types of work than others and so he studied the abilities needed for particular jobs and selectively hired people who had these abilities. One of his selective hires was "Schmidt," a man with exceptional strength and an ability to load pig iron. Taylor studied and trained Schmidt so that eventually, he may have loaded

pig iron at rates never seen before or since. Taylor thought of Schmidt as a great success because he did what Taylor told him (i.e., he loaded large quantities of pig iron to the benefit of Bethlehem Steel) and, due to the piece rate set by Taylor, he was also very well paid. Schmidt's co-workers, however, hated him and continually harassed him. Taylor's approach was also impractical because of the time it took to work out an appropriate level for a production floor and the piece-rate incentive. Even if these levels were determined appropriately, management would most likely again confront new rounds of worker resistance and scorn.

The human relations paradigm

Taylor called his approach, "scientific management." While his approach had its adherents, it also ushered in a backdrop of debate about whether the "hard" science approach advocated by Taylor was actually appropriate for studying and controlling humans. Some (e.g., Trist and Murray, 1990) rejected the approach outright, claiming it was dehumanizing on ethical and epistemological grounds. Others (e.g., Likert, 1961a) rejected it on pragmatic grounds, for it had become clear that Taylor's methods generated extensive labor resistance and many disputes, and these costs and delays ultimately destroyed the economic value that might have been associated with his approach.

It was striking that Taylor's methods showed neither interest nor respect for any role that the people actually doing the controlled tasks might play in the control process. Shifting from an exclusive focus on task design mechanics and reachable output levels, therefore, scholars refocused attention on just how the organizational control efforts were implemented and how this process might psychologically influence how people reacted. This led to a series of field studies in different locations that examined a wide range of managerial initiatives and considered how people attributed meaning to them.

In the famous Hawthorne studies, Elton Mayo tried to hedge against the socialism and syndicalism growing during the late 1920s by looking for factors that actually motivated workers (Mayo, 1933). His psychological methods inquired whether the causes of conflict between management and labor could be identified and, if so, if they could be rationally controlled. The studies involved factory

workers making telephone equipment in Cicero, Illinois. The study aim was to track the performance consequences of a large number of interventions such as turning the lights up or down to make rooms brighter or darker, authorizing or canceling coffee breaks, and so on. A "problem" arose as it was realized that most interventions and almost any sort of change all seemed to increase production. The authors attributed output increases not just to the conditions that their intervention changed, but also to the changed attitudes and social relations that the experiments brought about at the Cicero work site. In particular, the researchers noted how as people were happily working as a team and had no sense of coercion, feelings of autonomy seemed to emerge and people would simply do things to help themselves and their organization. An implication for organizational control was that leaders needed social skills that could foster teamwork. A leader's superior social skills seemed to act as if they were a continuing throughput control, enabling ongoing cooperation in on-the-job situations while simultaneously also disarming worker alienation.

In the mid-1940s, MIT's Research Center for Group Dynamics included Kurt Lewin, Ronald Lippitt, Leland Bradford, and Kenneth Benne and they shared concerns about the role of hierarchy and the future of participatory democracy in organizations. Lewin's field theory (Lewin, 1943) framed "group dynamics" in terms of how personal, situational, and contextual forces affected group behaviors. Granting the unavoidable and shaping influence of contextual factors, the group rejected both behaviorist and experimental methods and, instead, adopted a participatory, action research approach to the development of situated knowledge about organizations (Bradford *et al.*, 1964; Lewin, 1946).

As an explicitly humanist project that focused on the emotional and psychological outcomes of small groups these efforts, intended to involve organizational members in an understanding of their own group dynamics, were a clear alternative to the authoritarian ideology that in the name of industrial management consistently imposed rule adherence on work situations. These experiments, in contrast, suggested that democratic structures enabling participatory dialogue and representation could successfully resolve disputes and achieve performance objectives without trampling on workers (Bradford *et al.*, 1964). Like Mayo (1933), the MIT researchers also concluded that

democratic processes could probably serve as important throughput controls, helping maintain employee satisfaction and production levels over time.

In the United Kingdom, the origins of the Tavistock Institute were in the Directorate of Army Psychiatry, where empirical research focused originally on soldiers was motivated by a frenzied attempt to build a land army quickly during the second world war. A Rockefeller Foundation grant in 1946 enabled this research team to continue and found the Tavistock Institute. The group was guided initially by dynamic personality theories (e.g., Freud, Jung, Adler), with Tommy Wilson and then Eric Trist as the first directors. Moving beyond Freudian psychological drive theories, Tavistock researchers adopted object relations theories and focused attention on how relationships between and among people evolved (Trist and Murray, 1990).

