Chapter 6
A Pluralist Approach to Safety Culture

Safety Cultures as Management Tools and as Professional Practices

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Abstract Managing safety culture appears to be a very difficult task, including in the context of high-risk industries. A clear opposition exits between academics about this issue. On the one hand some deny the possibility for an organization to “manage” any kind of culture. Doing so would just be a manipulation of groups’ and individuals’ behaviors that has nothing to do with culture but refers to coercive power and domination. On the other hand, some build up theoretical frameworks and good practices to support the development and the maintenance of a strong and homogenous organizational culture such as safety culture. Our contribution to this debate is to open a way between these two opposite approaches. The aim is to introduce a pluralist approach of safety culture that makes its management possible, meaningful and valuable for both managers and practitioners. It is based on the clear distinction between two sets of safety cultures: Safety-Culture-as-Tools (SCT) and Professional-Safety-Cultures (PSCs).

Keywords Safety culture · HRO · Integration · Differentiation
Professional and occupational communities · Tools · Boundary objects
Discussion spaces

1 Two Types of Cultures: Safety-Culture-as-Tools (SCT) and Professional-Safety-Cultures (PSCs)

Safety-Culture-as-Tools (SCT) is a set of management tools designed to create a single “organizational” safety culture. The formal Safety Culture as promoted by the IAEA in the nuclear industry (INSAG 4) in 1991 and officially adopted and implemented since then can actually be defined as a “management tool”. This culture
is supposed to be learned, shared and implemented by every individual in the organization. It is an espoused set of homogeneous values and formal practices oriented towards safety and mostly defined and enacted by the top and middle-managers of the organization. It is embedded in various techniques and tools, such as “risk assessment”, “questioning attitude”, “transparency” … but also in official discourses about safety, such as “safety first”. This Safety-Culture-as-Tools is also represented by the formal safety indicators and the ways they are used to balance other performance indicators.

Considering safety culture as a management tool supposes to have a clear representation of what a management tool is. A management tool is an artifact that promotes, influences and controls the actors’ behaviors in order to achieve a certain goal, which has been set by the managers or by the organization they belong to. Formal procedures of risk analysis are good examples of such SCT.

One of the main advantages of SCT lies in its rationality, homogeneity and alignment with the strategic and managerial orientations of the organization. Moreover, this kind of safety culture, mostly based on written documents, can easily be assessed and audited.

This also has limits and drawbacks, the main one being the possible lack of legitimacy and relevance. Practitioners who acquired safety expertise through their day-to-day activities may consider the official and formal safety culture as inadequate, because it is much too far from the realities on the ground. For them, SCT may just become a bureaucratic burden that makes it difficult to do a good job. A gap can progressively appear between this “espoused” SCT and the safety culture “in use” in practitioners’ communities.

By contrast, Professional-Safety-Cultures (PSCs) are multiple and located in working groups and professional and occupational communities. They encompass the knowledge, values, attitudes and practices created and mobilized in order to “do a good job” in a risky environment. They emerge through time, from shared experiences and evolve with collective learning processes. PSC is the expression of the ability of a group to successfully mix safety with other dimensions of industrial performances (faster, better, cheaper…) in their daily decisions and practices. For many academics it is the only genuine form of “safety culture”.

The multiplicity of PSC echoes the multiplicity of teams and communities of practice present in complex organizations. It is a key resource for the reliability and resilience of HRO\(^1\) (Weick, 1987). Indeed, based on a “sensemaking” perspective, the complexity and variety of the unexpected problems call for a high level of decentralization, diversity and differentiation within the socio-technical system just to make sure that people on the ground understand (make sense of) what is occurring, make the right decision and take the right action as quickly as possible. This is the main advantage associated with PSCs (Antonsen, 2009).

