The effects of organizational trust and empowering leadership on group conflict: psychological safety as a mediator

Baek-Kyoo (Brian) Joo
Department of Management and Marketing,
Slippery Rock University of Pennsylvania, Slippery Rock, Pennsylvania, USA

So Kyum Yoon
Department of Education, Korea University, Seoul, Republic of Korea, and

Diane Galbraith
Department of Management and Marketing,
Slippery Rock University of Pennsylvania, Slippery Rock, Pennsylvania, USA

Abstract

Purpose – In a knowledge-based economy, employees' perception of psychological safety in their wok unit is critical for group conflict. The purpose of this study is to investigate the mediating role of psychological safety between the predictors (i.e. organizational trust and empowering leadership) and the outcome variable, group conflict.

Design/methodology/approach – Data was drawn from 633 employees from a global automobile company headquartered in South Korea. Construct validity of the measurement model was examined using a confirmatory factor analysis. The hypothesized model was tested by a structural equation modeling and the bootstrap analysis.

Findings – Organizational trust and empowering leadership accounted for 68% of the variance in employees' psychological safety. The three antecedents (i.e. organizational trust, empowering leadership and psychological safety) explained 20% of the variance in group conflicts. Psychological safety significantly and fully mediated the relationship between organizational trust and group conflict and the relationship between empowering leadership and group conflict.

Practical implications – Human resources and organization development professionals can help employees feel more psychologically safe in an organization by developing empowering leaders and making more trustworthy organizational culture. When employees perceive a high level of psychological safety, they are likely to feel less conflict in their team.

Originality/value – This study examined the antecedents and consequences of psychological safety of knowledge workers in a non-Western cultural context. Psychological safety played a pivotal role as a mediator. To the best of the authors' knowledge, this is the first study that empirically found the direct link between organizational trust and psychological safety and the relationship between empowerment leadership and psychological safety.

Keywords Psychological safety, Organizational trust, Empowering leadership, Group conflict, South Korea

Paper type Research paper

Introduction

As organizations today is characterized as volatility, uncertainty, complexity and ambiguity, it is one of the most important leadership responsibilities to make its culture safe for open communication about challenges, concerns, and opportunities. Psychological safety exists when employees feel they can speak up, suggest ideas and ask questions in their workplace (Edmondson, 2019). Psychological safety is essential to unleashing talent and creating value, especially when companies rely on knowledge and collaboration for innovation and growth. Despite an increasing attention on psychological safety as a critical source of value creation in organizations in this complex and disruptive business environment, there is a dearth of study that has empirically examined the antecedents of psychological safety (Edmondson & Lei, 2014). Although most psychological safety research has focused on its effects on outcomes such as employees' behaviors and attitudes, there is a dearth of empirical study on the antecedents of psychological safety.

In their meta-analytic study of psychological safety, Frazier, Fainshmidt, Klinger, Pezeshkan, and Vracheva (2017) concluded that there are several factors that can facilitate the emergence of psychological safety with some contextual factors (e.g. work design and leadership) than personal factors (e.g. personality). In this vein, we examined two predictors of psychological safety: organizational trust and empowering leadership. The organizational culture of trust will make employees feel comfortable and psychologically safe. Psychological safety has become a vital leadership responsibility because it can make or break an employee's ability to contribute, to grow and learn and to collaborate (Edmondson, 2019). In this knowledge economy, leaders must help motivate people to do their best work by inspiring them, coaching them, providing feedback and effectively rewarding them. Although culture of trust in organization and supportive leadership are critical for psychological safety, researchers have not shed enough light on their relationships. In addition, the direct relationship between psychological safety and group conflict needs to be examined. When teams have high levels of psychological safety climate, teammates will have less conflicts in teams, producing more teammates' ideas, opinions and viewpoints. Filling this research gaps, we investigated the role of psychological safety focusing on a culture of trust, supportive leadership and group conflict.

The purpose of this study is to investigate the relationships among organizational trust, empowering leadership, psychological safety and group conflict, using data drawn from 633 employees from a company in an auto industry headquartered in South Korea. More specific, we examined the mediating role of psychological safety between two antecedents (i.e. organizational trust and empowering leadership) and an outcome variable (i.e. group conflict). This research will contribute to the body of knowledge of group conflict and organizational culture as well as psychological safety research. One of the potential contributions lies in that we examined the contextual predictors of psychological safety, integrating leadership, organizational culture and conflict management research. Another contribution lies in that this study examined psychological safety of knowledge workers in a non-Western cultural context.

