

Excavating Organizational Assumptions about Cultural Change: The Unintended Consequences of Safety Committee Initiatives

Critique de certains présupposés organisationnels liés au changement culturel : les conséquences inattendues des initiatives d'un comité de sécurité

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Résumé de l'article

Cette étude contribue à la littérature émergente sur l'interaction entre les comités de sécurité et la culture de sécurité organisationnelle. La création, la gestion et la maintenance d'une culture de sécurité dans une organisation requièrent un investissement significatif de ressources, notamment pour la création d'un comité de sécurité. L'impact de celui-ci dans l'amélioration des perceptions sur la sécurité est resté jusqu'alors relativement sous-étudié dans la littérature.

Cette étude s'intéresse à cette problématique et examine le rôle d'un comité de sécurité dans le département des opérations d'une grande université américaine. Notre objet est d'ouvrir de nouvelles perspectives quant à l'influence et l'impact de ces comités sur les perceptions des collaborateurs dans un processus global de changement de culture organisationnelle.

En déployant le modèle de culture organisationnel de Schein, nous avons sondé les croyances implicites d'une soixantaine de salariés interviewés. Les données recueillies ont révélé que l'allocation de temps et de ressources dans le comité ont créé une perception positive sur l'engagement managérial vis-à-vis de la sécurité. Les employés ont, ainsi, attribué au comité la majorité des actions relatives à la sécurité, alors qu'en réalité les initiatives concernées ont été portées par les managers et superviseurs travaillant directement sur le terrain. Une telle *surestimation de l'activité du comité* et *sous-estimation concomitante* de l'activité par les managers directs est une conséquence inattendue de la création du comité de sécurité. En effet, les employés ont collectivement attribué tout changement positif au comité.

Ceci a permis à celui-ci d'exercer une influence sur les postulats fondamentaux des employés; un prérequis, selon Schein, pour réaliser un changement de culture organisationnelle. Cette étude contribue donc à la littérature en avançant la notion que les *conséquences inattendues* peuvent fonctionner de trois manières différentes pour soutenir le changement organisationnel. Premièrement, elles peuvent promouvoir des résultats positifs; deuxièmement, elles peuvent révéler le pouvoir légitimant d'une 'main invisible' managériale; et, troisièmement, elles peuvent servir d'outil pour détecter et déterrer les postulats de base de la culture organisationnelle.

Excavating Organizational Assumptions about Cultural Change: The Unintended Consequences of Safety Committee Initiatives

Dora Gosen and Michelle Mielly

This study examines how committees influence employee perceptions of organizational cultural change. The existing literature has not sufficiently focused on the interplay between committees and organizational culture. To address this, we adopted Schein's model of artefacts, espoused values and assumptions as a theoretical backdrop to our case study. We followed the creation and development of a safety committee in the Facilities Management Department of an American university between 2014 and 2018. Our focus was to capture employee and managerial perceptions of committee initiatives.

The findings elucidate how an organization's heightened focus on a committee resulted in an unintended consequence: the coalescence of general *overestimation* of committee-directed activity and *underestimation* of managerial and supervisory initiatives. This unintended consequence served to uncover the hidden basic assumptions enabling organizational cultural change.

KEYWORDS: safety culture, committees, unintended consequences, organizational culture, facilities management, Schein's model.

Introduction

Committees are a vital facet of organizational life. This study examines how committee work is bound up in organizational cultural priorities and more specifically what role safety committees play in the development of a workplace safety culture. The prioritization of organizational safety culture comes after three decades of engagement by scholars, regulators and industry actors (Cooper, 2016). International agencies, regulatory bodies and companies have issued guidelines, policies, assessments and interventions designed to optimize such a culture (Schobel *et al.*, 2017). Safe operations are not a straightforward

matter of compliance with regulations and codes. They also depend on a host of dependent factors, including organizational design (Hopkins, 2007).

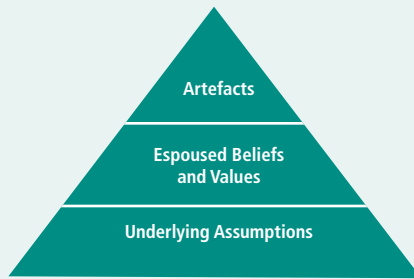
In this paper, we examine the interplay between a safety committee and safety culture in a university facilities management department. We conduct this examination by using Edgar Schein's organizational culture model (1985, 1990). Our findings indicate that safety committee initiatives impact organizational safety culture in some positive yet unintended ways that may reveal implicit organizational assumptions. This conclusion implies that unintended consequences can serve as a privileged window for viewing a core layer of hidden, implicit and unspoken assumptions.

Organizational Culture

The concept of culture has enjoyed a vibrant life in the organizational literature as a dynamic, transactional phenomenon (Douglas, 1970; 1978), as a "software of the mind" (Hofstede, 1991) or as a pattern of "shared basic assumptions" learned by groups to solve "problems of external adaptation and internal integration" (Schein, 1985). Table 1 displays Schein's model and summarizes the various definitions and perspectives on organizational culture in the literature.

TABLE 1

Model of Organizational Culture (Schein, 1985, 1990)



Organizational Culture Definitions

Author(s)	Vision of Organizational Culture
Geertz (1973)	Aims to understand the cultural and symbolic dimension of an organization.
Smircich (1983)	Depicts culture not as something that an organization "has" but rather as something that an organization "is."
Habermas (1987)	Emphasizes individually-held understandings among different organizational groups.
Schein (1992)	Posits deeply-rooted assumptions shared by members of an organization.
Alvesson and Sveningsson (2008)	Highlights the vagueness of cultural manifestations and the possibility of multiple and contradictory interpretations of cultural phenomena.

For Schein, organizational culture is comprised of three basic elements. First, *assumptions* represent culture's unconscious drivers. Second, *espoused values* reflect stated goals, ideals and beliefs and serve as explicit foundations for action (Argyris and Schön, 1996). Third, *artefacts* recombine culture's manifestations that can be observed, touched or experienced (Schein, 1985). The artefact layer refers to those observable yet difficult to interpret elements. Since Schein views culture as a learned set of behaviours and attitudes safeguarding against the stressors of ambiguity and change, organizational culture can be deliberately transformed, provided the right conditions are met (Schein, 1985; 1990). To date, inadequate emphasis has been placed on the *cultural dynamics* occurring at deeper implicit levels in the organization, with the bulk of attention focused on external cultural "symptoms" and desired behaviours (Schein, 1990; Hale, 2000). This unequal emphasis makes connecting safety culture to actual practice a challenge, thus requiring us to focus attention on the less obvious levels of culture.

