

**Authentic Leadership and Preoccupation with Failure: The Role of Psychological Safety
and Supervisor Organizational Embodiment**

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Abstract

Preoccupation with failure constitutes one of the most prominent characteristics of high-reliability organizations. However, we know very little about its antecedents and, particularly, the role of leadership in determining organizations' preoccupation with failure. As such, the present study examines the relationship between authentic leadership and preoccupation with failure. Using social exchange theory, we attempt to shed light on this association's underlying mechanisms and boundary conditions. More specifically, we highlight psychological safety as a mediator and supervisor organizational embodiment as a moderator in the authentic leadership-preoccupation with failure relationship. Data from a diverse sample of 329 US employees provided support for most of our hypotheses. Authentic leadership is positively related to preoccupation with failure through psychological safety. Moreover, the relationship between authentic leadership and psychological safety is stronger for leaders with higher levels of supervisor organizational embodiment as compared to those with low levels.

Keywords: Authentic leadership, psychological safety, preoccupation with failure, supervisor organizational embodiment, moderated mediation.

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Introduction

High-reliability organizations (HROs) are known to minimize the intensity of crises under their “mindfulness”, which is based on their five main principles: Preoccupation with failure, reluctance to simplify, sensitivity to operations, commitment to resilience, and deference to expertise (Weick and Sutcliffe, 2007). According to Sandberg and Tsoukas (2015), the practices of HROs advance a proactive sensemaking orientation. Their guiding principles imply a reasonable level of idiosyncrasy, as they treat any potential failure as a consequence of mistakes and negligence that occurred progressively (Weick and Sutcliffe, 2015).

In this study, we focus on the first principle of HROs, namely preoccupation with failure, an understudied topic till today. Per Weick and Sutcliffe (2007), preoccupation with failure indicates that unexpected events in the normal state of operations result from someone’s failure and have moral implications. According to Nizamidou and Vouzas (2020), preoccupation with failure can promote continuous improvement and resilience to possible future crises. We align with several researchers (Cole, 1994, 1998; Nizamidou and Vouzas, 2020; Portner *et al.*, 2014; Weick and Sutcliffe, 2007, 2015; Westphal, 2009) who optimize the importance of failure and how failure can be the most significant drive to success (Cole, 1994).

To date, both theoretical and empirical research has underlined the effect of various organizational factors on the preoccupation with failure and vice versa (Antonacopoulou *et al.*, 2017; Caldwell, 2017; Nizamidou and Vouzas, 2020; Portner *et al.*, 2014; Weick and Sutcliffe, 2007, 2015). Additionally, research has demonstrated that various contemporary leadership styles, such as empowering, learning, and servant leadership, can positively affect organizational mindfulness and its aspects (Carmeli and Sheaffer, 2008; Gracia *et al.*, 2020; Sousa and Van Dierendonck, 2017). However, only limited studies have focused on leadership's role in affecting an organization's preoccupation with failure. In addition, leadership has been a decisive factor in organizational functioning because it affects employees' emotions (Lee *et al.*, 2011), attitudes (Lan and Chong, 2015), and behaviors (De Roeck and Farooq, 2018).

In the present study, we focus on authentic leadership because it fosters favorable outcomes on both individual and organizational levels while creating sustainable long-term results (George *et al.*, 2007). More specifically, authentic leaders demonstrate self-awareness, transparency, and moral perspectives and are willing to communicate openly about their ideas and motives (Walumbwa *et al.*, 2008). Those characteristics constitute key elements for developing a culture that openly addresses, discusses, and resolves potential organizational problems and failures. Furthermore, authentic leadership is relevant to resolving different kinds of failures (Zhou *et al.*, 2014). Hence, we argued that it is conceivable that the specific contemporary leadership style may be related to preoccupation with failure.

We draw on social exchange theory (SET) as a core theoretical framework for the relationship between authentic leadership and preoccupation with failure. Social exchange theory posits that the relationships between supervisors, subordinates, and organizations develop via interdependent exchanges (Cropanzano and Mitchell, 2005). Authentic leadership is positively related to high-quality social exchange relationships (Chen and Shriphon, 2022). The social exchange approach posits that followers tend to reciprocate when their supervisors treat them fairly and with concern (Wang and Hsieh, 2013). On this basis, leaders who demonstrate authenticity place their subordinates’ well-being over their own, resulting in positive social exchanges with employees

(Du *et al.*, 2022). Consequently, they foster positive outcomes via these high-quality relationships (Avolio and Gardner, 2005; Blau, 1964; Gouldner, 1960).