Literature review and hypotheses

Psychological safety

Psychological safety is defined as "people's perceptions of the consequences of taking interpersonal risks in a particular context such as a workplace" (Edmondson, 1999, p. 353). Psychological safety can also be described as a feeling that employees can show themselves

without fear of negative consequences to status, self-image or career (Kahn, 1990). According to Edmondson (2019), in her seminal study, psychological safety is consistently known to promote employee voice behavior (Detert & Burris, 2007; Edmondson, 2003; Liu, Liao, & Wei, 2015), learning behaviors such as information-sharing, feedback-seeking, experimenting, asking help and mistakes-reporting (Edmondson, 1999), employee engagement (May, Gilson, & Harter, 2004) and greater creativity and innovation (Agarwal & Farndale, 2017; Gong, Cheung, & Wang, 2012; Kark & Carmeli, 2009). Distinguishing voice and silence as two constructs with different antecedents and outcomes, Sherf, Parke, and Isaakyan (2021) reported that psychological safety is more strongly related to silence than voice. In addition, silence positively associated with burnout significantly more strongly than voice negatively associated with burnout.

Psychological safety is a group phenomenon depending on different teams within the same organization (Edmondson, 1999). Edmondson and Mogelof (2005) proposed the potential effects of organizational culture, team leader behavior, team member interactions and individual differences in personality on psychological safety. Variations in managers' behaviors and messages can result in different outcomes and associated risks. Huang, Chu, and Jiang (2008), in their study of 60 teams in Taiwan, found that team learning and performance is improved when psychological safety exists. More recent, Gerpott, Lehmann-Willenbrock, Wenzel, and Voelpel (2021) found employees' perceptions of psychological safety as a buffer, such that the negative relationship between perceived age diversity and learning outcomes only existed for trainees with low levels of psychological safety. Based on the video-taped observations of board meetings and semi-structured interviews with meeting participants, Veltrop, Bezemer, Nicholson, and Pugliese (2021) reported the importance of psychological safety as a key mechanism explaining why participative board chairs tend to be effective in dealing with board–CEO cognitive conflict.

Organizational trust

Organizational trust is defined as "positive expectations individuals have about the intent and behaviors of multiple organizational members based on organizational roles, relationships, experiences, and interdependencies" (Shockley-Zalabak, Ellis, & Winograd, 2000, p. 35). Organizational trust is a global evaluation of an organization's trustworthiness (Gambetta,1988) and a perceived confidence and support in an employer (Gilbert & Tang, 1998). There are two levels of research on trust: macro and micro level (Schoorman, Mayer, & Davis, 2007). Most measures for trust on a micro level have to do with the trustworthiness belief focusing on integrity and benevolence; however, we will focus on a macro level: an overall organizational climate of internal trust, using a measure by Huff and Kelly (2003).

Recently, Gustafsson, Gillespie, Searle, Hope Hailey, and Dietz (2021) found that employees' perception of the established foundations of trust in the organization is critical to the preservation of trust practices (i.e. cognitive bridging, emotional embodying and inclusive enacting). As Verburg *et al.* (2018) reported in their study of Singaporean employees, the relationship between control and employee organizational trust is likely to be potent in the high power–distance context in Korean culture.

Organizational trust and psychological safety. According to social exchange theory, employees tend to reciprocate the treatment they receive from the organization in a manner they perceive to be fair (Blau, 1964). Ugwu, Onyishi, and Rodriguez-Sanchez (2014) reported that researchers have investigated the relationship between organizational trust and several positive work outcomes, such as job satisfaction (Lee and Teo, 2005), citizenship behavior (Lester and Brower, 2003), proactive behavior (Parker, Williams, & Turner,, 2006), team

processes (Jones and George, 1998) and performance (Dirks, 2000). Trust is also associated with profits, innovation, organizational survival and a variety of crucial worker perceptions and behaviors (Shockley-Zalabak, Ellis, & Cesaria, 1999). Despite the potential link between organizational trust and psychological safety, no empirical study was found to date. When there is a climate of trustworthiness in organization, employees will feel psychologically safe in the organization:

H1. Employee's perception of organizational trust will be positively related to psychological safety.