Safety Culture

The juxtaposition of both 'culture' and 'safety' reminds practitioners and researchers that accidents are not exclusively due to human error, technical malfunction or environmental factors. They are rather embedded in broader organizational and managerial attitudes, values and behaviours (Reiman and Rollenhagen, 2018). 'Safety Culture,' a term coined by the International Nuclear Safety Advisory Group (INSAG) after the 1986 Chernobyl nuclear accident, has been identified as a major causal factor in such disasters (Guldenmund, 2010; Chemical Safety and Hazard Investigation Board, 2016).

In the 1990s and again in the early 2000s, scholarly interest was revived in safety culture and produced empirical work (Reichers and Schneider, 1990; Cox and Cox, 1991; Guldenmund, 2000; Hale, 2000; Cooper, 2000; Richter and Koch, 2004). The growth of safety culture studies across a variety of disciplines has resulted not only in a multitude of definitions and constructs (Hale, 2000; Guldenmund, 2000; Hopkins, 2006; Choudhry *et al.*, 2007; Silbey, 2009; Myers *et al.*, 2014) but also in competing, if not contradictory, arguments and theories. This multiplicity has led to conceptual fragmentation: safety culture means different things to different researchers and practitioners (Cooper, 2016). For twenty years, scholars such as Zhang *et al.*, (2002), Guldenmund (2000), Hopkins (2006) and Antonsen (2009c) and Seixas *et al.* (2013) have sought to reconcile various understandings of safety culture. As illustrated in Table 2, the concept has continued to evolve in the literature (Choudhry *et al.*, 2007).¹

TABLE 2
Safety Culture Definitions

Authors	Safety Culture Definitions
Pidgeon (1998); Guldenmund (2000); Cooper (2000); Hale (2000)	Considered to be the part of the organizational culture that influences norms, values and behaviours.
Vredenburg (2002)	Occurs when management adopts values in line with employee actions.
Choudhry <i>et al.</i> (2007)	Exists when safety is every person's responsibility.
Lorenzo <i>et al.</i> (2009)	Refers to common values and behaviours of individuals and organizations in their commitment to health and safety programs to maintain a safe workplace.
Halligan and Zecevic (2011)	Is based on trust driven by a common safety vision and a belief in the effectiveness of preventative measures.

This scholarly community converges on one central tenet: a strong safety culture places a high priority on safety-related beliefs, values and attitudes (Cooper, 2000; Guldenmund, 2000; Short *et al.*, 2007). Researchers have recognized that safety management systems did not result in the expected safety gains. Written manuals often remain ignored or untouched (Reason, 2000). Safety culture has emerged to bring much-needed life to such systems (Hopkins, 2005), and a number of studies suggest that it plays an important role in anticipating workplace incidents (Clarke, 2000; Cooper, 2000; Hofmann and Stetzer, 1996; Mearns *et al.*, 2003; Zohar, 2000). With a poor safety culture, the workplace may suffer from more frequent mistakes, more tolerance for violations and greater management failure to recognize and focus on discrepancies. The resulting long-term vulnerabilities increase the potential for an adverse incident (Reason, 1998).² Based on the foregoing, we define 'safety culture' as an "approach improving everyday safety behaviours in the workplace and carried out by all organizational members who are united by common values and priorities on safety-related matters."

Safety Committees

Management research on committees has adopted a strong 'features' component: size, composition, procedures, structure, agenda and meeting minutes, meeting frequency and duration, scope, upper management participation and member training (Kochan *et al.*, 1977; Coyle and Leopold, 1981; Ontario, 1986; Tuohy and Simard, 1993; Eaton and Nocerino, 2000; Hall *et al.*, 2003). Other work has examined geographic and contextual factors (Lewchuk *et al.*, 1996; O'Grady, 2000; Milgate *et al.*, 2002), committee characteristics (Morse *et al.*, 2013), effective committee implementation (Seixas *et al.*, 2013) and factors facilitating or impeding committee success (Yassi, 2012). Regarding safety committees in particular, some studies point to their role in im-

proving safety performance (Parker *et al.*, 2007; Smitha *et al.*, 2001), although empirical evidence is scarce (Bryce and Manga, 1985; Milgate *et al.*, 2002) and therefore needed (Morse *et al.*, 2013). Forming a safety committee is a critical juncture in an organization's efforts to transform safety culture (Nielsen, 2014). Such efforts encompass activities aimed at identifying and emphasizing harm-reduction principles and practices (Vogus *et al.*, 2010). A crucial remedy to safety concerns, safety committees have been formed in many safety concerns, safety committees have been formed in many workplaces through employee involvement and empowerment (Nielsen, 2014). Workplace health and safety (H&S) committees, as well as worker H&S representatives, have widely been required by law. All this fuels the research focus on employee involvement in H&S decision-making (Walters, 1996a, 1996b; Eaton and Nocerino, 2000; O'Grady, 2000; Milgate *et al.*, 2002; Shearn, 2004). Whereas workplace politics have been described as an essential part of H&S decision-making processes (Walters, 1985), Hall *et al.* (2006) identified *knowledge activism* as the most effective aspect of H&S representation. Knowledge activists can persuade and challenge decisions by developing an arsenal of legal and scientific information aligned with expertise and competency in training, managerial reaction and communication (Walters, 1996c; Lewchuk, *et al.*, 1996).

