Psychological safety: A systematic review of the literature

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ABSTRACT

Since the concept of psychological safety was introduced, empirical research on its antecedents, outcomes, and moderators at different levels of analysis has proliferated. Given a burgeoning body of empirical evidence, a systematic review of the psychological safety literature is warranted. As well as reviewing empirical work on psychological safety, the present article highlights gaps in the literature and provides direction for future work. In doing so, it highlights the need to advance our understanding of psychological safety through the integration of key theoretical perspectives to explain how psychological safety develops and influences work outcomes at different levels of analysis. Suggestions for future empirical research to advance our understanding of psychological safety are also provided.

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1. Introduction

In the contemporary business world, organizations are increasingly requiring their employees to contribute to the continuous improvement of organizational processes and practices through behaviors that enable learning to occur (e.g., voicing new ideas, collaborating with other members of the organization, and experimenting with new ways of doing things; Edmondson, 1999; Nembhard & Edmondson, 2011). While such activities may potentially benefit the organization, they carry certain risks for the individual. For example, the voicing of new ideas might challenge the established way of doing things and go against the vested interests of other members of the organization (Detert & Burris, 2007; Edmondson, Bohmer, & Pisano, 2001). In addition, experimentation with new approaches in the workplace might ultimately be unsuccessful, viewed as a failure, and lead the individuals involved to be seen in a negative light (Van Dyne & LePine, 1998). As a result, there is growing evidence to indicate that such risks may lead employees not to contribute to learning processes, and thereby inhibit both individual and organizational learning (Detert & Burris, 2007). The provision of a psychologically safe work environment (i.e., one in which employees feel safe to voice ideas, willingly seek feedback, provide honest feedback, collaborate, take risks and experiment, is one way to overcome such threats to individual and organizational learning; Edmondson, 1999). For example, in recent longitudinal work by Google's People Analytics Unit, psychological safety was identified as the number one characteristic of successful high-performing teams (Bergmann & Schaeppi, 2016). Psychologically safety is especially important in work environments where employee and customer safety are paramount, such as the healthcare or aviation industries, as it has been shown to be critical in reducing employee errors and enhancing safety (Leroy et al., 2012; Nembhard & Edmondson, 2011), and been shown to increase team and individual learning across multiple organizations (e.g., Liu, Hu, Li, Wang, & Lin, 2014; Ortega, Sanchez-Manzanares, Gil, & Rico, 2010). Given the importance of psychologically-safe work environments to organizations, their employees and their customers, the present article reviews prior scholarship on psychological safety.

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Although several definitions of psychological safety have been proposed, the majority of studies have followed Edmondson (1999) by defining it as a shared belief amongst individuals as to whether it is safe to engage in interpersonal risk-taking in the workplace (Edmondson, Dillon, & Roloff, 2007; Edmondson & Lei, 2014). In a psychologically safe work environment, employees feel that their colleagues will not reject people for being themselves or saying what they think, respect each other's competence, are interested in each other as people, have positive intentions to one another, are able engage in constructive conflict or confrontation, and feel that it is safe to experiment and take risks (Edmondson, 1999). Behaviorally, psychological safety leads employees to engage in open communication, voice their concerns, and seek greater feedback; all of which are interpersonally risky behaviors (Pearsall & Ellis, 2011). This, in turn, has been found to influence a range of workplace outcomes (e.g., learning and performance) at different levels of analysis (Edmondson & Lei, 2014). Although psychological safety shares some overlap with trust, psychological safety is conceptually different as it focuses on how group members perceive a group norm, whilst trust focuses on how one person views another.

Since Kahn's (1990) and Edmondson's (1999) initial work on psychological safety at the individual and team levels of analysis, empirical research on its antecedents, outcomes, and moderators has proliferated (Baer & Frese, 2003; Kark & Carmeli, 2009). By the end of 2015 there were >83 published articles on psychological safety (78 of which are empirical), including a meta-analysis of the relationships among psychological safety and team performance/learning (Sanner & Bunderson, 2013), a meta-analysis of the antecedents and outcomes of psychological safety (Frazier, Fainshmidt, Klinger, Pezeshkan, & Vracheva, 2016), and a limited review of prior work (Edmondson & Lei, 2014). Although the meta-analyses provide us with some knowledge of the antecedents, outcomes, and boundary conditions of the relationship between psychological safety and its antecedents/outcomes, and the prior review provides insight into extant scholarship on psychological safety, the present article builds on this previous work to make a significant contribution in a number of ways.