Empowering leadership
Empowering leadership is defined as the leader's ability to create perceptions of psychological empowerment in others, whereby employees believe that they have some control over their work (Maynard, Gilson, & Mathieu, 2012). The four behavioral dimensions of empowering leaders include:

(1) emphasizing the significance of work;

(2) providing participation in decision-making;

(3) conveying confidence that performance will be excellent; and

(4) removing any bureaucratic constraints (Ahearne, Mathieu, & Rapp, 2005).

When employees feel empowered, they are more likely to be more engaged, productive, with higher healthy climates and job satisfaction less likely to leave the organization (Sreenivas, 2014). Empowering leaders positively affect knowledge sharing and team efficacy (Srivastava, Bartol, & Locke,, 2006), teamwork behavior (Chen, Sharma, Edinger, Shapiro, & Farh, 2011), psychological empowerment (Chen *et al.*, 2011; Zhang & Bartol, 2010) and creativity (Zhang and Bartol, 2010). van Knippenberg, Giessner, Sleebos, and van Ginkel (2021) also identified the determinants of team empowering leadership in terms of motivated information processing both by identifying leader trust in team as predictor of empowering leadership and by pointing to leader need for closure as a moderator of the relationship of trust in team with empowering leadership.

Empowering leadership and psychological safety. In their meta-analytic study of psychological safety, Frazier *et al.* (2017) reported a positive correlation between leadership and psychological safety. Thus, the direct leader can play a crucial role in shaping the work context and fostering psychological safety. Within the category of positive and supportive leader relations, they examined inclusive leadership and transformational leadership that have been theoretically linked to psychological safety. Kim (2021) found the mediating effect of psychological safety on the relationship between paradoxical leadership (i.e. maintaining both distance and closeness, treating subordinates uniformly while allowing individualization and maintaining decision control while allowing autonomy) and proactive work behavior. The results indicate that paradoxical leadership positively influence psychological safety. To date, however, there was not empirical study examined the direct relationship between empowering leadership and psychological safety.

When employees feel more empowered through empowering leaders, they will be more likely to increase the level of psychological safety, which will lead to more self-expression and autonomy in decision making:

H2. Employee's perception of supervisor's empowering leadership behaviors will be positively related to psychological safety.

Group conflict

Conflicts are common within the interpersonal context of teams, as disagreements and/or misunderstandings can occur whenever two or more employees interact. There are three types of group conflict: task, process and relationship (Jehn & Bendersky, 2003). Task conflict entails disagreements among group members about the content and outcomes of the task being performed (e.g. differences in viewpoints, ideas and opinions), whereas process conflicts are disagreements among group members about the logistics of task accomplishment, such as the delegation of tasks and responsibilities (Jehn & Bendersky, 2003; de Wit, Greer, & Jehn, 2012). Relationship conflict involves irritation about personal taste and interpersonal style, disagreements about political preferences, or opposing values (De Dreu & Van de Vliert, 1997). The traditional perspective views conflict as a malfunction within the group because conflict is regarded as bad and harmful to group development. Based on the interactionist view of conflict, however, to a certain extent task conflict and process conflicts can be functional while relationship conflict is always dysfunctional (De Dreu & Van de Vliert, 1997; De Dreu & Weingart, 2003). Recently, Turesky, Smith, and Turesky (2020) found that building a high-trust environment and managers' effective conflict resolution skills were critical to performance of virtual teams.

Psychological safety and group conflict. Bradley, Postlethwaite, Klotz, Hamdani, and Brown (2012) found that psychological safety climate moderates the relationship between task conflict and performance. Kostopoulos and Bozionelos (2011) also reported that task conflict positively moderated the relationship between psychological safety and exploitative learning. Martins, Schilpzand, Kirkman, Ivanaj, and Ivanaj (2013) found the moderating roles of team psychological safety and relationship conflict on the relationship between team cognitive diversity (i.e. expertise and expertness diversity) and team performance. Few empirical studies have examined the direct relationship between psychological safety and group conflict:

> *H3.* Employee's perception of psychological safety will be negatively related to group conflict.