Assessing Safety Culture through Models

During the period between 1986 and 2000, when safety culture studies flourished, it is noteworthy that few practice-oriented models emerged. The existing ones included Guldenmund's (2000) *organizational culture adaptation* model, Cooper's (2000) *reciprocal safety culture* model and Reason's (1998) *interacting sub-cultures incident analysis* model. All have been influential in guiding researchers, regulators and practitioners in developing organizational safety culture (Cooper, 2016). The relevance of Schein's research on culture has resulted in its application to safety culture studies (Guldenmund, 2018). A succession of reappraisals through new empirical settings and different methodologies has accompanied its broadening (Guldenmund, 2000; Glendon and Stanton, 1998; Furnham and Gunter, 1993; Johnson and Scholes, 1999). The model was however critiqued for the unidirectional relationship between "assumptions and attitudes and between attitudes and behaviors" (Cooper, 2000) and mediating or moderating variables would be needed to develop a more complex model (Lund and Aaro, 2004). Instead of distinguishing between each layer, the scholars revisiting Schein's model concentrated on the overall organization at large. By shifting attention to model application at the *committee* level, we answer the question of how safety committees influence organizational cultural change and impact employee perceptions.

Research Context

The question was answered through a case study at a private American university in a facilities department that consisted of shops and departments with skilled tradespeople performing tasks similar to those of construction workers (see Table 3). A growing stream of research on facilities management (FM) has examined facilities at institutions of higher education and the physical aspects to be managed (Lateef *et al.*, 2010; Kok *et al.*, 2011; Ogbeifun *et al.*, 2016). In this rarefied context of teaching, learning or research, the FM staff may feel invisible and under-appreciated. Management staff at university facilities are said to "...complain about a lack of recognition and appreciation for their hard work" (Ogbeifun *et al.*, 2016). The FM staff guarantee the conditions of physical amenities to the benefit of all and contribute to the overall attractiveness and life quality for every stakeholder (Lateef *et al.*, 2010). The university's onsite teaching and research mission would be greatly compromised without a high-functioning FM staff; ever-increasing tuition fees and expenses are associated with high expectations from stakeholders (Taylor and Braddock, 2007).

TABLE 3

Facilities Management at University's Shops and Departments

Facilities Departments
Campus Mail Center and Graphic Resources
Campus Operations
Campus Security and Parking Services
Carpenter Shop
Central Plant
Custodians
Electrical Shop
Facilities Design and Construction
Facilities Management
Facilities Stockroom
Gardeners
Heating and Air Conditioning (HVAC)
Lock Shop
Paint Shop
Plumbing Shop
Transportation
Utility Plant and Maintenance
Environment, Health and Safety

Safety issues in the construction industry prompted calls for improvement and a search for better approaches (Langford *et al.*, 2000), and these calls reverberated throughout the Facilities Management Department at the university under study. In an effort to gather information on how best to transform the existing safety committee, the Facilities Management staff administered a survey in 2013 in which 310 out of 369 employees (84%) completed 50 questions on their perceptions of safety culture. The results indicated that need-driven movements of staff between shops made the ordinary safety compliance mechanisms, *i.e.* procedures and inspections, either difficult to respect or even irrelevant. Consequently, management focused on establishing common values and behaviours by improving the prevailing safety culture (Halligan and Zecevic, 2011). A new safety committee comprised of employees and supervisors from facilities shops and departments was formed. Members were appointed by their superiors to serve three-year terms. The committee included a senior management member, appointed as the Chair by the Associate VP, and two advisory Environment, Health and Safety (EHS) representatives. The Safety Committee was divided into three different subcommittees, each of which addressed and reported on specific safety matters. After multiple subcommittee meetings, written guidelines were promulgated and shared with facilities supervisors. Performance was measured through metrics disseminated and collected by the EHS office, hence ensuring compliance with committee guidelines.

Organizational Investment in Safety

Trends in overall safety-related expenditures demonstrate the shift in organizational priorities in four specific areas. Table 4 details the expenditures for the years 2016 through 2018 and the changes to safety-related expenses: the Safety Expo and increases in the budget for training, protective equipment or committee members' time.

First, for the Safety Expos in 2016, 2017 and 2018, the expenditures were \$15,000, \$14,000 and \$15,000 respectively. The increase is a sign of growing financial support from management, since the original budget of \$10,000 in 2014 has been surpassed with each passing year. Second, the rules on Personal Protective Equipment (PPE) usage were relatively unfamiliar to individual shops and their workers, who lacked a variety in the choices and sizes of PPE. Expenditures for PPE were increased when the new guidelines were rolled out to cover protective equipment and relevant upgrades (see Table 4). Third, evidence of greater investment in safety can be seen in employee allowances: the cost of employees' time at committee and subcommittee meetings or other safety-related activities was three times higher than it had been with the former committee. Prior to 2014, only one hour per employee had been granted each month for committee meetings, and all safety training had been provided in-house by the

EHS office, with low attendance rates. With the new committee, a budget was set aside for safety training to be given by a third-party contractor. This move ultimately led to an annual \$23,000 investment in an online safety training platform, commencing in 2019.

TABLE 4

Expenditures Budgets after Safety Committee's Formation

Annual Expenditures	2016	2017	2018
Annual Safety Expo	\$15,000	\$14,000	\$15,000
PPE in Stockroom	\$3,720	\$6,136	\$8,073
Committee Member's Time	\$12,255	\$12,255	\$12,255
Training	\$10,000	\$11,000	\$12,500

Approach and Epistemology

We analyzed the formation and work of the Safety Committee using a phenomenological lens, observing the emergence of events, stories and objects as organizational phenomena.

Single Case Design

This approach has been used to explore various complex organizational processes, such as organizational identity (Dutton and Dukerich, 1991), corporate venturing (Burgelman, 1983) or sensemaking (Weick, 1993). Single case studies make it possible to achieve an in-depth understanding of complex organizational phenomena through privileged access to a specific phenomenon. We chose a quasi-experimental case study design (Yin, 2003) for two reasons: it is suitable for investigation of complex social processes, and it provides a context for better comprehension of invisible phenomena. Along the lines of the "idiographic single-outcome case study," the explicit goal is not generalizability but greater understanding of the case (Eckstein, 1975). Pursuant to the qualitative tradition of focusing on "causes of effects," as described by Goertz and Mahoney (2012), we sought out the "causes" attributable to the case's outcomes; i.e., the "effects."