The Institute carried out three significant organizational control research projects. One of them, looking at management–worker relations, took place at the Glacier Metal Company and identified process consulting as a method for alleviating and controlling conflict (Jaques, 1951). Another focused on an emergent method of coal mining in which members of self-regulating work groups rotated through different tasks and thereby gained a greater understanding of each other's responsibilities, reducing the potential for anger to develop towards team members (Trist and Bamforth, 1951). A third project focused on the education of medical professionals, training them in techniques to avoid the counter-transference issues that arose when the professionals projected their own problems on to their patients (Menzies, 1970). Working with action-oriented research methods, the Tavistock staff developed consultancy practices to foster organizational awareness and process-oriented controls. Inasmuch as Tavistock research had initially used scarce resources to address large-scale military control problems, the later studies demonstrated how human-oriented process control techniques had value and significance for civilian organizations.

At Ohio State University in the post-second world war period, Ralph Stogdill got military personnel, manufacturing industry employees, university administrators, students, and others to fill out questionnaires (Stogdill, 1948) and then used statistical factor analysis to identify patterns that might be associated with effective leader behavior. His analyses suggested that leaders who were perceived

to demonstrate "consideration" and "initiating structure" achieved higher performance and greater employee satisfaction. Leader consideration meant that organization members perceived a leader to be concerned about the welfare of a group. Considerate managers were perceived to be friendly and approachable, to treat associates as equals, and to be available for discussion and consultation. The behaviors associated with initiating structure, in contrast, included the extent to which a leader defined roles, initiated and organized activities, and articulated goals. Given particular tasks, structure-initiating managers would define performance standards and organize ways to assess progress.

Like Stogdill, Rensis Likert at the University of Michigan used questionnaires and statistical analyses to identify the keys to worker satisfaction and productivity. Likert (1961b) identified three leader behaviors he called task-oriented, relationship-oriented, and participative behaviors, which he found were associated with better task performance and higher employee satisfaction. Task-oriented behaviors occurred as employees determined how tasks were to be done while their managers adopted a facilitative role, attending to goal-setting, planning, coordination, and securing resources. Relationship-oriented behaviors occurred as managers ensured workers had intrinsic and extrinsic rewards. Participative behaviors occurred as employees had a voice in managerial decision-making processes. In this light, the combination of work-facilitating behavior by managers and a degree of ongoing employee decision-making appeared to complement one another and to function again as informal throughput control devices, lessening resistance to direction while continually reinforcing individual motivation.

All of these studies suggest that in order to achieve organizational control, it may not always be necessary to monitor workers closely (e.g., checking on exactly how many shovel-loads Schmidt took to fill the hopper with pig iron and paying him for everything he did). The general insight instead was that managers could allow employees a degree of autonomy in determining goals and how best to achieve them. Participative management ultimately has managers standing shoulder to shoulder with workers, modeling desirable behavior and helping to resolve differences. As managers also behave less formally, they are more able to consistently facilitate these throughput controls. Leaders support rather than command as they seek out and respond to team issues and suggest ways forward.

The Michigan studies also concluded that as groups perceive themselves as teams (i.e., not simply as sets of unrelated individuals), they work better together. Likert (1961a, 1967) identified four possibilities for organizational control systems and he named them exploitive authoritative, benevolent authoritative, consultative, and participative. He endorsed the participative control system as being the most effective. Based on this conceptualization of a participative control system, Blake and Mouton (1964) developed a training program – the "managerial grid" – to help organizations implement participative organizational control systems. This program with its emphasis on "team management" became widely popular in the 1970s. Essentially, the message was that by balancing concerns for production and people, management achieved more effective organizational control.

The Carnegie school

March and Simon (1958) depicted organizations as information processing or calculating machines dedicated primarily to a search for efficiency. Using theory and empirical evidence, they presented a series of propositions summarizing organizational knowledge as it stood in the 1950s. In their book's second edition, however, they moved some distance away from this mechanical metaphor and depicted organizations as being "systems of coordinated action among individuals and groups whose preferences, information, interests, or knowledge differ" (March and Simon, 1993: 2). They argued that coordinated action enables organizations to survive as organizations have "control over information, identities, stories and incentives." They also warned, "Effective control ... is limited, however, by the uncertainties and ambiguities of life, by the limited cognitive and affective capabilities of human actors, by the complexities of balancing trade-offs across time and space, and by threats of competition" (March and Simon, 1993: 2).