Mediation effects. When employees perceive an overall organizational climate of internal trust based on senior leadership's trustworthiness, integrity and benevolence, we believe employees will have higher psychological safety, which in turn leads to lower group conflict. Based on social exchange theory (Blau, 1964), employees appear to reciprocate the treatment they receive from the organization. As Ugwu *et al.* (2014) reported, researchers found the positive effect of organizational trust on work outcomes such as job satisfaction, organizational commitment and organizational citizenship behavior. In a similar vein, we believe that organizational trust, as a distal antecedent, will be associated with group conflict via psychological safety. Thus, we propose that an overall trust level in organization brings psychologically safe climate in team level, which eventually will reduce the level of conflict in a group:

> *H4.* Employee's perception of organizational trust will be indirectly associated with group conflict through psychological safety.

We also propose that empowering leadership is likely to be indirectly related to group conflict via psychological safety. When their leader exhibits empowering leadership, emphasizing the significance of work, encouraging participation in decision making, conveying confidence of their excellent performance and removing bureaucratic obstacles, employees will feel safer psychologically. It will encourage employee's voice behavior and

learning behaviors such as information-sharing, feedback-seeking, asking help and mistakes-reporting. In this process, they will perceive less group conflicts:

H5. Employee's perception of empowering leadership behaviors will be indirectly associated with group conflict through psychological safety.

Methods
Sample and data collection
We distributed a survey to a total of 750 employees in a global automobile company headquartered in South Korea. We collected data from 654 employees, and used 633 responses were included in the final analysis. In accordance with the relevant ethics codes in South Korea, we assured confidentiality in using the data and written informed consent in the data collection process. We used a five-point Likert scale for the survey. In terms of demographics, 75% were male and the mean age was 35. As for the job level 32% were senior managers, 54% were junior managers or supervisors and 14% were associate-level employees. Most had a four-year college graduate or higher degree.

Measures
Psychological safety. For psychological safety, we adopted six items from Edmondson's (1999) psychological safety scale to assess the extent to which a member in an organization feels psychologically safe to take risks, speak up and discuss issues openly. A sample item is "Members of this team are able to bring up problems and tough issues." The Cronbach's alpha for this measure was 0.87.

Organizational trust. In this study organizational trust refers to the employees' overall belief in the climate of trust within an organization. We used four items from Huff and Kelly (2003) study, which was a general unidimensional instrument for measuring organizational trust. A sample item is "There is a very high level of trust throughout this organization." The Cronbach's alpha for this measure was 0.85.

Empowering leadership. Empowering leadership was assessed by 12 items that were developed based on the conceptual work of Conger and Kanungo (1988) and the empirical work of Ahearne *et al.* (2005). A sample items is: "My manager believes that I can handle demanding tasks." The Cronbach's alpha for this measure was 0.95.

Group conflict. We assessed task, process and relationship conflict (three items each) from Jehn and Mannix (2001) study. Each group was asked to report the level of conflict that existed. A sample item is "How frequently was there emotional conflict among members on your team?" The coefficient alpha for group conflict as a unidimensional measure was 0.93.

Results
Measurement model assessment
To test potential common method variance (CMV), we conducted an exploratory factor analysis (EFA) for Harman's single factor test as described by Podsakoff *et al.* (2003). According to this approach, there is a CMV if the EFA result presents only one factor explaining the majority of the covariances of independent and dependent variables. An EFA of all scale items using a principal components method with varimax rotation revealed the presence of four distinctive factors with eigenvalues that were greater than 1.0. The result indicated that the first factor accounted for 41% of the variance and the four factors

accounted for 65% of the total variance. Therefore, we concluded the potential CMV issue was not severe in this study.

Because we used only existing validated measures, we conducted a confirmatory factor analysis (CFA) to assess the construct validity of the measurement model. The factor structure was assessed by statistically testing the fit between the proposed model and the measured data in terms of convergent and discriminant validity (Brown & Moore, 2012; Kline, 2005; Pett, Lackey, & Sullivan, 2003). Table 1 presents the CFA results. The goodness-of-fit indices included: Chi-square (χ^2), the root mean square error of approximation (RMSEA), the non-normed fit index (NNFI) and the comparative fit index (CFI). Compared to the one-factor model combining all items, by far, the four-facor model indicated a better fit the data (χ^2 = 3,218, df = 458; CFI = 0.95, NNFI = 0.96, SRMR = 0.06). As shown in Figure 1, all factor loadings were statistically significant, ranging from 0.69 to 0.86.

Descriptive statistics, correlations and reliabilities
Table 2 presents correlations among the four constructs and reliabilities. All correlation coefficients were significant, supporting all hypotheses. There was no evidence of multi-collinearity among the four constructs ($-0.031 < r < 0.69$). All measures demonstrated an adequate level of reliability (0.85–0.96).