Data Sources

This case study was based on 61 employee interviews, field observation notes, and archival data (an employee survey, a committee charter, official correspondence, meeting agendas, meeting minutes, budget allocation data and performance metrics: see Table 5). Semi-structured, open-ended inter-

TABLE 5
Data Sources

Source Type	Number	Collection Methods	Population(s) under Study	Analysis Methods
Baseline Survey	310 individuals	Manual via printed survey forms	Supervisors and employees	Scientific Method used by Council National Safety
Research Interviews with Safety Committee Members	16 individuals	Convenience, semi-structured using interview guide	Committee members	Keyword frequency, narrative analysis, thematic categorization, axial coding
Research Interviews with Facilities Supervisors	15 individuals	Convenience, semi-structured using interview guide	Supervisors	Keyword frequency, narrative analysis, thematic categorization, axial coding
Research Interviews with Facilities Employees	28 individuals	Convenience, semi-structured using interview guide	Facilities employees Committee members	Keyword frequency, narrative analysis, thematic categorization, axial coding
EHS Director	One Interview	Convenience, semi-structured using interview guide	Environment, Health and Safety Dept.	Keyword frequency, narrative analysis, thematic categorization, axial coding
Committee Chair	One Interview	Convenience, semi-structured using interview guide	Facilities Mail Services	Keyword frequency, narrative analysis, thematic categorization, axial coding
Archival Documents	Committee documents including charter, offer letter, meeting agendas and minutes, budget allocation notes, performance metrics guidelines, and observational fieldnotes	Purposive, keyword-driven	Facilities employees	Keyword frequency, thematic categorization, axial coding
Observational Notes	Ethnographic notes on observations of committee and safety-related meetings	Participant observation Naturalist perspective	Safety Committee and sub-committee members	Keyword frequency, narrative analysis, thematic categorization, axial coding

views enabled us to convey not only the participants' descriptive thoughts and experiences but also their life experiences in the workplace at the deeper layers of organizational culture (Schein, 1990). This variety of data sources made possible a granular level of detail that cannot be accomplished through multiple cases or through large-sample statistical studies. Following organizational process research examples (Van De Ven, 1992; Langley, 1999; Langley *et al.*, 2013), we focused on "how and why things emerge, develop, grow, or terminate" (Langley *et al.*, 2013: 1). Archival data were supplemented with memos drafted from longitudinal observations of committee, sub-committee and preparatory meetings held between the chair and the EHS representatives.

Interview Procedure, Guidelines and Transcription

Fieldwork and data collection were conducted by the lead author, who, as a safety engineer, had a deep understanding of the contextual background. A total of sixty-one individual semi-structured interviews were conducted with fifty-nine employee participants and two managers, each lasting between thirty to sixty minutes. Interviews were held with all sixteen committee members and all fifteen facilities shop supervisors seen as organizational safety role models (Fleming *et al.*, 1996; Mattila *et al.*, 1994). Because employee involvement in decision-making appears to be a key factor in safety research (Simard and Marchand, 1995), interviews included one to two employees from each shop, thus adding 28 additional participants. Cross-sectional insights were gained through two longer in-depth interviews with the committee chair and the EHS director.

Participants were briefed on the study's objectives and asked for permission to record. These files were transcribed verbatim. Timestamps were applied to the most relevant passages. Supplemented with the interviewer's memos, transcripts were reviewed line by line through research-question-related themes. The themes were captured through first-order codes for the timestamped segments. This initial coding resulted in over 1,200 first-order codes that were reduced and consolidated as described below.

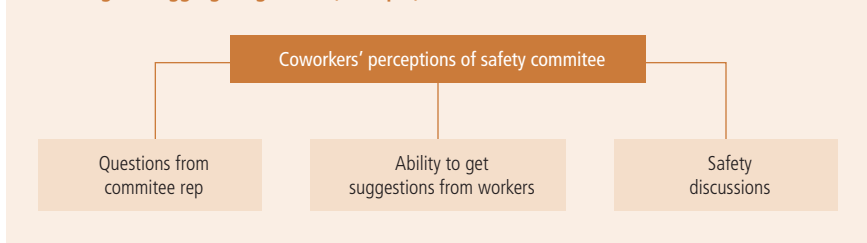
Open coding for textual thematic analysis (Strauss, 1987; Strauss and Corbin, 1990) enabled us to develop substantial descriptive codes for the various phenomena. Interview transcripts were uploaded to Atlas.ti. We reduced the large number of first-order codes by identifying similar data segments and placing them under broader common headings. We performed code-name merging on the first-order data segments in Atlas.ti and then created second-order thematic codes under which the first-order codes were categorized. Next, we examined the coded themes and their internal relationships (in terms of co-occurrences) to detect patterns and thematic overlap. At one point, we reached data saturation

(Fusch and Ness, 2015) and were applying pre-existing codes without exception. This led to 85 first-order codes.

We then sorted the codes for inclusion into either the *artefact* category or the *espoused values* category (Schein, 1984). We examined code labels with high and low frequencies to determine whether they could be combined or whether a new common category label was required. Codes were merged under a common higher conceptual code label or “code groups.” This iterative process resulted in 12 second-order codes, which were then recombined and collapsed to form 10 final second-order code groups (see Figure 1). Further analysis and reduction of the second-order codes resulted in two overarching aggregate codes (see Figure 2).

FIGURE 1

Dividing and Aggregating Codes (example)



Results

Following Nielsen’s (2014) example, the safety culture concept could be classified under Schein’s three layers: *Artefacts*, *Espoused Values* and *Assumptions*. The artefact level of organizational safety culture was evaluated through the number and frequency of safety meetings per period. The espoused values reflected explicitly stated goals and ideals. The basic assumptions were identified by analyzing the codes under the artefacts and espoused value labels.