As social exchange theory argues, mutual reciprocation between leaders and followers formulates trust-based relationships (Farid *et al.*, 2020). For example, followers are more likely to feel psychologically safe when their supervisor demonstrates authenticity and behavioral integrity (Liu *et al.*, 2015). Moreover, supervisor organizational embodiment represents the extent to which subordinates perceive their social exchange relationships with their supervisors as representatives of the social exchange relationships with their organizations. Thus, the higher the supervisor organizational embodiment, the more the subordinates identify their authentic supervisor with an authentic organization leading to even more psychologically safe employees.

Therefore, we suggest and test a model that attempts to explicate the underlying mechanisms and the boundary conditions under which authentic leadership relates to preoccupation with failure. Specifically, we argue that authentic leaders positively affect followers' level of psychological safety, which, in turn, facilitates an organization's preoccupation with failure. Even more, we propose that a supervisor's shared identity with the organization, namely supervisor organizational embodiment, could affect the magnitude of the positive effect of authentic leadership on employees' psychological safety (directly) and preoccupation with failure (indirectly) (Figure 1).

The present moderated mediation model contributes to the existing literature in several ways. First, we add to the limited research on the role of leadership, and more specifically authentic leadership, in determining preoccupation with failure. Second, by investigating psychological safety as a mediator in the relationship between authentic leadership and preoccupation with failure, we provide new insight into the underlying mechanisms through which this relationship occurs. Third, by examining SOE as a moderator, we offer a complete picture of the conditions under which authentic leadership may affect an organization's preoccupation with failure.

Figure 1. Hypothesized model.



Theoretical framework and hypotheses

Authentic Leadership and Psychological Safety

The process through which leaders are cognizant of their thoughts and behaviors is known as authentic leadership (Gardner *et al.*, 2005). Authentic leaders are conscious of their own values, moral viewpoints, capabilities, and knowledge, as well as those of their followers (Avolio and Walumbwa, 2006; Fladerer and Braun, 2020). They do not hesitate to make themselves vulnerable (Gardner *et al.*, 2021). They are conscious of their own personal authenticity and how they enable

subordinates to attain common aims and objectives (Clapp-Smith *et al.*, 2009). Moreover, they show authenticity in decision-making and moral awareness (Novicevic *et al.*, 2005; Tyler, 1997).

Authentic leadership includes balanced processing, self-awareness, relational transparency, and internalizing moral and ethical perspectives (Walumbwa *et al.*, 2008). Balanced processing relates to a leader's ability to consider and analyze objectively pertinent information before making a decision. Self-awareness refers to leaders' understanding of themselves and their mental condition (Neider and Schriesheim, 2011). Furthermore, when leaders rely on their principles, beliefs, and standards to guide their actions, regardless of external constraints, they are perceived as having a moral perspective. Last, relational transparency refers to leaders' willingness to communicate openly about their actual ideas and motives (Gardner *et al.*, 2005; Neider and Schriesheim, 2011).

The interaction between leaders and their subordinates is fundamental to authentic leadership (Avolio and Gardner, 2005; Wong and Cummings, 2009). Authentic leadership behaviors are viewed as "essentially collaboratively produced interactional outcomes" (Larsson *et al.*, 2021, p. 437). Authenticity in leaders has been linked to positive outcomes for followers, leaders, and organizations, especially as, according to social exchange theory, followers are willing to reciprocate when treated with concern by their leaders (Hsieh and Wang, 2015). Social exchange theory explains how people mutually implement reciprocation to finally build a relationship based on trust (Cropanzano and Mitchell, 2005). Whereas, if individuals perceive their leaders as not transparent and authentic, they regularly conceal crucial aspects of themselves and their emotions (Crossan *et al.*, 2021). Hence, employees are more likely to follow leaders who demonstrate authenticity.

When ethical challenges arise and leaders make moral choices, they must participate in ethical and transparent decision-making processes. Making fair and moral judgments is critical in social, political, and corporate environments (Sarros and Cooper, 2006). In this context, it is pivotal to rely on authentic leaders. Their values guide authentic leaders' behavior and are honest and open in their relationships (Gardner *et al.*, 2005; Kernis, 2003). By demonstrating transparent decision-making, these leaders are also perceived to lead by example (Avolio and Gardner, 2005). In this vein, authentic leaders maintain positive relationships with their subordinates (Darvish and Rezaei, 2011) so their followers feel more comfortable with them.

