The role of organizational trust in safety climate's influence on organizational outcomes

Lisa M. Kath [a], Vicki J. Magley [b], Matthew Marmet [b],*

[a] Department of Psychology, San Diego State University, 5500 Campanile Dr., MC-4611, San Diego, CA 92182-4611, USA
[b] Department of Psychology, University of Connecticut, 406 Babbidge Rd., Unit 1020, Storrs, CT 06269-1020, USA

ARTICLE INFO

ABSTRACT

Based on elements of social exchange theory and other conceptualizations of trust, a model was developed situating organizational trust as a central component to the relationship that safety climate has with organizational outcomes. Specifically, the model specified that two facets of safety climate – upward safety communication and management attitudes toward safety – would be positively related to organizational trust. Increased levels of trust would then predict increased motivation to engage in safe job-related behaviors, increased job satisfaction, and decreased turnover intentions. Another hypothesis investigated whether job safety relevance would moderate the relationship between safety climate and trust. Online survey research was conducted with 599 employees from 97 workgroups across a New England grocery store chain. Hierarchical linear modeling indicated support for trust mediating the relationship between safety climate and organizational outcomes; further, the relationship between safety climate and trust was stronger within workgroups where safety was more relevant.

© 2009 Elsevier Ltd. All rights reserved.

1. Introduction

Without trust, relationships would not be able to survive (Diffie-Couch, 1984). Defined as positive expectations individuals have about the intent and behaviors of multiple organizational members based on organizational roles, relationships, experiences, and interdependencies (Mayer et al., 1995; Shockley-Zalabak et al., 2000), organizational trust has been shown to be associated with desired organizational outcomes such as increased job satisfaction, productivity and organizational commitment, as well as decreased absenteeism and turnover (Driscoll, 1978; Hopkins and Weathington, 2006; Perry and Mankin, 2007). Two recent reviews call attention to the importance of organizational trust. The first meta-analytic review considers the relationship that organizational trust has with other organizational constructs, such as risk taking and citizenship behaviors (Colquitt et al., 2007), whereas the second provides an overview of developments in the organizational trust literature (Schoorman et al., 2007).

The main goal of this work is to build a model based on past empirical research that exemplifies the central role that organizational trust plays in the relationship between safety climate and job/organizational outcomes. Previous studies have found that aspects of safety climate, such as management attitudes and communication, have an effect on organizational safety-related behaviors. Specifically, Zohar (2002) found that modifying supervisory safety behaviors led to better subunit safety records. By implementing an intervention designed to alter supervisory monitoring and rewarding of subordinate safety performance, he was able to increase ear plug use and decrease minor injury rate (Zohar, 2002). After a five-month follow-up, these findings had remained quite stable. Also, a meta-analysis by Clarke (2006) showed that high levels of safety climate led to increased safety participation and compliance. However, other researchers (Michael et al., 2006) argue that these aspects of safety are not sufficient in explaining organizational outcomes, and call for further research to find mediators or moderators to better explain this relationship. With this in mind, the present study examines the role of organizational trust in clarifying the link between safety climate and job/organizational outcomes. Additionally, because safety is more salient within certain job types (Cooper and Phillips, 2004; Wu et al., 2007), job safety relevance will be examined as a possible moderator of the impact that safety climate has on trust.

Our conceptual model is presented in Fig. 1. In elucidating this model, we begin by briefly reviewing the direct link between safety climate and organizational outcomes. We then argue for the inclusion of organizational trust as a key mediator of these relationships, based on similarities between aspects of safety climate and organi-

* Corresponding author. Tel.: +1 315 868 4117; fax: +1 860 486 2760.
E-mail addresses: lkath@sciences.sdsu.edu (L.M. Kath), vicki.magley@uconn.edu (V.J. Magley), matthew.marmet@uconn.edu (M. Marmet).
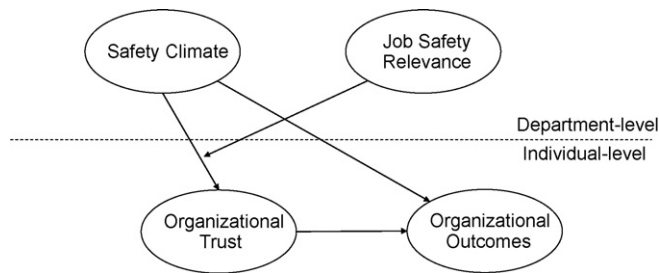
Fig. 1. Multilevel conceptual model with organizational trust mediating the relationship between safety climate and organizational outcomes and with job safety relevance moderating the effect of climate on trust.

zational trust the known impact that trust has on job/organizational outcomes. We conclude by considering the influence of job safety relevance in the nature of the mediated relationship.