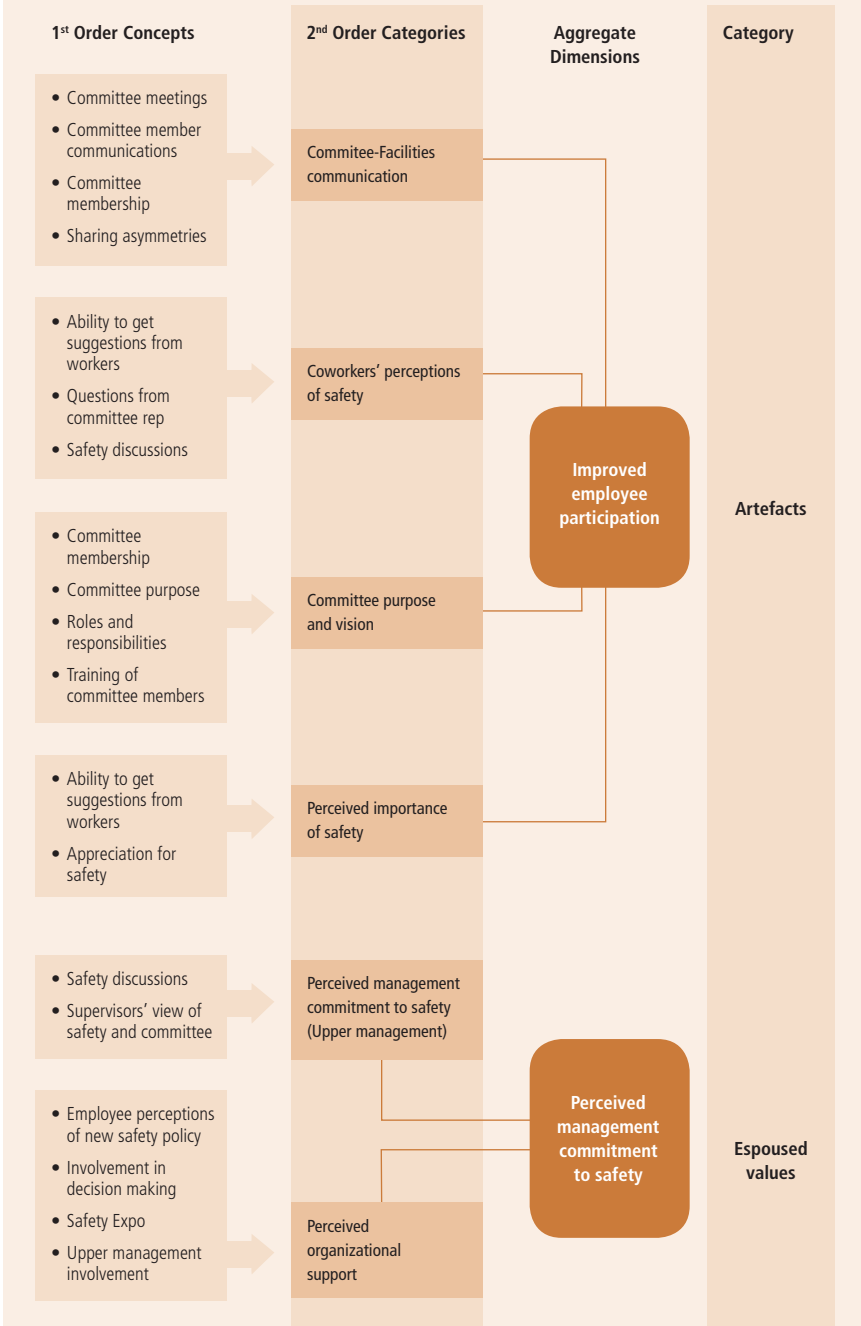
Artefacts

In appearance, the committee had uniform representation. In reality, it offered scant opportunities for full and equal contributions from all committee members.

Meetings and Inclusiveness in Safety Inputs

Data from committee meetings and minutes agreed with survey findings and Safety Expo matters (described below). Meetings also involved annual report descriptions of their accomplishments. Respondent data revealed asymmetrical

FIGURE 2
Code Reduction



and mainly top-down information flows at the meetings: the chair and close advisors initiated and guided conversations. Regular committee members felt less influential in the idea-sharing *fora*. Committee members expressed a need for more information sharing by departments about safety deficiencies at meetings: "I don't come back with anything or any feedback. It's all high-level management stuff. We should be able to share. We lost members because of this." Another representative, referring to himself as "the eyes and ears" of his shop, noted the need for more voices from grassroots people.

Training and Safety Discussion

A majority of participants deemed safety training to be deficient in two focus areas: 1- inconsistencies in implementing safety practices; 2- lack of a forum for regular group safety discussions. Committee members noted inadequate or nonexistent training. Workers lamented being "thrown in" to the job. Regarding training for safety practices, employees developed such practices from their own experiences and common knowledge as a result of "...being aware of their surroundings." Supervisors credited training and PPE as the main means to ensure employee safety; "I ensure their safety by ensuring that they're wearing PPE." Data suggested that the informal discussions on safety lacked a scripted protocol or deliberate process orientation and took place only *ad hoc*.

Safety Expo

Another conspicuous artefact is the annual 'Safety Expo,' which was created to facilitate safety improvements and raise awareness. This event has positively influenced employee perceptions. One electrician conceded that the Expo "...fosters awareness. Puts it in your mind. That's half the battle of safety, putting it in your mind." The Paint Shop Supervisor concurred: "the Expos have been opening up people's eyes." The exposition acted as a culture-building tool to "keep people safe. The committee has been effective in improving safety culture by bringing more awareness," noted a carpenter shop employee.

Espoused Values

The "espoused values" level of culture focuses on those explicit, conscious areas of organizational life that govern members' discourses and attitudes. Participants acknowledged the importance of safety in their jobs and the improvements since the committee's formation. "Safety awareness has changed drastically. Before we didn't pay attention and now it is really, really good," stated one participant. Regarding the committee's role and purpose, participants agreed on the need to promote safety through better internal communication.

PPE Awareness

The push for PPE had raised awareness, particularly of job-specific guidelines. A carpenter shop employee noted that “[p]eople are more aware of the type of PPE they need, the supervisor is stricter. He lets us know.” A painter concurred: “We are pushed to use PPE now.” The Plumbing Supervisor made the same point: “We’ve spent much more on PPE and safety equipment in the past couple of years. It’s a different culture now.” An electrician added that PPE, like test gloves and ear plugs, had not been used three years prior, but now were. Employees from the central plant, mail services and plumbing shop attributed greater PPE usage to heightened awareness. Although supervisors did not recall the specific PPE guidelines, their expectations for their employees and for PPE usage had shifted. For example, the PPE audit form, initially required for compliance, was seen by employees as a sort of safety mechanism. Whereas they had viewed it more at the beginning just “as a means of satisfying” management, it then began “slowly moving to reinforce their own benefit,” according to the Carpenter Shop Supervisor.