In reassessing their earlier work, March and Simon (1993) suggest that alternative logics guide attention at different organizational levels, and so are likely to influence the control processes implemented at these different levels. At middle and lower levels, for example, control efforts are usually guided by a logic of consequences (i.e., control initiatives are supposed to influence task-related efficiency and effectiveness). Tasks like inventory optimization or production

maximization often require extensive amounts of data processing and so today, instead of having people do these tasks, organizations program computers that then monitor ongoing situations, apply particular routines, and initiate responses exercising control in a way that is directed towards promoting efficiency and effectiveness. Unlike people, computers are not subject to bounded rationality constraints or limited calculating abilities (March and Simon, 1993: 10), the substitution of computers as control agents has often enabled control improvements at middle and lower organizational levels.

To the extent that an organization relies on different knowledge bases that are located in different organizational units, people must exercise control at higher organizational levels (Ocasio, 1997). In particular, as each organizational unit has different priorities, there is potential for conflict and organization members to have to identify and apply a logic of appropriateness to resolve this conflict. For example, a system of rules may determine what is organizationally appropriate. For example at the North American Space Agency (NASA), the ideal rule might be that safety concerns should always have priority over scheduling concerns (Dunbar and Garud, 2009). Over time and as environments and organizational interests change, those at the highest levels adjust and adapt the priorities that determine what is organizationally appropriate.

By using a logic of consequences and a logic of appropriateness in their control processes, organizations emphasize stable task performance at middle and lower levels, and change in the form of evolving appropriateness criteria at upper levels. As control rules at lower levels repeatedly promote efficiency and effectiveness, this consistency may in itself change what people at upper levels consider to be appropriate. Over time and as appropriateness criteria change, organizations adjust what and how they do things (March and Simon, 1993: 15).

The process paradigm

Researchers have considered how a logic of consequences and a logic of appropriateness may function together to guide attention in exercising organizational control (Ocasio and Wohlgezogen, Chapter 7; Tsoukas, 1996). How organizations pay attention to events depends, on the one hand, on the stable rules and task units that constitute the platform enabling an organization to do things at middle and lower

levels and, on the other hand, on how an organization is set up at the highest levels to assess appropriateness and so deal with change that emerges over time. In this way, different logics are guiding complementary organizational control processes at different levels. At one level, attention is focused on achieving efficient task performance. At another level, attention focuses on applying appropriateness criteria to make adjustments triggered by changes due to interactions with surrounding units or to unfolding reality (e.g., Garud and Rappa, 1994).

As an illustration, Sitkin *et al.* (1994) examined the control processes associated with the total quality management (TQM) movement. Propagated in the 1980s as a set of basic principles – "doing things right the first time, striving for continuous improvement, and fulfilling customer needs" (Snell and Dean, 1992: 470; as quoted in Sitkin *et al.*, 1994: 538) – TQM spread rapidly because it promised in part a means of handling the uncertainty and complexity of dynamic business environments. Sitkin *et al.* point out, however, that TQM proponents do not adequately conceptualize how contingencies endemic to a firm's particular situation may influence its control efforts and, for this reason, TQM control systems can become insufficiently attuned to organizational environments.

In order to prescribe what a TQM-based control system should do, Sitkin *et al.* argue for a conceptualization that acknowledges and differentiates the consequences of well-understood and poorly understood conditions. If situations are well understood, control can rely on monitoring and standardized procedures to achieve desired outcomes. If situations are not well understood, because they are changing, novel, or unfamiliar, control depends on monitoring what is occurring and determining what are appropriate responses. They suggest that organizational effectiveness reflects the balance of attention allocated to (a) achieving particular, well-established goals; and (b) learning about unfolding events and determining priorities based on appropriateness criteria. Sitkin *et al.* write that "managers can gain competitive advantage from this apparent paradox if they are able to recognize that the everyday situations they confront almost inevitably involve both the exercise of control and the capacity to learn" (1994: 540–541).

The significance for organizational control of Sitkin *et al.*'s theoretical contribution is that they portray control, risk, uncertainty, and change as being irreducibly intrinsic to the organizational

environment. Levels of uncertainty may be higher or lower but even if they are low, uncertainty cannot be fully overcome through the predictions of scientific inquiry. In this sense, the goal of organizational control studies cannot be to empirically demonstrate universal control principles appropriate to all situations. Instead, organizational control studies seek to demonstrate how means for control are appropriate in some circumstances but not in others (Kirsch and Choudhury, Chapter 10; Kreutzer and Lechner, Chapter 15; Long, Chapter 12). This pragmatic view opens the door for control studies to "examine the degree to which ... effectiveness-enhancing activity patterns (e.g., rapid recognition of contextual change, speedy decisions, and learning over time) become synonymous with practices that facilitate learning-oriented quality in organizations" (Sitkin *et al.*, 1994: 558).