\(^1\)High Reliability Organization.
The limits of PSCs lie in their heterogeneity which may lead to potential horizontal conflicts between professional groups, and vertical conflicts with managers because they offer no managerial alignment. PSCs are socially regulated but not easily controllable and manageable (Table 1).

| Table 1 | Safety-Culture-as-Tools and Professional-Safety-Cultures |
|---------|----------------------------------------------------------|
| SCT     | PSCs                                                     |
| Origins and legitimacy | External knowledge, expertise and principles | Professional groups, day-to-day activities |
| Forms | Formal guides, tools and practices | Practices and expertise of professionals, technicians and practitioners |
| Organizational alignment | Guaranteed by the top-down approach | Not guaranteed due to the bottom-up approach |
| Associated risks | Lack of relevance = creation of a “fake” safety culture | Lack of coherence |

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2 The Complex Relationships Between SCT and PSCs

The existing literature opposes these two safety cultures, with SCT and PSCs competing for legitimacy and dominant position in the organization. SCT is often seen as a negation of PSCs, either as a result of managerial ignorance or by the will to tighten control over the employees. Therefore, the development of a strong formal SCT often creates tensions between managers and professionals or occupational groups. The latter tend to resist, appear reluctant to adopt the official SCT and defend their own PSCs. Managers tend to interpret it as a kind of “resistance to change”, a lack of rigor and safety knowledge that requires more training, management control and command. A vicious circle of mutual misunderstanding is at play. The transaction between SCT and PSCs is blocked and so is the possibility of improvements. We suggest that this vicious circle can be transformed into a positive interaction between SCT and PSCs, especially in the case of HRO.

The outcome of the competition between SCT and PSCs depend on their relative weights. Table 2 presents four configurations based on the combination of weak/strong SCT and weak/strong PSCs.

The first configuration is characterized by a lack of Safety Culture due to a weak SCT combined with weak PSC. It includes neither global nor local management of safety issues. It may exist in many industries but is unacceptable in high risk industries.

The second configuration is characterized by the domination of PSCs over SCT. The richness and diversity of the PSCs help the organization tackle safety issues within their local boundaries. But organizational problems arise when several professional safety cultures compete because several communities of practices
disagree about the diagnosis or solutions for the issue at stake. Without a strong integration process, this situation may lead to horizontal conflicts between professionals and the impossibility to build up acceptable compromise.

The third configuration is a bureaucratic Safety Culture generated by a domination of SCT over PSC.

The fourth configuration is the HRO Safety Culture characterized by the coexistence of a strong SCT and strong PSCs. As seen before, the competition between SCT and PSC can end up with a “vicious circle” of mutual delegitimization. The HRO model opens a way for a balance between a strong SCT and strong and multiple PSCs. Even if SCT and PSCs are potentially conflicting, we suggest that organizations such as HRO that require a strong and genuine safety culture are actively managing the combination of a strong SCT and a strong SCP.

Our analysis echoes the four types of safety cultures identified by Daniellou, Simard, and Boissières (2010, p. 102). Considering the importance of employee and management commitment for safety, they distinguish the “fatalist culture” (low level of commitment of both employees and management), the “integrated culture” (high level of commitment of both employees and management), the “management culture” (low commitment of employees but high for management) and the “professional culture” (high commitment of employees but low for management). Nevertheless, our analysis appears to be less focused on the level of commitment for safety than on the level of differentiation and integration of the safety cultures and the interactions and dialog between differentiated professional safety cultures and the integrated SCT.

| SCT   | PSCs                        | Strong                                      |
|-------|-----------------------------|---------------------------------------------|
| Weak  | (1) Lack of safety culture  | (2) Professional safety cultures            |
|       | Low level of differentiation| High level of differentiation                |
|       | Low level of integration    | Low level of integration                    |
|       | Vulnerability: unacceptable in high-risk industries | Vulnerability: lack of coherence, multiplication of conflicts, no strategic alignment |
| Strong| (3) Bureaucratic safety culture | (4) HRO safety culture                      |
|       | High level of integration   | Highly differentiated and highly integrated   |
|       | Low level of differentiation| Vulnerability: requires important            |
|       | Vulnerability: lack of relevance, inability to cope with complex problems | organizational slack that may be threatened by rationalization programs (cost cutting…)

Table 2 Four configurations of safety cultures
3 Organizing the Dialog Between PSCs and SCT

Following the Lawrence and Lorsch (1967) differentiation/integration model, we suggest that strong PSCs require strong SCT. In this model, the most successful firms competing in complex environments are both—and simultaneously—highly “differentiated” and highly “integrated”. Lawrence and Lorsch define differentiation as the state of segmentation of the organizational systems into subsystems, each of which tends to develop particular attributes in relation to the requirements posed by its relevant external environment.