Training and Incident Investigation Priorities

Interviews revealed a perception of little or no improvement in the training and incident investigation guidelines. The majority were uncertain as to how to report an incident. A paint shop employee questioned why near-misses were never investigated: “A cart almost ran into our cart. We reported to [the] supervisor but heard nothing after that.” This perception of unclear incident-reporting mechanisms was echoed by a custodial employee: “We complete [the] report and send it to HR; if we don’t find the boss, we go to HR. If no one answers, then [we go to] security.”

Among the various shops, additional inconsistencies became apparent for new employee training. Relying on notification from their EHS representatives, the majority of supervisors ignored the compulsory training. Supervisors from the lock shop, mail services and plumbing shop observed dependency on EHS representatives to determine requirements. Survey metrics confirmed low participation in both incident investigation and training.

Committee-Driven Safety Climate

The data showed a shared perception of an overall improvement in safety since committee formation. All interviewed employees indicated significant improvements in safety awareness and performance during 2015-2017. For a carpenter shop employee, people seemed to “see safety differently.” They were more conscious of their rights and “what is available to them...

They yell 'safety' when I am around." An HVAC representative confirmed this impression: "The committee is benefiting everyone because everyone associate[s] safety with the committee," while some representatives felt increasingly perceived as internal safety advocates. As one noted: "[p]eople now, and not before, come to me with safety questions." A central plant representative mentioned that, "I have been acting as the safety officer in my area. For example, we discuss hazardous waste storage and PPE (arc flash PPE). These conversations happen because I am the rep. All of this is because of the committee."

The data on safety climate revealed that employees and supervisors possessed distinct perceptions of the committee's work.

Employee Perceptions of Safety Climate

Irrespective of the committee's actions, employees uncritically praised it for the positive changes made. A plumbing shop employee mentioned that the committee enabled him to obtain repairs to a ladder. A central plant employee also applauded the committee for improved ladder safety: "Things have changed in the past couple of years. For example, people ignored ladder safety, but they're better now." Plumbing shop employees and electricians were thankful that "the committee took care" of a longstanding blind-spot issue through installation of a blind-spot mirror. More general and abstract appreciations were also given. A ground shop worker said that the committee had given employees "more opportunities to voice their concerns." A final example is this plumbing shop employee's observation that "the committee has helped a lot with issues. Earlier issues weren't taken care of but now they are. For example, wood-built structures on roofs were dangerous to walk on. Aluminum bridges and ladders that are much safer have been installed."

Supervisor Perceptions of Safety Climate

Supervisors also commended the committee for improvements to overall safety culture and a perception of enhanced safety. The Transportation Supervisor credited the committee with fewer incidents of employees 'phoning while driving' around campus, whereas the Paint Shop Supervisor credited it with such accomplishments as setting up "respirator fit testing and training." The Electric Shop Supervisor mused that, "I can't put my finger on what the committee has done to improve safety, but it's just pushing safety forward. The committee has grown without knowing; just like your child growing without you noticing the growth until they have bloomed."

Perceived Management Commitment

One code included within *espoused values* is supervisor perceptions of upper management's commitment to safety. For example, the management staff required that employees and supervisors post a safety statement across various locales. Supervisors saw the safety statement as the committee's "outlining core values" (Carpenter Shop Supervisor). To them, the "committee is like the State-ment because it gives people the idea that safety matters" (Electric Shop Super-visor). Custodial supervisors were also positive: "It's coming from the boss! This tells me that upper management cares about safety, not only about accidents," noted one. "It's really good that upper management is thinking about this. They think because we are custodial staff, no one cares," said another. This perception was further evident when employees conflated resource allocation by manage-ment with *actual involvement* by management. Such a perception was triggered by the VP's inclusion of the Safety Committee's events and activities in quarterly meetings, as recalled by the Carpenter Shop Supervisor. In addition, the manage-ment's general push for PPE inspection-form compliance helped create a percep-tion of a *caring committee*. One supervisor remembered that one of the 'big bosses' asked "our guy why he wasn't wearing his gloves. They care about us." Further evidence of the 'over-crediting' effect transpired in employee impressions of organizational support. Most perceived their supervisors as concerned for their well-being and valuing their opinions. Phrases such as "I have never been told 'no' on safety" was echoed by many mid- to lower-level employees.

Basic Assumptions

The results of the artefacts and espoused values indicate changes in surface manifestations: training, involvement and inclusion in committee meetings, safety equipment usage and general attitudes. Although 'over-crediting' is an unexpected and unintended consequence of the committee's initiatives, it helped uncover the hidden assumptions at the core of organizational culture.

Discussion

The above themes reveal that committee activities fostered the emergence of new safety-related artefacts and contributed to the espoused or 'conscious' values layer of organizational culture. This outcome indicates a positive change to perceptions of managerial commitment, which in turn affected the hidden assumptions underlying an organizational cultural change (Schein, 1990). We found that organizational safety culture artefacts, e.g., training, discussions and the Expo, were established, disseminated and shared by committee mem-bers. Other artefacts, such as issue resolution procedures, committee commu-

nications and safety training, were to be improved (see Table 6, Safety Culture Assessment and Development Indicators). At the *espoused values* level, the committee appeared effective at improving safety culture through its work to push forward increased awareness.