Exploring change processes and organizational control, Cardinal *et al.* (2004: 411) build on Cyert and March's (1963) position defining control as an alignment of capabilities, activities, and performance with organizational goals and aspirations. Their aim is to theorize about what drives change in organizational control systems, and their specific focus is on the balance between formal and informal controls as this evolves over time. Presupposing a dynamic ontology in which change occurs inside and outside the organization, they look at input, behavioral, and output control mechanisms. Their data draws on a ten-year case study of the Blue Whale Moving Company, a small logistics firm operating in a mid-sized metropolitan area. They utilize grounded theory, reporting on their data and the consequent emergent theoretical constructs (Glaser and Strauss, 1967).

The study presents an in-depth story of an entrepreneur, "Miller," a likable chap who, together with a partner, "Armstrong," thought that Blue Whale could edge out a good margin on the existing moving business by focusing on internal employee relationships and external relationships with clients and customers. They paid employees a decent wage and implemented informal employee controls that focused on "hygiene, attire, attitude and strength" (Cardinal *et al.*, 2004: 415), and balanced this with a monitoring of traditional firm performance measures.

By focusing on informal and formal control processes over a ten-year period, the study identifies key events that affected the constitution of the evolving balance in this organization's control system. Cardinal *et al.* point out that when firms emphasize formal

control mechanisms then – depending on other contextual factors – this emphasis can have a blowback effect that can create new imbalances. Furthermore, they theorize that organizational control systems can be latent rather than explicit, and that even when a balance shifts, traces of earlier formal and informal controls still remain. In this light, the focus of control research shifts away from the explicit impacts of laws, regulations, cultures, and formal or informal mechanisms of whatever sort and moves, instead, toward the tacit assumptions that shape those same artifacts and practices. These tacit assumptions shape strategic decision-making at a rhetorical as well as at a performative level, in a particular manner of speaking or as a mode of activity. To wit: after Blue Whale surfaced from a period of acrimonious legalism, a pair of professional managers reinstated a balance of formal and informal controls, including everything from punitive fines for tardy task completion to "celebratory beer parties" (Cardinal *et al.*, 2004: 424).

The process view of organizational control recalls the basic patterns identified in ancient China. However, rather than forcing a stark either/or choice between one or other conceptualization of an agency relationship, it shows how hierarchically instituted and enforced incentives and sanctions are able to be blended and balanced over time, and how cooperation and mutual respect among superiors and subordinates can change and then be reestablished. Qualitative, longitudinal research methods can help explain how balance in a control system can be lost and then also how it can reemerge.

Reflecting on the trajectory: tracing out basic assumptions

The genealogy that has been presented allows us to look back across the history of organizational control and consider the different ontological, epistemological, and ethical assumptions different studies have made. By identifying these assumptions we may raise more questions than we answer – indeed, we realize future research will be able to apply these basic philosophical categories with greater rigor and in greater depth. Our purpose here is to trace out how historically different assumptions underlie organizational control studies and how they also shape the contemporary state of the field. Indeed, we suggest that historical assumptions remain present in contemporary theories and practices even as studies of organizational control evolve in new

directions. In view of the scholarship in this volume, then, the implications beg for further consideration.

The history of organizational control studies is shaped by ontological assumptions made about what control is, along with the nature of its temporal status and its causality. Traditional organizational control research seems to frame the essence of control in terms of formal, logical principles defining unchanging agency relationships that continuously allow the exercise of control in a machine-like, instrumental manner (e.g., Taylor, 2003). In contrast, human relations researchers seem to assume that the essence of organizational control is tied to affective rather than logical phenomena, to human motivation and emotions rather than to rationality (e.g., Trist and Murray, 1990). However, in this literature, human motivation is also viewed as static, taking effect in different contexts in consistent and necessary ways over time. The more recent process paradigm perspective frames the essence of organizational control in terms of situation-specific appropriateness (e.g., March and Simon, 1993). This implies that the essence of organizational control differs across cases, and the elements of organizational control also change over time depending on researchers' assumptions and contingent on the events that unfold in a particular context, as well as the appropriateness criteria that an organization is emphasizing (Cardinal *et al.*, Chapter 3).

These ontological assumptions are interwoven with epistemological assumptions about how organizational control processes can be known. Scholars working in the traditional paradigm see control primarily through a lens that is shaped by engineering knowledge and applied physical science knowledge. Scholars working in the human relations paradigm see control using humanist concepts drawn from psychology and other social science fields. Finally, while process-oriented scholars acknowledge both of these knowledge sources, in addition, they draw in systems theory knowledge and network concepts to further broaden the way they understand organizational control processes (Beer, 1975).

