HSE culture in the petroleum industry: Lost in translation?

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ABSTRACT

Encouraging a sound Health, Safety and Environmental (HSE) culture is a regulatory requirement for petroleum companies operating on the Norwegian Continental Shelf. Although regulators in different industries have increasingly included safety culture in their regulatory repertory, it is still rare that regulators explicitly require sound cultures. In this paper we study how the requirement is 'translated' in two different petroleum companies, discuss why the translations differ and the extent to which they represent good organizational learning about HSE. Translation is seen as a form of organizational learning. The analysis is based on institutional theory, and a virus metaphor for adoption of organizational ideas.

The translations of §15 in the two companies differ considerably. There are also signs of translatory 'mutation' or drift from the original intentions behind the requirement. The different translations are explained by differences in histories, complexity and strategy between the companies.

The study illustrates the applicability of the translation concept for analyzing organizational learning for safety and the usefulness of a virus metaphor for evaluating learning processes.

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1. Introduction

The Norwegian government has stated that the petroleum industry should be world leading on health, safety and environment (HSE) (White paper no. 7, 2001-2002). The Petroleum Safety Authority in Norway (PSA) has an important role in pursuing this ambition through inspections, guidance and development of regulations.

Inspired by the nuclear and the aviation industries, culture became an issue of interest for the PSA around the turn of the millennium (Kringen, 2008) and was included as a concept in the PSAs Framework Regulation for HSE in 2001. The prevailing §15 in the regulation states that "A sound health, safety and environment culture that includes all phases and activity areas shall be encouraged through continuous work to reduce risk and improve health, safety and the environment." (PSA, 2011). In order to support the companies' efforts to fulfill the requirement, the PSA has released guidelines, a brochure, and generally communicated their expectations towards the industry in different meeting arenas. In spite of these efforts, the PSAs conceptualization of HSE culture is still open and equivocal. This may partly be due to the fact that culture is an abstraction in itself but also because the PSA underscores that the requirement (§15) is functional, leaving it up to the companies to specify what constitutes 'a sound HSE culture' (PSA, 2003: 6).

The equivocality of HSE culture opens up the concept for different *translations* and adaptations to the petroleum companies' internal values, structures and processes. It is evident that the industry has responded in different ways to the requirement, introducing different programmes that focus on behavior or safety management in general (Le Coze and Wiig, 2013), but also more holistically oriented approaches (e.g. Vikland et al., 2011). Translation used in this figurative sense refers to the more or less deliberate transformation of practices and ideas (HSE culture in our case) that takes place when different actors try to transfer and implement them (Røvik, 2011: 642).

The general contribution of this paper is the illustration of how the use of the translation concept gives additional insights into organizational learning as a process and how contextual conditions influence the learning process. Granerud and Rocha (2011) describe organizational learning as the sharing and application of ideas, techniques and experiences which can be generated within a company or brought from the outside. We see such learning as situated (Lave and Wenger, 2005), or dependent on the organizational context. This implies that the same idea can be translated in different ways in different organizations. Further, the theory of situated learning builds on the view that learning is relational, implying that the meaning of ideas is

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negotiated through collective reflection. Huzzard (2004: 352) expresses this by the following:

> "When actors draw on new 'knowledge' they attribute new meaning to it, contextualise it locally and translate it into practice through everyday interaction. New understandings are then generated retrospectively through collective reflection."

Based on the above, and a qualitative interview study in two petroleum companies, we seek to explore the following research questions in this paper:

1. How can different translations of the HSE culture regulation (§15) be described and explained in two petroleum companies?
2. To what extent has the introduction of the HSE culture regulation supported good organizational learning about HSE in the companies?

The analysis is based on institutional theory. Here, one central argument is that the design and structure of organizations are not purely based on rational efficiency considerations, but also on organizations' need for legitimacy (Meyer and Rowan, 1977; Dimaggio and Powell, 1983). Organizations are influenced by socially created and accepted conventions in their surroundings, constituting their institutional environment. Organizational ideas refer to specific forms of conventions or 'recipes' which are considered proper and legitimate ways of organizing an enterprise and which also presumably can improve aspects of its activities, e.g. quality, efficiency, and safety.