TABLE 6
Safety Culture Assessment and Development Indicators

Cultural Layer	Indicators	Means of Assessment	Employee Perception
Artefacts	Number of Safety Committee meetings, agenda, and minutes	Agenda / meeting minutes	Took place
	Issues addressed and resolved	Interviews / agenda / meeting minutes	Needs improvement / nonexistent
	Safety Committee's composition	Committee Charter / interviews	Uniform representation
	Safety statement	Statement / interviews	Established
	Efforts made to ensure safety	Interviews	Established
	Safety discussion	Interviews	Needs improvement
	Communication from Safety Committee to Facilities	Interviews	Needs improvement / nonexistent
	Ability to get suggestions from workers	Interviews	Needs improvement / nonexistent
	Training for Safety Committee members	Interviews	Needs improvement / nonexistent
	Safety Expo	Meeting minutes / interviews	Raised awareness of safety
Espoused Values	Perceived organizational support	Interviews	Improved
	Perceived importance of safety	Interviews	Important
	Safety climate	Interviews	Raised awareness of safety
	Management commitment	Interviews	Improved
	Understanding committee purpose and vision	Interviews	Improving safety culture
	Formal safety policies and objectives: guidelines <i>Employee training</i> <i>PPE</i> <i>Incident investigation</i>	Interviews/ forms Interviews/ forms Interviews/ forms	Needs improvement Improved Needs improvement
Basic Assumptions	Determined by analysis of artefacts and espoused values		Unintended consequences of Safety Committee's formation

Excavating Basic Assumptions

We uncovered assumptions about safety by scrutinizing our ‘surprise’ finding: the unanticipated ‘over-crediting’ of all committee-related activities. Employees from different departments attributed a multiplicity of improvements to the committee: awareness of ladder hazards, blind-spot installations, employee driving and phone usage, respirator testing, and greater employee inclusion in safety matters. Although the committee in reality did nothing to directly address those concerns, its mere existence generated an implicit association between awareness-raising and implementation of actual safety initiatives.

Unintended Consequences ... and Giving Credit where Credit Is Not Due

The ‘mental shortcut’ implicitly associating all safety improvements with the committee (Greenwald, Banaji and Mahzarin, 2017) is a form of positive bias. Supervisors and actual change agents in the field shared similar evaluations. Most of them attributed positive safety gains to the committee’s influence. That assessment was an *unintended consequence* of committee initiatives: one of those “unforeseen or unpredicted results of an action” (Harris and Ogbonna, 2002) or “unanticipated outcomes of attempts to create change in complex social systems” (Merton, 1936). The organizational literature has highlighted the possibility of unintended consequences (Mandelbaum, 1999; Giddens, 1984; Globerman, 2000; Lal, 1998), leading to a consensus that change initiatives are likely to produce unanticipated negative consequences (Ogbonna and Harris, 1998; Anthony, 1990; Martin, 1992; Harris and Ogbonna, 2002). Lastly, unintended consequences reveal those deeper cultural assumptions in Schein’s model that would otherwise remain hidden.

Contributions, Limitations and Future Directions

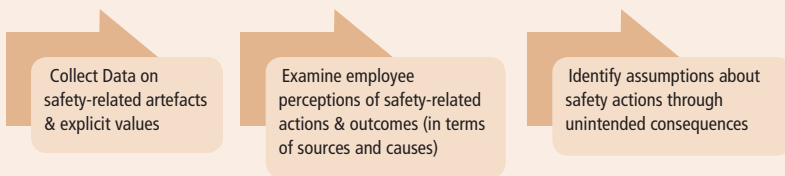
This study contributes to relevant scholarship in three ways. First, it juxtaposes *unintended consequences* with *positive outcomes*. In this case, even when group attribution errors (Allison and Messick, 1985) were detected and certain safety actions were incorrectly ascribed to the committee, the organization ‘won.’ Second, this study demonstrates how formation of a committee can provide management with a proxy and encourage positive perceptions of managerial commitment. The committee can impact the deeper beliefs of employees about its work. The committee’s internal core value is organizationally leveraged without any direct actions. Lastly, unintended consequences enable the *detection and ‘excavation’ of hidden assumptions*. Whereas Schein’s *artefacts and espoused values* are more identifiable through a case study approach,

this paper has shown that uncovering the assumptions requires special detective work. By focusing on the unintended consequences in employee actions, researchers can draw a clearer picture of the assumptions driving organizational culture's deepest layers.

Such 'overcrediting' of the committee meant overlooking the actual work done by organizational members. This disregard naturally could prove irritating for those deserving the credit. Yet employees deeply 'believed' in their management's positive intentions and general concern for their safety. Managers and supervisors were assumed to be equally capable of shaping the immediate environment and making it safer because they were deemed powerful enough. This conflation of committee and managerial actions is linked to the concept of *reputational spillover* and the effects of reputation in terms of performance appraisal (Fong and Lee, 2012), corporate crises and country reputation (Ingenhoff *et al.*, 2018) or grant provision and reputation (Willems *et al.*, 2019). Such spillover of employee perceptions provides the organization with the benefits of unintended consequences. Retroactively examining their origins enabled us to conceptualize the process through which this effect can serve as a heuristic for uncovering organizational cultural assumptions (see Figure 3).

FIGURE 3

Uncovering Assumptions through Unintended Consequences



Managerial Implications

This paper also contributes to the practice and work of professionals in organizations. First, with the rise of safety committees (Morse *et al.*, 2013) and the significant amount of resources dedicated to them, practitioners need to develop a means of ensuring management commitment to safety and encouraging employee participation. Second, by identifying, foreseeing or imagining *unintended consequences*, organizations can identify obstacles and untested hypotheses about 'how things should be.' In other words, practitioners should seek ways to embrace and leverage the value of unanticipated and unintended organizational outcomes.

Limitations

Other unseen or overlooked factors might have contributed to cultural changes within the Facilities Management Department and its staff. Our exploratory phenomenological case study may thus not be generalizable. Its empirical setting, being in the United States and at an institution of higher education, may limit our findings to countries with equally high safety standards. Furthermore, our interview questions may have influenced, biased or bounded employee responses by focusing on safety concerns.

Future Directions

By conducting case studies in different organizational settings using Schein's model to further understanding of these results, it will be possible to shed light on context-specific issues in organizational culture research. The emergence of further work on unintended consequences could provide an epistemological window into organizational assumptions. Further research work is needed in general on the influence of committees on organizational norms, values and assumptions. The impact of committee-related initiatives on employee perceptions (e.g., over-crediting, under-crediting, conflation of management staff with the committee, etc.), specifically regarding *unintended consequences* of these initiatives, should also be further researched. Lastly, additional studies could illuminate the interplay between the committee and management staff in cultural change scenarios.