Consistent with their ontological and epistemological assumptions, scholars make different assumptions concerning the research methods most appropriate for the study of organizational control. Some researchers have favored empirical testing and quantitative analytic methods drawn from the physical sciences, others have focused on empirical observation and the monitoring of human reactions *in situ*,

while others have engaged in participant observation, employing qualitative analysis methods to generate case study descriptions of what occurs in control situations. Researchers also differ in their assumptions about what the primary unit of analysis should be. The traditional paradigm focuses primarily on control outputs, for example, did production rise or not? The human relations paradigm focuses on a range of inputs, throughputs, and outputs, for example, how do employees feel as they arrive at the workplace? How does the manager behave? How was news of the production increase presented? The process paradigm addresses all of these variables related to the situational context and adds the views that organizational actors have concerning what is appropriate. For example, what is the nature of the cultural context in which the organization operates and what priorities does this imply? How is it considered appropriate for employees to interact with one another and with the organization's management and technologies during the production increase period?

These epistemological assumptions are still further interwoven with ethical assumptions about the value that organizational control should serve, the character of human agency or intentionality, and the consequences that follow when control systems are implemented and take effect. Ethical theorists differ about whether the value of human action should be ascribed to intentions or to consequences (cf. Derry and Green, 1989), but both options can be considered to be "ultimate ends." In this sense, traditional studies most often assume that the ultimate end of organizational control is increased output and so the relative value of a method relates to the degree to which it generates "more" output than other methods. Those working in the human relations paradigm accept that "more" can have value, but they frame ultimate ends in terms of workplace humanization. Given two equally productive control systems, they can be distinguished based on the extent to which they enhance employee well-being and quality of life. Process scholars also do not dispute the value of either more output or enhanced human well-being, but they frame the ultimate end of organization control in terms of increased participation in workplace decision processes. Hence, the value of organizational control can be further differentiated based on the extent to which it allows stakeholders to engage in and contribute to the processes an organization uses to adjust to changing circumstances (Loughry, Chapter 11).

As we saw following the basic pattern established in ancient China, assumptions about human agency or intentionality shape organizational control research. Traditional control research frames the individual as a rational actor who seeks to maximize pleasure and minimize pain as the extrinsic outcomes of work activity. From this perspective, the worker is amenable to control to the extent that extrinsic incentives are sufficient. While human relations researchers accept rationality in human actors, they recognize that both intrinsic and extrinsic rewards are important. From this perspective, the incentives that make actors accept controls include not just financial incentives but also non-economic rewards such as recognition and fulfillment. For process researchers, the focus is on the bounded character of human rationality, informational incompleteness, and on the ambiguous nature of the causal factors that bear upon people as they make decisions about acting in organizational contexts. From this perspective, the incentives and disincentives at any decision point are contingent and situation-specific, and cannot be generalized to other actors even if they are in similar situations.

Based on their ontological, epistemological, and ethical assumptions, researchers have different beliefs concerning what organizational control systems should achieve if they are properly implemented. For those working in the traditional paradigm, the desired, proximate consequence of organizational control is purely formal – whatever the context and the means, the ultimate end is "more," whatever this may mean in a particular context. In contrast, organizational control that is based on human relations assumptions should enhance and certainly not detract from the quality of organizational life. Similarly, the consequences of a process-based control system will include many adjustments and changes reflecting the views of wider participation as may be brought about by stakeholder forums, process consulting practices, and other methods that draw more diverse contributions to the organizational control process that reflect a variety of interests and identities.

These assumptions allow us to trace with greater precision how the basic pattern that Rindova and Starbuck (1997) identified with respect to ancient Chinese governance has then unfolded in contemporary European and American organizational control research. Table 2.1 presents a summary account of these assumptions.

Table 2.1 *A genealogy of organizational control*

Assumptions	Traditional	Human relations	Process
Ontological			
What is the substance of control?	Logical principles of form	Human motivation	Situational appropriateness
What is the temporal status of control?	Static	Static	Dynamic
What is the nature of control's causality?	Machine-like instrumentality	Machine-like, but including emotions	Ongoing change and adjustment processes
Epistemological			
Through what knowledge lens is control understood?	Engineering	Psychology and other human and social sciences	Social and human sciences, systems and network analysis
By what methods can control be known?	Quantitative methods, empirical testing	Quantitative methods, empirical testing, and monitoring	Qualitative and quantitative methods and case studies
What is the primary unit of analysis for control studies?	Output variables	Input, throughput, and output variables	Contextual conditions, input, throughput, and output variables
Ethical			
What value does control ultimately serve?	Increased productivity	Humanization of the workplace	Democratization of the workplace
What is the nature of human intentionality?	Rational, seeking extrinsic rewards	Rational, seeking extrinsic and intrinsic rewards	Boundedly rational, constantly adjusting based on situational appropriateness
What consequences should control have when implemented in organizations?	Gains in production	Enhanced attention to human resource departments, personal and organizational development	More stakeholder forums, process consulting