A high level of differentiation is the organizational solution for remaining efficient in complex and changing environments. In a differentiated organization, each part develops its own skills, knowledge, ways to do things and finally its own language and culture. When the system becomes highly differentiated, the organization faces a substantial risk: the progressive lack of internal coherence, due to the growing fragmentation of the subsystems and the multiplication of internal misunderstandings and conflicts which may lead to a loss of control over the organization and even to a potential breakdown. Thus, integration is required to prevent this risk. Integration is defined as the process of achieving unity of effort among the various subsystems in the accomplishment of the organization’s task.

Management control systems and reporting practices are classical integration processes. Lawrence and Lorsch also mentioned the “organizational culture” as an important integration factor.

Applied to the sphere of safety culture, the various PSCs play the role of differentiation whereas SCT plays the role of integration. The stronger the PSCs become, the higher the risk of unsolved conflicts between professional groups is expanding. This calls for a strong integration mechanism. SCT may play this role. SCT can be a way for the professional groups to solve the conflicts they may have about safety valuations, diagnosis or solutions. Indeed, the dialog between PSCs is neither spontaneous nor easy to achieve when disagreements appear about safety issues.

The dialog has to be organized in order to build up acceptable local and temporary compromises between various competing communities of practice. In this perspective, two methods can fruitfully be explored. The first one is the design and implementation of “discussion spaces” (Detchessahar, 2013; Rocha, Mollo, & Daniellou, 2015) allowing the practitioners and the managers to discuss safety issues from their own professional safety cultures. The second way that may be interesting to explore is to see SCT as a “boundary object” (Star & Griesmer, 1989). Such objects (like maps, procedures…) facilitate the coordination and dialog between various professional groups and communities of practice (Tillement, Cholez, & Reverdy, 2009). They help them to deal with the internal boundaries of the organization. The SCT (the different tools in which the SCT is embedded) may
play the role of a boundary object for the different PSCs. In a sense, SCT is a kind of common language, focused on the minimal safety assumptions promoted by the management and shared by employees. In this way, a strong SCT doesn’t weaken PSCs. More precisely, a strong SCT plays an integration role that preserves the differentiation of safety culture produced by the plurality of PSCs.

4 Towards the Construction of “Hybrid” Professionals?

The tension between PSCs and SCT echoes the recent debate about “professionalism” versus “managerialism” in public administrations (Olakivi & Niska, 2017, p. 20):

Typically, professionals are presumed to resist managerial, economic and governmental requirements as alien intrusions on their professional autonomy (Noordegraaf, 2015). In recent academic debates, however, the image of resistance (e.g. Doolin, 2002) has made room for the notion of “hybridity” (see Noordegraaf, 2015). Instead of resisting managerial intrusions, professionals are seen to balance (Teelken, 2015) or navigate (Croft, Currie, & Lockett, 2015) between managerial and professional imperatives, objectives, interests and requirements (also Reay & Hinings, 2009; Denis Ferlie & van Gestel, 2015).

Olakivi and Niska (2017) suggest that professionalism and managerialism can be interpreted as two “overlapping discourses” in any professional work and organizational action. Such a combination of discourse would produce the emergence of “hybrid professionalism” (Noordegraaf, 2015) (i.e. a form of professionalism that complements organizational and managerial objectives).

Our analysis also suggests a form of hybrid professionalism, but what we see in the domain of safety culture is not just an overlap of two discourses, rather it is a discussion between various professional PSCs and a managerial SCT, which produces local and situated compromises that are beneficial for safety, without “hybridization”: the condition for the dialog is to have very clear, legitimate and differentiated PSCs and a strong and well-designed SCT.

5 Conclusion: Three Conditions for the Management of Safety Cultures in a Pluralist Approach

We suggest that “managing” safety cultures is possible and meaningful when it takes a pluralist approach. This may be possible under three conditions. The first is to cease to demand a compliant approach based on the homogeneous alignment of individual and collective behaviors on a single predefined referential. The second is to establish the legitimacy and the value of strong, local practitioners and professional cultures (PCSCs), rooted in day-to-day practices. The third is to implement
management tools (SCT) designed to articulate the diversified and differentiated cultures of practitioners and professional groups that work in high-risk technologies.

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