	χ^2	df	χ^2/df	RMSEA	NNFI	CFI	SRMR
Four-factor model	3,218***	458	7.03	0.098	0.95	0.96	0.058
One-factor model	11,754***	464	25.33	0.200	0.87	0.88	0.140

Table 1.
Measurement model assessment by CFA
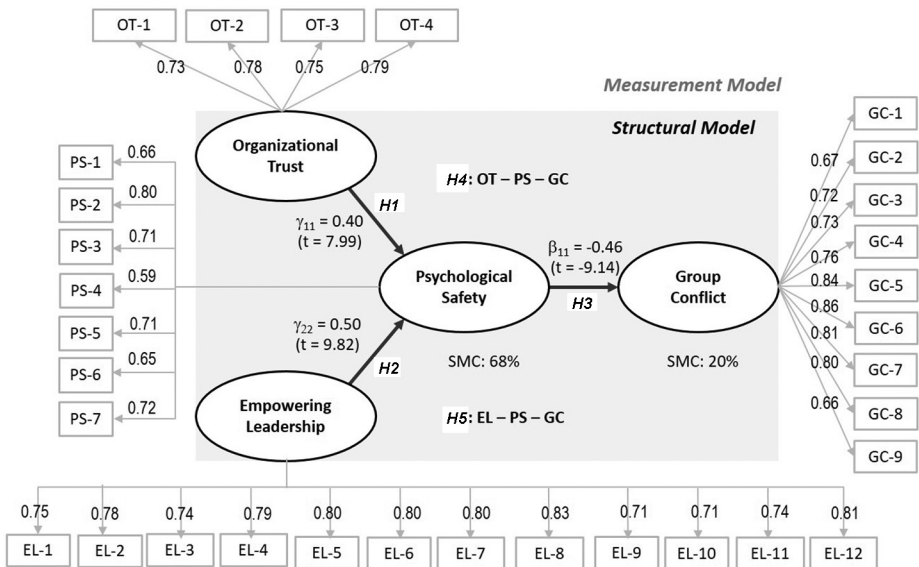
Notes: n = 633; ***p < 0.001

Figure 1.
Measurement and structural model

Structural model assessment
To examine the structural model, we conducted a structural equation modeling analysis. The structural model demonstrated an acceptable fit to the data (χ^2 [459] = 3,244; p = 0.00; NNFI = 0.95; CFI = 0.96; SRMR = 0.06). The overall structural model in Figure 1 indicated that all the relationships were statistically significant ($t > 1.96$). Organizational trust and empowering leadership accounted for 68% of the variance in psychological safety. Organizational trust, empowering leadership and psychological safety explained 20% of the variance in group conflict. The effect of empowering leadership ($t = 9.82$) on psychological safety was greater than organizational trust ($t = 7.99$). In addition, we ran an alternative structural model, adding the direct relationships between the two predictors (i.e. organizational trust and empowering leadership) and group conflict. However, they found to be non-significant.

Mediation testing
To test the mediation effect, we conducted Bootstrap analyses, using Hayes PROCESS Macro (Hayes, Preacher, & Myers, 2011). By creating 5,000 bootstrap samples, we calculated the percentage of estimates that were at or below zero in the distribution and compared this with an alpha of 0.05. Because zero was not in the 95% confidence interval, the values for the mediated effect indicated the significant indirect path, supporting *H4* and *H5*. Both organizational trust and empowering leadership had a significant indirect effect on group conflict through psychological safety (Table 3). Psychological safety fully mediated both relationships.

Discussion
Research findings
This study linked a culture of trust, leadership and psychological safety research, focusing more on the antecedents of psychological safety as well as its effect on group conflict. Based on the data analyses from 633 knowledge workers from a global automobile company in South Korea, we found that organizational trust and empowering leadership had the significant positive effects on employees' psychological safety. We found that organizational trust and empirical leadership indirectly related to group conflict through psychological safety. The role of psychological safety pivotal as a full mediator.