1.1. Safety climate and job/organizational outcomes

The term "safety climate" was coined by Zohar in 1980. Although there is some debate in the literature as to whether safety climate is one single construct or can be broken into facets, the construct commonly refers to shared perceptions of the organization's practices and policies pertaining to safety. In a meta-analysis of 32 empirical studies of the correlates of safety climate, Clarke (2006) listed the numerous measurement instruments currently available to assess safety climate. Some facets that have been proposed – and that we focus on within the present research – include management attitudes toward safety (Zohar, 1980) and upward safety communication (Hofmann and Morgeson, 1999). Management attitudes toward safety include employees' perception that their supervisors view safety as important; upward safety communication refers to the comfort that subordinates feel in bringing safety-related information to their supervisors. Because safety climate has been conceptualized as *shared* perceptions, it naturally indicates a need to be aggregated to a grouplevel. Hence, in the present research, we operationalize safety climate as a group-level construct, as has been strongly advocated (cf., Hofmann and Stetzer, 1996; Zohar, 2000; Zohar and Luria, 2005).

Although safety climate has been linked to numerous organizational outcomes, by far the most prevalent association examined is with injuries, where safer climates are expected to be associated with fewer injuries. Despite the frequency of examination, there is not a clear answer to whether the relationship exists. For example, Clarke's (2006) meta-analysis found a non-significant relationship when considering 28 studies. In a longitudinal study, Neal and Griffin (2006) found this relationship to be more complicated. Group-level safety climate predicted subsequent individual-level safety motivation, which then predicted subsequent individual-level safety behaviors. When aggregated to the grouplevel, safety behaviors predicted subsequent group injuries. Due to constraints resulting from our use of archival data, we do not have safety behaviors in our model, but we largely replicate tests of their model with the following hypotheses:

Hypothesis 1. Group safety climate will be positively associated with individual-level safety motivation.

Because our analytic strategy does not allow for testing relationships between individual-level predictors and group-level outcomes, we aggregated safety motivation to the group level to test the relationship between safety motivation and group-level injuries:

Hypothesis 2. When aggregated, group-level safety motivation will be negatively associated with group-level injuries.

Considerably less frequent in the workplace safety literature is the consideration that safety climate might affect other non-safety, job/organizational outcomes. The first empirical study, to our knowledge, to articulate and find a direct relationship between safety climate and job satisfaction was conducted by Morrow and Crum (1998). Based on the Theory of Work Adjustment (Dawis and Lofquist, 1984), they predicted that safety, as an important environmental need, would affect workers' perception that their working conditions were favorable, resulting in enhanced organizational attitudes, such as job satisfaction. Additionally, in their cross-sectional study, they found that safety climate was positively related to intentions to remain within the organization. In a similar study, Michael et al. (2005) found safety climate to be a predictor of job satisfaction and withdrawal behaviors. In line with these studies, we hypothesized:

Hypothesis 3. Group safety climate will be positively associated with individual-level job satisfaction.

Hypothesis 4. Group safety climate will be negatively associated with individual-level turnover intentions.

1.2. Organizational trust as a mediator of the safety climate–outcomes relationships

As mentioned above, we argue that organizational trust is a key mediator of the safety climate–outcomes relationships, based on similarities between aspects of safety climate and organizational trust as well as the known effects of trust on organizational outcomes. In this section, we first create these theoretical links between safety climate and organizational trust by separating the two facets of safety climate that we studied and by carefully explicating the process by which these facets of safety climate can help establish or maintain organizational trust. After that, we explain how organizational trust can lead to our focal organizational outcomes.

1.2.1. Safety climate leading to organizational trust

Organizational factors such as open communication, increased decision authority, information sharing, and the sharing of feelings/perceptions are responsible for engendering trust (Mishra and Morrissey, 1990). For example, Whitener et al. (1998) theorize that managers who are accurate in their communication, provide adequate explanations, and keep the lines of communication open encourage trust among their employees. Further, Shockley-Zalabak et al. (2000) found that accuracy of information, explanations for decisions, and openness are three aspects of communication that are positively related to trust. Similarly, Firth-Cozens (2004) found that open communication predicts increased levels of trust, and Diffie-Couch (1984) equates comfortable communication with a trusting environment.

These open lines of communication can also be viewed as social exchanges. Social exchange theory (Blau, 1964) states that trust can be generated in two ways: through the regular reciprocation of benefits received and/or through the gradual expansion of social exchanges over time. Blau indicated that as more of these exchanges take place, the higher the levels of trust become. For example, Whitener et al. (1998) portrayed a scenario in which two managers were working with a subordinate who telecommutes. The manager who forms a strong social bond with his or her employee by partaking in frequent social exchanges and expanding the breadth of these exchanges over time should develop a higher level of trust in his or her employee than the manager who fails to do so.

Despite the mounting evidence generally linking positive communication with organizational trust, Gilbert and Tang (1998) called for greater specificity in the nature of these communication