Discussion: making sense of organizational control or turning it into a black box

Despite the changes in assumptions underlying organizational control studies over the years, organizational control as actually practiced seems to reflect a mixture of all of the assumptions – the traditional, human relations, and process perspectives. This mixture of assumptions may reflect the fact that control assessment itself is often done by people with high positions in organizational hierarchies who often adopt a traditional perspective and simply consider whether the outcomes they intended to control have in fact been achieved. As outcomes match their expectations, they consider the organization to be in control. As outcomes do not match their expectations, they want to know what has not worked and needs to be changed. Their attention focuses on rules for channeling resources, behavior, and information flows to and from environments and between organizational units. Their continuing question is whether the organizational rules and routines they have developed are consistently and logically directed toward achieving the output goals they desire. They obtain an answer as they make top-down sense of the situation using narrative frameworks that reflect their understanding of the overall purpose, meaning, and direction of the firm and the issues it is dealing with. Narrative frameworks, by providing answers to basic questions about the identity and trajectory of the firm, provide an overall perspective that shapes the development and implementation of more detailed control mechanisms (Pajunen, 2008).

As well as dealing with top-down controls directed toward organizational output goals, managers who work supervised organizational units must also deal with real-world forces that directly affect what their unit must do in order to achieve desired results. In a production unit, for example, there may be issues surrounding the quality of the materials worked on and available labor skills. At this level, the manager's control assumptions are likely to relate to either the human relations or process perspective. Although local units may require procedures to deal with ongoing issues, these practices may only indirectly relate to the criteria being used by positions high in a hierarchy to guide and assess performance (e.g., the hierarchy may want to tell a story about record-breaking organizational growth and profits, rather than a story about how local units deal with continuing

input crises). At different organizational levels, organization members may be using different control frames (Chreim, 2006).

To manage the real-world forces affecting unit performance, managers identify and discuss the associated issues with members of their organizational unit. Exchanges then generate ideas about factors influencing these forces, how they affect performance, and how they may be dealt with. Over time, understandings emerge that unit members summarize and share in stories identifying the issues likely to arise, the signals that have to be monitored, and the actions that must be taken. They also usually include illustrative examples of how issues have arisen and been dealt with in the past. Hence, the narratives summarize a unit's task knowledge and experience and identify ways in which units can mold and change ways of doing things so as to deal with real-world issues even as they also meet hierarchically imposed control criteria.

Organizational control is influenced by the direction provided by hierarchically imposed overall goals that are in turn shaped by the particular set of narrative frameworks developed by those holding hierarchical positions. Organizational control also reflects understandings that develop within local units through the narratives that emerge and explain how to manage the real-world forces affecting performance. At all levels, stories are dynamic, unfolding and changing as they are developed and shared through continuing interactions between organization members (Gephart, 1978).

As organizations get larger, the hierarchy grows so that there are more people at higher levels. This leads to nested sets of agency relationships (i.e., at each hierarchical level, there are agency relationships between each position and the quasi-independently functioning units directly below). People in hierarchies know about the output measures they impose on the units below. To emphasize the importance of these outputs, people in hierarchies often make subordinates' rewards contingent on performance measures that they define as important. Often, however, people in hierarchies do not appreciate the real-world forces that organizational units below are controlling. Instead, their focus is on the output measures that are important to them and they see within unit controls that are dealing with local real-world forces as simply "black boxes" beyond their concern.

As unit outcomes are inconsistent with expectations, people in hierarchies have to assess what went wrong in what they see as a

"black box." They often assume that the directives and criteria they impose are the most important if not the only control structures managers under them are dealing with. In fact, they most often do not know the forces that local units are dealing with or how they are being managed, and so they focus attention not on any control processes that may be in place but, instead, on the individuals with hierarchical responsibility for managing the units that have not achieved expected outputs. Not knowing how these individuals exercise control within their units, those in the hierarchy most often choose to focus on the reward and punishment levers they can impose on the units with the intent of "motivating" managers to achieve results that those in the hierarchy desire.

