



Another look at safety climate and safety behavior: Deepening the cognitive and social mediator mechanisms

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ABSTRACT

In this study, safety climate literature and the theory of planned behavior were combined to explore the cognitive and social mechanisms that mediate the relationship between organizational safety climate and compliance and proactive safety behaviors. The sample consisted of 356 workers from a transportation organization. Using a multiple mediation design, the results revealed that proactive and compliance safety behaviors are explained by different patterns of combinations of individual and situational factors related to safety. On the one hand, the relationship between organizational safety climate and proactive safety behaviors was mediated by coworkers' descriptive norms and attitudes toward safety. On the other hand, supervisors' injunctive safety norms and perceived behavioral control were the mediator variables between organizational safety climate and compliance safety behaviors. Theoretical and practical implications of the findings are discussed.

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A safe and healthy working environment is an essential element of work life quality. The Commission communication "Improving quality and productivity at work: Community strategy 2007–2012 on health and safety at work" (Commission of the European Communities, 2007) outlines options for further action to make workplaces across Europe safer and healthier. Although there has been a reduction in the number of people who have been killed, injured or made ill by accidents at work in the last few years, the occupational safety and health situation in the EU remains rather bleak. Every three and a half minutes somebody in the EU dies from work-related causes; every year more than 142 million people in the EU die from occupational diseases, 8900 from work-related accidents; and, in the EU, up to a third of these fatalities can be attributed to hazardous substances at work (European Agency for Safety and Health at Work). Preventive interventions require the identification of factors that contribute to promoting healthy and safe behaviors.

The research fields of applied social psychology and organizational behavior have shown a strong interest in the behavioral aspects of safety, and safety climate has become an important cornerstone of contemporary thought about health and safety

management. During the past few decades, several researchers have attempted to determine the effects of safety climate on employees' occupational safety behaviors and work injuries across a range of industrial settings (e.g., Huang et al., 2006; Neal and Griffin, 2006; Siu et al., 2003; Varonen and Mattila, 2000). Some studies have found a direct relationship between safety climate and safety behavior (e.g., Cooper and Phillips, 2004; Glendon and Litherland, 2000), while other studies have suggested that there is no direct link between safety climate and actual safety behavior, reporting that this relationship is mediated by other variables (e.g., Barling et al., 2002; Zohar and Luria, 2005). The *psychosocial model of work-related accidents* (Meliá, 1998) shows how safety climate influences workers' safety behavior through supervisors' and coworkers' safety responses. This model presents employees' safety behavior as the result of a chain of social influence processes. In this model, safety climate refers to the safety response of the company, and it has a direct causal effect on supervisors' safety response; the supervisors' safety response has a causal effect on coworkers' safety response; and the coworkers' safety response, together with the supervisors' safety response and the safety climate, shows a causal effect on employees' safety behaviors, which, in turn, affect work accidents. However, this empirical-behavioral model does not explicitly identify and measure the socio-cognitive factors underlying the mediating role of supervisors and coworkers in safety behavior. Specifically, this model does not differentiate between descriptive and injunctive safety norms, and it does not include attitudes toward safety and perceived behavioral control.

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