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#### Review

## Returning to the roots of culture: A review and re-conceptualisation of safety culture

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#### A R T I C L E I N F O

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#### ABSTRACT

Despite significant research, there is still little agreement over how to define safety culture or of what it is comprised. Due to this lack of agreement, much of the safety culture research has little more than safety management strategies in common. There is, however, a degree of acceptance of the close relationship between safety culture and organisational culture. Organisational culture can be described using traditional views of culture drawn from the anthropology and cultural psychology literature. However, the safety culture literature rarely ventures beyond organisational culture into discussions of these more traditional concepts of culture. There is a need to discuss how these concepts of culture can be applied to safety culture to provide greater understanding of safety culture and additional means by which to approach safety in the workplace. This review explores how three traditional conceptualisations of culture; the normative, anthropological and pragmatist conceptualisation of safety culture which can be used to provide greater depth and practical applicability of safety culture, by increasing our understanding of the interactions between cultural and contextual variables in a given workplace and the effect they have on safety.

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#### 1. Introduction

'Safety culture' is a term with many different definitions in the academic and professional literature (see reviews by Choudhry et al. (2007) and Guldenmund (2000)). The phrase 'safety culture'

was first used by the International Nuclear Safety Advisory Group (INSAG) in a report following the 1986 disaster at the Chernobyl Nuclear Power Plant. Amongst other causal factors, it was reported that a lack of safety culture, both within the Chernobyl plant and at a national level, contributed to the incident (INSAG-1, 1986, as updated in INSAG-7, International Nuclear Safety Advisory Group, 1992). This report subsequently sparked significant academic interest in this new concept. Five years following the disaster IN-SAG gave the following definition of safety culture:



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"Safety Culture is that assembly of characteristics and attitudes in organisations and individuals which establishes that, as an overriding priority, nuclear plant safety issues receive the attention warranted by their significance." (p. 1; INSAG-4, 1991)

Safety culture research has been conducted by individuals originating from a number of different disciplines (social and organisational psychology, business and management, etc.), leading to differences in the way safety culture is conceptualised. A number of authors have noted that despite much research in the field there is a lack of widely-accepted definitions of safety culture (Guldenmund, 2000; Hopkins, 2006). Guldenmund (2000) highlighted that, this had led many researchers to re-define safety culture in relation to their specific area of interest. Due in part to the number of different definitions of safety culture, and to the nature of the specific problem under investigation, research in this field has focussed on a varving number of factors and influences, such as organisational management systems, policies and procedures, job design, work pressures, training, employee involvement in decision making and perceptions and attitudes regarding the work environment (Arboleda et al., 2003; Choudhry et al., 2007; Cox and Cheyne, 2000; Grote, 2008; Havold, 2010; O'Toole, 2002; Parker et al., 2006).

The lack of agreement regarding the nature and content of safety culture presents a barrier to the continued advancement of the field beyond being simply a loose collection of organisational safety research. Whilst the nature of safety, and the specific associated risks and hazards, may differ between organisational settings, there are a number of key factors common to most organisational settings. By definition safety is "the condition of being protected from or unlikely to cause danger, risk, or injury" (Oxford Dictionaries, 2010). Thus, safety can be understood as a state of being in which individuals are protected from the likelihood of harm. In the context of organisational safety culture, however, it is necessary to identify a manner in which to objectively describe safety. For the purpose of this paper safety is viewed as the combination of those behaviours which either increase or decrease the risk of harm, with safe denoting protected from harm, and unsafe at high risk of harm. The behaviours which may increase or decrease the risk of harm may include the development and implementation of safe technologies, the implementation of safetyrelated policies and procedures, the extent to which workers correctly utilise technology and adhere to policies and procedures, and finally, behaviours conducted by workers which fall outside of these parameters but have an impact on the risk of harm (for example, the safe or unsafe use of a ladder by a worker employed by an organisation without a policy covering the use of ladders). Further, this harm could be physical or psychological in nature.