First, by examining a larger number of published articles (83 studies compared to 25 studies for the Sanner and Bunderson meta-analysis, 78 for the Frazier et al. meta-analysis,[1] and fewer than 30 studies for Edmondson and Lei's [2014] review), we undertake a far more systematic review of prior work, delivering a thorough analysis of the state of the literature. As well as examining prior research on all the antecedents and outcomes of psychological safety, many of which were not the focus of prior empirical work, we offer a greater theoretical analysis of the past literature than both the Frazier et al. and Sanner and Bunderson meta-analyses. In addition, we examine the moderators of relations among psychological safety and its outcomes, and work in which psychological safety is treated as a moderator. This allows us to better elucidate the complex nomological network in which psychological safety is embedded. Although Edmondson and Lei's (2014) review looked at the antecedents and outcomes of psychological safety, their work did not cover more recent articles that have made substantive theoretical and empirical advancements (e.g. Gu et al., 2013; Halbesleben & Rathert, 2008; Liu et al., 2014; Post, 2012; Roussin & Webber, 2012; Roussin, MacLean, Rudolph, 2016; Singh, Winkel, & Selvarajan, 2013), including recent work that has begun to look at the negative aspects of psychological safety (Pearsall & Ellis, 2011). Edmondson and Lei (2014), like Frazier et al. (2016), also did little to highlight the theoretical perspectives that have been adopted by researchers to explain how psychological safety develops and influences work outcomes.

We make a second important contribution by highlighting opportunities for theoretical advancement of the field through the integration of different theoretical perspectives to explain the relationship between psychological safety and its antecedents/outcomes. Currently, theoretical perspectives such as social learning, social exchange and social identity theories have predominantly been used by researchers to explain the processes by which psychological safety develops and influences outcomes. Our review calls upon researchers to utilize alternate theories such as the Conservation of Resources Theory (Hobfoll, 1989) to explain how the psychological safety engendered through access to resources in the work environment motivates employees to invest their resources at work to help others, and stimulate learning, growth and development. In addition, we highlight how the incorporation of person-situation theoretical perspectives such as Trait Activation Theory (Tett & Guterman, 2000) might help to explain how the psychological safety climate strengthens the behavioral manifestation of certain personality traits.

Finally, we also provide advice for advancing empirical research. In addition to providing recommendations concerning the measurement of psychological safety, we also call on researchers to: (1) adopt alternative methodologies to study psychological safety, (2) conduct additional research to investigate the influence of culture on the development and deployment of psychological safety, (3) investigate the potential negative effects of psychological safety and (4) conduct more multi- and cross-level work to understand the relative influence of individual-, team-, and organizational-level antecedents on psychological safety.

As well as advancing theoretical and empirical knowledge of psychological safety, our review of the literature has important practical implications for organizations. Understanding the benefits that psychological safety brings to organizations, the situations in which psychological safety is most influential, and the factors that may lead to psychological safety development, will assist leaders in designing work environments that maximize beneficial outcomes for their organizations. Psychological safety is becoming increasingly important to organizational success in today's business environment, given the requirements for employees to share information and exchange ideas with other team and organizational members in the attainment of shared goals (Edmondson & Lei, 2014). A growing proportion of work in organizations is highly specialized and complex in nature, and therefore requires greater collaboration among individuals than in the past. In the following sections we set out how we conducted our literature search before reviewing how psychological safety has been defined and measured, and examining its antecedents and outcomes.

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[1] We did not include unpublished work in the meta-analysis in calculating these figures. Neither did we include empirical studies that adopted the participative safety dimension from West's (1990) team climate scale (6 studies), nor empirical studies which did not measure psychological safety, but similar concepts such as social support and trust which overlap with psychological safety. Although Edmondson and Lei's (2014) did not report the number of studies in their review, we calculated this figure by examining the content of articles included in the review.