In fact, as people in hierarchies reward people below based on performance relative to metrics imposed from above (e.g., meet a budget, fulfill a quota), those in the supervised units become increasingly sensitive to imposed metrics. Attention narrows and becomes more aggressively focused upon achieving outputs desired by the hierarchy. Depending on results achieved relative to hierarchical expectations, praise or blame is heaped on unit managers. Unlike people in the hierarchy, however, people at lower supervised levels must continue to manage the real-world forces their unit faces. As the rewards and punishments grow, however, the temptation also grows to find ways to simply ignore real-world forces (e.g., relax checking procedures or safety checks) in order to score higher on approved metrics.

People narrow their attention to metrics reflective of what the hierarchy measures and monitors to gain the rewards superiors offer. In doing so, they also often become skeptical of hierarchically directed processes. Reality as perceived by the hierarchy consists of desired results that are linked to rewards and punishments while many other things also impacting reality may be simply ignored. As a result, people tell stories about how rewards and punishments lead to unfairness and control failures. Such a process can break an organization into divided camps as some people feel angry and alienated, their efforts unappreciated and unrecognized, even as others reap rich rewards because their performance looks like what management expects. People in hierarchies doling out rewards based on the output measures they have imposed may, in contrast, be increasingly confident that it is they who are exercising control and they may also believe they are flushing out the irresponsible and incompetent.

From an organizational control standpoint, hierarchically imposed output control goals supported by rewards and punishments refocus attention away from the way that supervised units manage real-world forces. Yet there will be no sense of alarm in the hierarchy as the reward and punishment system draws attention away from local control efforts because this is exactly as the controls are designed to function. The result is an unrecognized organizational control illusion for people in hierarchical positions as their reward and punishment process encourages managers to abandon attention to narratives directing how to manage real-world forces at supervised unit levels (Dunbar, 1981: 106; Langer, 1975).

This illusion is exacerbated by the impact that computer technologies have had on the implementation of organizational control processes. With their ability to generate and store unlimited amounts of data, computers make it possible to monitor and store detailed information describing how events to be controlled unfold over time. Modern communication technologies then make access to this data widely available. Further, computers can be programmed not only to generate and accumulate data on controlled events but also to actually implement controls taking a wide range of organizational interests and relationships into account. A consequence is that rather than being dependent on hierarchical agency relationships as historically was the case, modern organizations are much more dependent on computers and their preprogrammed agency systems. While in the past, people directly determined how agency-based control was implemented, today people who design and program computers indirectly but effectively determine how organizational control implemented by computers either works or fails. Those responsible for design of the control system simply assume that the computer is "going to work" as it should (Vaast and Levina, 2006).

In this regard, Cavetti *et al.* (2007) suggest that the meaning of agency in control contexts has changed and needs to be reformulated. Computers in organizations are agency systems with tremendous calculative and data-processing power along with a wide range of monitoring and updating abilities. They can be programmed to link data on unfolding events to a range of response options that can reflect stakeholder interests and control goals. Computers must be preprogrammed to unleash this power, however, and to implement organizational control automatically. This means that there is a continual need

for situational understanding both in the design of organizational control systems that are computer-based, and also afterward when the system should continually adjust to changing circumstances. Organizations develop situational understanding based on the records that document the reasons for the design of the control system, and in the stories that record the issues that have arisen and continue to arise in implementing the control process. Performance records combined with stories constitute the knowledge organizations rely upon as they explain and implement control in a computer-dominated world.

Toward a narrative perspective on organizational control

We have traced out how illusions of control emerge when high-level people lose their sensitivity to how people in lower organizational units are exercising control, or as computer technologies suppress sensemaking process details at all organization levels. To deal with such developments, one needs a method that is able to register details of the control process and the multitude of things that can go wrong in the process of exercising control in modern organizations. We believe a "narrative perspective" is such a method. We characterize a narrative perspective on organizational control in terms of the ontological, epistemological, and ethical assumptions that it makes.

At an ontological level, this perspective frames the essence of control substance as a multiplicity of narratives. These narratives may cohere with each other or they may be contradictory, but they emerge at different organizational levels and serve different functions at different times. Their temporal status is dynamic rather than static; they can but need not change at every story retelling and as sensemaking events unfold. The nature of their causality can be characterized both in constructivist terms as being the creation of meaning, and more precisely in terms of sensemaking, whereby every time actors recount a narrative they are also attempting to enact organizational control on themselves and on those who hear them (Weick, 1995).