Conclusion

This study reveals how safety committees influence organizational cultural change and impact employee perceptions. With Schein's cultural layers providing a heuristic for assessing organizational culture, we identified a novel means of uncovering organizational assumptions at the deepest layer. We argue that this is a crucial, and yet elusive, stage in driving organizational change forward. We thus infer that basic organizational cultural assumptions can be *inductively* identified. Most studies on organizational change examine assumptions *deductively*, as generalized premises focusing on how attitudes are shaped. Explicit factors may often be "decoys" masking the actual assumptions, if symptoms and causes are conflated. Unintended consequences can help us identify the deeper assumptions driving organizational decision-making by providing a heuristic for organizational sense making and for grasping the organizational unconscious. Implicit, unspoken assumptions often inhibit or slow down adoption of initiatives for change or even maintain individuals in unproductive attitudinal 'ruts.' To reveal organizational assumptions and to understand them better, one can examine them through the lens of unexpected, unintended or surprise outcomes.

Notes

- 1 The definitional inconclusiveness has led scholars such as Hopkins (2006) to highlight organizational cultural influences on safety as one component of the broader organizational cultural context. Since safety culture is a commonly used notion in safety management, it is pertinent to focus on the special nature of culture (Reiman and Rollenhagen, 2018). The concept of organizational culture faces the same definitional issues and divisions (Giorgi *et al.*, 2015). If 'organizational safety' is adopted in the place of 'safety culture,' it risks reducing the significance of occupational safety by placing it at the same level as operational matters (e.g., product quality, customer services, etc.) where operational failure is nowhere near as tragic (Cooper, 2016).
- 2 Cooper's 2000 study on Safety Culture provided our understanding of the subject with conceptual clarity by including the language and wording of official governance organizations, such as the UK Health and Safety Commission (HSC, 1993). Noting that most scholars have adopted "normative belief"-oriented definitions of safety culture that focus on "the way people think and/or behave in relation to safety" (p. 114), Cooper further distinguishes between two main approaches. *Interpretivist approaches* focus on the emergent, socially-construed properties of social groups (with safety culture as a *product* that emerges from a social group in the workplace). *Functionalist approaches* view safety culture as a *pre-determined function* that managers and practitioners identify, implement and favour when fostering its emergence (Cooper, 2000: 114). The approach of this case study is a combination of the two. Safety culture holds a pre-determined 'purpose' or function as directed by the Facilities Management staff and is simultaneously something emerging as a behaviour and attitude from the dynamic interplay of managers, workers and the Safety Committee.

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SUMMARY

Excavating Organizational Assumptions about Cultural Change: The Unintended Consequences of Safety Committee Initiatives

This study contributes to the emerging literature on the interplay between safety committees and employee perceptions of organizational safety culture. Creating, managing and maintaining a safety culture in organizations involves significant investment in the establishment of safety committees. The role of such committees in improving safety culture perceptions has remained underexplored in the safety management and organizational literature.

This study addresses that gap and focuses on a safety committee within the facilities management operations of a large American academic institution. The objective is to generate understandings of how a committee can influence organizational cultural change and impact employee perceptions of safety.

Using Schein's organizational culture model as a prism, we unpack the employees' implicit cultural beliefs. Data from over sixty employee interviews revealed that formation of the Safety Committee resulted in unintended consequences in terms of employee perceptions.

Employees attributed most safety-related actions to the committee when, in fact, the managers and supervisors had actually carried them out. This *overestimation* of committee activities and concomitant *underestimation* of managerial actions by employees was an unintended consequence of establishing a committee. Employees, in fact, collectively attributed all positive changes in the organizational culture to the committee. The committee ultimately influenced the employees' basic assumptions, such change being, according to Schein, a prerequisite for organizational cultural change.

This study, therefore, contributes to the literature by proposing that unintended consequences can operate in three different ways to support organizational change. First, unintended consequences can promote positive outcomes; second, they can reveal a new understanding of committees, which under certain circumstances can act as a proxy for management and encourage positive perceptions of managerial commitment. Lastly, unintended consequences can provide a means to detect and 'excavate' hidden, implicit assumptions that drive organizational culture's deepest layers.

KEYWORDS: safety culture, committees, unintended consequences, organizational culture, facilities management, Schein's model.

RÉSUMÉ

Critique de certains présupposés organisationnels liés au changement culturel: les conséquences inattendues des initiatives d'un comité de sécurité

Cette étude contribue à la littérature émergente sur l'interaction entre les comités de sécurité et la culture de sécurité organisationnelle. La création, la gestion et la maintenance d'une culture de sécurité dans une organisation requièrent un investissement significatif de ressources, notamment pour la création d'un comité de sécurité. L'impact de celui-ci dans l'amélioration des perceptions sur la sécurité est resté jusqu'alors relativement sous-étudié dans la littérature.

Cette étude s'intéresse à cette problématique et examine le rôle d'un comité de sécurité dans le département des opérations d'une grande université américaine. Notre objet est d'ouvrir de nouvelles perspectives quant à l'influence et l'impact de ces comités sur les perceptions des collaborateurs dans un processus global de changement de culture organisationnelle.

En déployant le modèle de culture organisationnel de Schein, nous avons sondé les croyances implicites d'une soixantaine de salariés interviewés. Les données recueillies ont révélé que l'allocation de temps et de ressources dans le comité ont créé une perception positive sur l'engagement managérial vis-à-vis de la sécurité. Les employés ont, ainsi, attribué au comité la majorité des actions relatives à la sécurité, alors qu'en réalité les initiatives concernées ont été portées par les managers et superviseurs travaillant directement sur le terrain. Une telle *surestimation de l'activité du comité* et *sous-estimation concomitante* de l'activité par les managers directs est une conséquence inattendue de la création du comité de sécurité. En effet, les employés ont collectivement attribué tout changement positif au comité.

Ceci a permis à celui-ci d'exercer une influence sur les postulats fondamentaux des employés; un prérequis, selon Schein, pour réaliser un changement de culture organisationnelle. Cette étude contribue donc à la littérature en avançant la notion que les *conséquences inattendues* peuvent fonctionner de trois manières différentes pour soutenir le changement organisationnel. Premièrement, elles peuvent promouvoir des résultats positifs; deuxièmement, elles peuvent révéler le pouvoir légitimant d'une 'main invisible' managériale; et, troisièmement, elles peuvent servir d'outil pour détecter et déterrer les postulats de base de la culture organisationnelle.

MOTS-CLÉS: culture de sécurité, comités, conséquences inattendues, culture organisationnelle, gestion des installations, modèle de Schein.