Implicit Safety Culture assessment
– a mental chronometry approach

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Abstract

The present paper deals with the relationship between implicit safety-critical attitudes and safety culture. In this study explicit and implicit safety-critical attitudes of 376 participants working in different industries (e.g. chemical industry, automotive, timber and metal industry) were measured. The Implicit Association Test (IAT) – a method based on mental chronometry – was applied to assess implicit safety-critical attitudes. Questionnaires were used to measure explicit safety attitudes and various indicators of safety culture. The results of this study show that explicit and implicit safety-critical attitudes represent different aspects of an organisational safety culture. Moreover, recommendations for future research in the field of safety culture assessment are made.

Introduction

Researchers have attempted to understand the meaning of *safety culture* and its outstanding role for high-hazard industries. Though, the term *safety culture* is lacking a clear definition (Cox & Flin, 1998) most of the attempted definitions indicate that a safety culture reflects the attitudes, beliefs and assumptions that individuals share on hazards and risks (Cox & Cox, 1991; INSAG, 1991). Moreover, many researchers claim that attitudes are the most comprehensive and useful indicators of a safety culture (Williamson et al., 1997). However, the absence of a clear definition of safety culture makes determining attitudinal variables more difficult. Attitudes relevant to safety range from *individual responsibility*, *job satisfaction*, to *risk awareness* (Dedobbeleer & Beland, 1991). Apart from the demanding task of analysing relevant contents of safety-critical attitudes, another important but also neglected area of research is evident – the cognitive mode of attitudes.

The objective of this paper is twofold. First of all, it provides theoretical considerations necessary for an implicit social cognition framework on a safety culture concept. Second, the paper presents methodological arguments showing the incremental value of implicit attitude measures within safety culture assessments.