The exact nature of safe and unsafe behaviours may differ between organisations and industries, and the targeted level of an organisation (e.g. management, supervisors or workers), thereby permitting different focuses between researchers. However, it is questionable whether culture and, therefore, safety culture, is so differentiated. Distinct from the broader field of safety science, is the specific use of the word 'culture' in safety culture, thus the exploration of the meaning of culture may provide a framework for the further development of safety culture. Despite the lack of consensus in definitions and models of safety culture, there is some agreement that a strong safety culture is an organisational culture that places a high priority on safety-related beliefs, values and attitudes (Cooper, 2000; Guldenmund, 2000; Short et al., 2007). Whilst the literature often presents safety culture as a specific issue, it can be argued that it is a result of the overarching organisational culture, and is perhaps better viewed as a sub-component or effect of organisational culture, and not a culture in itself (Antonsen, 2009; Choudhry et al., 2007; Guldenmund, 2000; Haukelid, 2008; Hopkins, 2006). Due to the close relationship between these concepts, organisational culture would appear to provide a useful avenue to explore the meaning of culture in safety culture.

#### 2. Organisational culture and safety culture

Organisational culture has received significant attention in the literature and many definitions have been presented. According to Fisher and Alford (2000), there are over 164 definitions of organisational culture. Despite a broad variety of definitions, Gulden-(2000) identified seven commonly referenced mund characteristics of organisational culture: (1) it is an abstraction rather than a 'concrete phenomenon' and is, therefore, difficult to define and operationalise; (2) it is relatively stable over time; (3) it is multi-dimensional; (4) it is shared by groups of people; (5) it may contain several aspects which co-exist within an organisation (e.g. a 'service climate' or a safety culture); (6) it leads to overt practices; and that (7) it serves a functional purpose, as seen in the common saying that culture is "the way we do things around here".

One of the more commonly referenced definitions of organisational culture found in the literature is, "shared values and beliefs that interact with a company's people, organizational structures and control systems to produce behavioural norms" (Uttal, 1983). Another common definition of organisation culture seen in the literature is provided by Schein (1990). Rather than directly define organisational culture, Schein argued that any group with a significant shared history may have developed a culture and as such, organisational culture is simply the culture held by members of a given organisation. This culture was defined as:

"(a) a pattern of basic assumptions, (b) invented, discovered, or developed by a given group, (c) as it learns to cope with its problems of external adaptation and internal integration, (d) that has worked well enough to be considered valid and, therefore (e) is to be taught to new members as the (f) correct way to perceive, think, and feel in relation to those problems" (p. 111, Schein, 1990).

If organisational culture is merely the culture held by members of an organisation, then given the relationship between organisational and safety culture, it can be seen that safety culture also has theoretical ties to more traditional concepts of culture. It is, therefore, somewhat peculiar that the safety culture literature rarely ventures beyond brief discussions of the organisational culture literature in establishing its own parameters and theoretical basis. Whilst these concepts can be gleaned from the literature surrounding organisational culture there is a risk inherent to this approach. Due to difficulties in conveying culture to the business world, a number of organisational culture authors have attempted to translate culture into concepts more easily understood in this arena (Fisher and Alford, 2000). Whilst it is important to present organisational and safety culture in a manner which will be accepted by the business community, thereby increasing its application, it is important to ensure the highest fidelity of these translations to the original concepts. By basing safety culture purely upon translated concepts of culture gleaned from the organisational culture literature, there is an increased risk of cumulative error, which may lead to a loss of original content from the culture literature. Thus, in order to explore the meaning of culture in safety culture, it is beneficial to briefly return to some of the traditional definitions and conceptualisations of culture, found in the anthropological and cultural psychology literature, in order to adequately translate these concepts to the safety setting.

#### 3. Applying traditional conceptions of culture to safety culture

According to Tharp (2007), efforts to define culture have invariably led to exasperation, and many definitions have arisen. Download English Version:

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