At an epistemological level, a narrative perspective requires scholars to use a lens shaped by narrative studies, including the humanities and the humanist social sciences, to understand organizational control. The methods of analysis appropriate to the narrative object of study include philosophically informed literary criticism and rhetorical analysis as well as the interpretative, hermeneutic traditions

of discourse analysis (Polkinghorne, 1987). By looking through this lens and using these methods, control scholars can focus on the historically and contextually specific meaning narratives have for organizational actors (George and Qian, Chapter 6; Pentland, 1999; Van Maanen, Chapter 5). Narrative control scholars may also examine specific symbols or artifacts to analyze how an organization's identity is constituted, inasmuch as that identity is comprised of multiple narratives and provides actors with an answer to the strategic question, "who are we?" (cf. Gioia *et al.*, 2000).

At an ethical level, the narrative perspective frames have coherent meaning as the "ultimate end" of organizational control. Even though the multiplicity of narratives can never be boiled down to a single story – indeed by definition, such a fantasy may be fascist – if an organization is to function effectively, the black box situation described above must somehow be addressed. In such situations, the competing or contradictory narratives need to reconcile in a way that is coherent with the overall identity of the organization as well as with the changing circumstances dealt with by organizational units. This reconciliation requires a new integrative story, and so the intentionality of the individual actors seeking such a narrative is framed and developed not only by boundedly rational, adjusted expectations that are geared to intrinsic and extrinsic rewards, but also by active imaginations that *creatively* give experience new meaning and enact a shared vision of organizational control (cf. Garud and Karnoe, 2001).

Based on these ontological, epistemological, and ethical assumptions, we can reframe the consequences of narrative perspective for organizational control, and identify alternative ways of addressing the challenges presented by black box situations. Broadly speaking, organizations have to engage in storytelling practices. Ideally, these practices unfold at all levels, acknowledging and integrating different actors and organizational circumstances. Top-down, formal organizational control may be exercised, for example, through storytelling practices involving internal and external branding (e.g., Denning, 2006). Bottom-up, informal control may be exercised through storytelling practices that involve spontaneous discussions around a water cooler (e.g., Gabriel, 2000). These practices may be identified, designed, and implemented explicitly, or they may propagate themselves implicitly through behavioral cues or subtle shifts in the physical work environment. But whatever specific shape the

Table 2.2 *A narrative perspective on organizational control*

Ontological assumptions	
What is the substance of control?	Multiple narratives
What is the temporal status of control?	Dynamic
What is the nature of control's causality?	Make experience meaningful: sensemaking
Epistemological assumptions	
Through what lens is control understood?	Narrative studies, as presented in the humanities and the social sciences
By what methods can control be known?	Literary criticism, rhetorical analysis, hermeneutic discourse analysis
What is the primary unit of analysis for control studies?	Stories, narratives, organizational identity artifacts and descriptions, symbols
Ethical assumptions	
What value does control ultimately serve?	Coherence of multiple narratives
What is the nature of human intentionality?	Creative, enacted meaning
What consequences should control have when implemented in organizations?	Encourage storytelling practices

storytelling practices take, their significance for organizational control can only be fully appreciated from the standpoint of the integrated view that a narrative perspective ultimately incorporates. Table 2.2 summarizes the assumptions underlying a narrative perspective on organizational control.

Conclusion

This story began in the distant past, with the founding of ancient organizations, with the beginning of politics, economics, and enterprise intended to pool risk, along with the collective joining of forces to take actions promising beneficial returns. As collective efforts take place, patterns of interactions emerge between and among individuals and groups, as well as agency relationships between people, groups, organizations, and technologies. Provisionally, people

begin to estimate a specific set of actions and their relative value for themselves and agency relationships. As the value associated with particular actions is discussed among those concerned, sensemaking processes gradually constitute emergent control mechanisms. As the value of particular actions is imposed on to a group rather than discussed, rules act as constraints, and actions can be differentiated in terms of the extent to which they conform with expectations or not. In such situations, conflict often emerges, and sooner or later the organization risks spiraling out of control.

Whatever the specific control mechanisms might be (i.e., formal or informal, or based on market, hierarchy, or clan, etc.), their significance is communicated and explained to others through narratives that also acknowledge agency relationships. For this reason, we suggest the narrative is more than a means of advancing informal control mechanisms. Specifically, narratives provide the medium through which organizational control is performatively enacted, implemented, and transformed through practice. Although recent organizational control studies have begun to address this phenomenon, we suggest that future researchers must reflect upon the ontological, epistemological, and ethical assumptions that they make. By reflecting critically on what control is, how it can be known, and why it is pursued, scholars can more precisely appreciate how and why distinctions are drawn between formal and informal, tacit and explicit, and emergent and designed organizational control. In turn, managers can develop and implement control systems by telling stories that are coherent across hierarchical levels and appropriate in environments that are increasingly characterized by uncertainty and dynamic change.

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