In the next section, we will present some examples of how culture has been applied as a basis for changing recipes, followed by an elaboration of institutional theory and translation. The method for the study is explained in Section 3, followed by a presentation of the empirical findings in Section 4. A discussion related to the research questions is given in Section 5, and finally we conclude in Section 6.

2. Cultural recipes and translations

2.1. Culture and improvement

The idea that culture is a key for improvements in organizations has a somewhat long history in the organizational field, and the early and influential books by Peters and Waterman (1982) and Deal and Kennedy (1982) are important starting points. The themes in these books covered cultural characteristics of successful enterprises and how managers could arrange for such characteristics to flourish. Developing 'soft' aspects of organizations were acknowledged as prerequisites for excellence and for creating competitive advantage.

The cultural turn in general organizational theory was eventually also picked up in the safety community, first in investigations after major catastrophes (e.g. Chernobyl, Piper Alpha), and later by safety researchers. Recipes for engineering safety cultures became accepted and legitimate means to improve the safety in organizations. Reason's (1997) well-known 'building blocks' in this respect included a reporting, just, flexible and learning culture, which in concert should result in an organization that was informed about the different factors which influenced the safety state of the system. Another example of a safety cultural recipe was coined by Hudson (2007), who normatively separated different cultural types (pathological, reactive, calculative, proactive and generative cultures), and depicted these types as a cultural ladder up which organizations could 'climb'. A recipe for how this journey could be accomplished was presented, including different 'micro-tools' and a marketing-inspired strategy. Reason's and Hudson's prescriptions on how to work with culture have been applied in a wide range of industries and countries.

Also, regulators in different industries have increasingly included safety culture in their regulatory repertory (Grote and Weichbrodt, 2013), inspired by the interest in the concept by researchers and practitioners. For example, the International Maritime Organization (IMO) made the International Safety Management code statutory in 1998, which requires ship-owners to develop their own safety management systems. IMO's primary goal with the ISM code was to gradually create a new safety culture in the maritime industry after several major catastrophes (Anderson, 2003). Still, it is rare that regulators explicitly require sound cultures, as in the PSAs Framework Regulations (Le Coze and Wiig, 2013). This makes it interesting to study how this abstract idea has manifested itself in different companies. Translation is a key concept that is used in this paper to illustrate this encounter (Røvik, 1998, 2007; Czarniawska and Joerges, 1996).

2.2. Translation in institutional theory

2.2.1. Institutional theory

Institutional theory builds on open systems theory and contingency theory. It focuses on the process whereby behavioral patterns become stable and socially accepted within organizations. Institutions can more formally be defined as "the emergence of orderly, stable, socially integrating patterns out of unstable loosely organized or narrowly technical activities." (Selznick, 1996: 271). The organization's history, the organizational members and adaptations to the surrounding environment constitute important elements in an institutional process (Selznick, 1957).

Some of the research within more recent institutional theory has focused on the diffusion of organizational ideas, for example related to management, strategy or human resource management. This is especially linked to two classical articles by Meyer and Rowan (1977) and Dimaggio and Powell (1983). In both articles, it is argued that organizations are becoming increasingly more alike structurally. This homogenization of organizations is partly driven by a need to be considered *legitimate* enterprises by external actors (customers, competitors, authorities, etc.), expressed by Meyer and Rowan (1977: 345) like this:

> "After all, the building blocks for organizations come to be littered around the societal landscape; it takes only little entrepreneurial energy to assemble them into a structure. And because these building blocks are considered proper, adequate, rational, and necessary, organizations must incorporate them to avoid illegitimacy."

Other researchers have been focusing on what happens to organizational ideas when they cross the borders of organizations, in some respects called the Scandinavian branch of new institutionalism (Røvik, 1998). Czarniawska and Joerges (1996) use the term *translation* as a metaphor for the process that takes place when ideas meet organizations. Based on Latour (1986), they emphasize that ideas are spread by people who can translate objects or artefacts in various ways (Czarniawska and Joerges (1996: 18).

> "Ideas are turned into things, then things into ideas again, transferred from their time and place of origin and materialized again elsewhere."

In our case, we could say that the idea of culture influencing safety is turned into a 'thing' or an object – a regulatory paragraph. This paragraph is then interpreted by the different petroleum companies and materialized in different internal programmes and activities.

2.2.2. The virus metaphor

Røvik (2007) describes two different phases in translatory processes. De-contextualization refers to how practices in one context