Drawing on the social exchange theory, this interaction between leaders and followers can establish positive social exchanges with followers (Ilies *et al.*, 2005). Such proximal relationships are likely to lead followers to speak more freely about potential issues and problems in their work life. Moreover, followers are more inclined to perceive authentic leadership as a sign of behavioral integrity (Avolio *et al.*, 2004). Followers receive ambiguous information when leaders do not act according to their promises (Greenbaum *et al.*, 2015), which results in feeling psychologically threatened. On the contrary, psychological safety refers to employees' perception of the dangers associated with their work environment. This perception is based on a subconscious belief about how others will react when an employee is in a given circumstance (Edmondson *et al.*, 2004; Roussin, 2008).

Authentic promotes behavioral integrity, or the degree to which leaders' words and actions are in sync (Simons, 2002). Bradley-Cole (2021) states that authentic leaders impact their subordinates' psychological work experience. When a supervisor inspires and encourages rather than commands, subordinates are likely to feel psychologically safe. Based on the social exchange theory, that is because of the mutual reciprocation to finally build a relationship depending on trust between

leaders and followers (Farid *et al.*, 2020). Such leaders demonstrate concern for their followers' needs and feelings, providing, thus, constructive feedback that not only allows them to learn new abilities but also motivates them to express their thoughts without fear of retaliation (Edmondson, 1999; Nayani *et al.*, 2022; Roussin and Webber, 2012).

When people feel psychologically safe, they believe others will accept and not criticize their behavior (Edmondson, 1999). Authenticity is continually comprehending one's inner thoughts, ideas, and feelings, as well as behavior that reflects one's true self (Gardner and Schermerhorn, 2004). Thus, authentic leaders' behaviors and thoughts are transparent and predictable. Their support, openness, and transparency contribute to developing a trusting connection with subordinates, reducing organizational ambiguity, and enhancing followers' feelings of safety (Liu *et al.*, 2017). On this basis, authentic leaders are likely to promote employees' psychological safety (Liu *et al.*, 2015). Therefore, we hypothesize the following:

H1: Authentic leadership is positively related to psychological safety.

Psychological Safety and Preoccupation with Failure

One of the fundamental principles of HROs is the preoccupation with failure (Weick and Sutcliffe, 2007). HROs are preoccupied with failure and "treat any lapse as a symptom that something may be wrong with the system, something that could have severe consequences if several small errors happen to coincide" (Weick and Sutcliffe, 2007, p. 9). HROs have strategies that indicate mistakes people should avoid (Weick and Sutcliffe, 2007). Perin (2005) states that even though organizations may have precise operating and safety systems, preoccupation with failure indicates that we should identify and rectify any mishap, error, or miscommunication before getting into a more significant problem or even a crisis.

Recent research suggests that employees can detect any mishap, near miss, or even failure in organizational operating systems (Nizamidou *et al.*, 2019; Nizamidou and Vouzas, 2021). Nonetheless, for employees to report them, it is a prerequisite that they feel safe to do so; otherwise, they will probably ignore them or try to conceal them (Antonacopoulou *et al.*, 2017; Nizamidou and Vouzas, 2018, 2020; Weick and Sutcliffe, 2007). According to social exchange theory, when there is trust between supervisors and subordinates, reciprocation is fostered (Farid *et al.*, 2020). As a result, a climate of psychological safety and openness can encourage employees to report and openly discuss mistakes to find the best way to correct them (Edmondson, 1999). It may increase their trust, openness, and support for change (Men *et al.*, 2020) as well as enhance their engagement and performance (Gutermann *et al.*, 2017).

Psychological safety can embolden employees to speak up, challenge the status quo, propose ideas to improve processes, and promote organizational learning (Edmondson and Lei, 2014). In recent research, Potipiroon and Ford (2021) proved that employees who perceive more significant psychological safety were committed to more prohibitive and helpful voice behaviors, mainly when their leaders use humor frequently. According to Liu *et al.* (2016), psychological safety mediates the impact of abusive supervision on employees' creativity. When employees feel safe, they can report near misses and degraded situations, anticipating that unintentional mistakes will be recognized positively (Caldwell, 2017). HROs, especially in the healthcare and aviation industries, have been advancing improvements in quality and reporting safety concerns, promoting

their preoccupation with failure (Caldwell, 2017; Weick and Sutcliffe, 2007, 2015). According to Westphal (2009), maintenance mistakes may be significantly reduced as members are encouraged to undertake personal responsibility for the safety of those who openly communicate mishaps and errors. The latter can make individuals more preoccupied with failure, increasing at the same time the overall organization's level of preoccupation with failure. Based on the above, we hypothesize the following:

H2: Psychological safety is positively related to preoccupation with failure.