	Mean	SD	1	2	3	4	
Organizational trust	3.42	0.73	(0.85)				
Empowering leadership	3.67	0.75	0.64**	(0.95)			
Psychological safety	3.64	0.66	0.65**	0.69**	(0.87)		**Table 2.**
Group conflict	2.76	0.80	−0.32**	−0.31**	0.39**	(0.93)	Descriptive statistics, correlations and
Notes: n = 633; ***p < 0.001							reliabilities

	Estimate	Standard error	95% confidence interval (lower, upper)	
H4 (OT – PS – GC)	−0.223*	0.041	−0.306, −0.145	**Table 3.**
H5 (EL – PS – GC)	−0.249*	0.047	−0.342, −0.158	Indirect effects by
Notes: n = 663; *p < 0.05; bootstrap confidence intervals were constructed using 5,000 resamples				bootstrap analysis

Theoretical contributions

Psychological safety is a still emerging construct in management and organizational psychology (Edmondson, 2019). To date, only a handful studies have empirically examined the antecedents of psychological safety (Edmondson & Lei, 2014). Most psychological safety research has focused on its effect on employees' attitudes and behaviors. One of the theoretical contributions is that this is the first study that empirically examined psychological safety as a significant mediator between the two antecedents (i.e. organizational trust and empirical leadership) and group conflict. We found that organizational trust and empowering leadership accounted for 68% of the variance in psychological safety. We found empirical evidence that organizational trust cultivates a psychologically safe environment that encourages speaking up whereas lack of organizational trust leads to a culture of silence, which is dangerous and to a low level of psychological safety. Organizational silence, not speaking up one's opinion, is common in many organizations. Especially, it is true in a culture of collectivistic and high-power distance like South Korea, employees tend to have an implicit norm such as better safe than sorry (Joo, 2007). In terms of the role of leadership, variations in managers' behaviors can positively affect psychological safety. The role of supportive leadership is a vital force in facilitating employees and organizations to overcome the inherent barriers to voice and engagement (Edmondson, 2019). Frazier *et al.* (2017) reported a positive correlation between leadership (e.g. inclusive leadership and transformational leadership) and psychological safety. In this study, we first empirically examined the direct relationship between empowering leadership and psychological safety.

In addition, this study added a building block by providing a theoretical link between psychological safety and group conflict. We found that employees were less likely to feel conflicts in the team when they perceived a higher level of psychological safety. While a few previous studies examined a moderating role of psychological safety on group conflict, it is noted that we found the pivotal role of psychological safety as a full mediator in this study. More specific, although organizational trust and empowering leadership were not directly linked to group conflict, they indirectly reduced the level of group conflict via psychological safety. When employees perceive better trust in their senior leadership and organizational practices and when they have supportive leader demonstrating empowering leadership, employees appeared to feel psychologically safety, which eventually leads to lower group conflicts.

Practical implications

Research on psychological safety can be found in diverse settings: for-profit organizations, government organizations and nonprofits such as school systems and hospitals. Human resources and organization development professionals can help employees feel more psychologically safe in an organization by providing relevant leadership development programs and implementing organizational culture transformation that enhance the value of psychological safety. An overall culture of trust between management and employees is critical for employees to perceive an organization to be a psychologically safe workplace, which in turn leads to less conflicts in a team.

Building and reinforcing psychological safety is the responsibility of leaders at all levels of the organization. Psychological safety is fragile and needs continuous renewal. We found that empowering leaders can lead subordinates to a psychological safety in the workplace by pointing out the significance of the work, encouraging participation in decision making, exhibiting confidence in employees and removing bureaucratic obstacles. Thus,

organizations and HR practitioners should develop empowering leadership which will lead
to psychological safety and reduce task, process and relationship conflicts in their work unit.

Limitations and future research
This study has several potential methodological limitations. First, this empirical study
confines itself to the cross-sectional survey method with common method bias, which leaves
room for speculation about causality among the variables. Thus, the results of this study do
not to suggest the causal relationships. We suggest that future research be based on
different time frames or longitudinal studies, when collecting data. Second, this study relied
on self-reported and reflective recollections of the indicators by employees who volunteered
their participation. Future research needs to be based on multiple sources in multiple levels
of analysis including team level as well as individual level. Lastly, the sample of this study
was restricted to a certain group: employees of a South Korean company in an automobile
industry. To increase the generalizability, the results need to be replicated, based on the data
from the various cultural settings and from more diverse demographic samples. It is hoped
that this study will stimulate more research on the antecedents of psychological safety and
its role as a mediator in the future.

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Corresponding author
Baek-Kyoo (Brian) Joo can be contacted at: baekkyoo.joo@gmail.com