Authentic Leadership, Psychological Safety and Preoccupation with Failure

Shen and Kin (2012) argued that organizational authenticity comprises three aspects: truthfulness, transparency, and consistency. Moreover, they highlighted that authentic leaders are honest with themselves. In a similar vein, authentic organizations also need to act sincerely (Shen and Kin, 2012). Recent research showed that authentic leaders had a significant effect on employees' outcomes, such as creativity (Ribeiro *et al.*, 2020), commitment, satisfaction, relational trust, and a sense of shared control toward the organization (Men, 2021), as well as the organization's CSR commitments (Fox *et al.*, 2020).

Authentic leaders are likely to promote employees' psychological safety. Research showed that supervisors with authentic leadership styles could promote a climate of psychological safety among their subordinates (Edmondson, 1999; Maximo *et al.*, 2019), encouraging them to share their thoughts and hesitations openly. Authentic leaders form positive attitudes toward CSR among subordinates and their subsequent reactions to it in the mode of enriched experiences of psychological meaningfulness (Chaudhary, 2021). As per George (2007), authentic leaders continuously attempt to maintain their authenticity and sense of learning and optimize their failures as an opportunity to improve themselves. Authentic leaders inspire their subordinates to act likewise. They worry endlessly and assist employees in worrying about errors (Caldwell, 2017).

Organizations constantly preoccupied with failure observe signs of mishaps/malfunctioning or even minor mistakes that can escalate to more significant problems. Moreover, they review processes and systems aiming to eliminate these signs (Nizamidou and Vouzas, 2017, 2020; Portner *et al.*, 2014; Weick and Sutcliffe, 2007, 2015). Authentic leaders develop an organization's competency to prepare for problems, as they are committed to allocating weak signals of failure and encouraging their subordinates to detect and act upon them (Caldwell, 2017; Gardner *et al.*, 2005). As such, authentic leaders can increase the organization's preoccupation with failure.

Thus far, we have argued that authentic leadership is likely to foster employees' psychological safety (hypothesis 1) and that the latter is positively associated with preoccupation with failure (hypothesis 2). Combining these hypotheses with the above argumentation that suggests the relationship between authentic leadership and preoccupation with failure, we form the following hypothesis:

H3: Psychological safety mediates the relationship between authentic leadership and preoccupation with failure.

Supervisor Organizational Embodiment as a moderator

Employees perceive their supervisor as having beliefs, intentions, and goals that may or may not align with the organization. Employees acknowledge that their supervisors face them as individuals based on representing the organization (Shoss *et al.*, 2013). Eisenberger *et al.* (2010) noted that employees tend to identify their supervisor with the organization, which is called supervisor organizational embodiment (SOE).

Employees recognize that their supervisor's directive, evaluative, and counseling duties are performed on behalf of the organization, leading them to generalize their feelings about the quality of their supervisor-organization connection. Thus, by evaluating the employee-organization relationship, it is suggested that employees view their managers as both organizational agents and individuals. Based on the supervisor's similarity with the organization as perceived by their followers, this variation in perceived alignment may affect the extent to which employees generalize the favorableness of their exchange relationship from the supervisor to the organization (Eisenberger *et al.*, 2010).

Social exchange theory is a core underlying mechanism for understanding attitudes and behavior in the organizational context (Cropanzano and Mitchell, 2005). Social exchange theory explains how the relationships between supervisors, subordinates, and organizations develop via interdependent exchanges (Cropanzano and Mitchell, 2005). Drawing on the social exchange theory, it is argued that authentic leaders establish positive social exchanges with followers (Ilies *et al.*, 2005). Additionally, SOE is found to represent the extent to which followers perceive their social exchange relationships with their supervisors as representatives of the social exchange relationships with their organizations (Mackey *et al.*, 2018).

Consequently, the higher the SOE, the more the subordinates identify the supervisor with the organization (Shoss *et al.*, 2013). Thus, they tend to experience the treatment they receive from their supervisor as organizational treatment (Rice *et al.*, 2021). In this sense, an authentic leader represents an authentic organization. For instance, when SOE is high, a leader's authentic behavior is recognized as organizational authenticity.

Given that authenticity can positively affect employees' psychological safety, under conditions of high SOE, this effect could be reinforced. Conversely, when SOE is low, a supervisor's actions and behaviors may be viewed as acting on their behalf rather than on their organization's behalf. In this case, a leader's authentic behavior is recognized as coming from the supervisor and not from the organization in general. Therefore, an authentic leader does not always reflect an authentic organization. In line with this, we posit that employees' psychological safety is anticipated to be more affected by authentic supervisors when the latter embodies the organization to a greater degree. Thus, we suggest the following hypothesis:

H4: SOE moderates the relationship between authentic leadership and psychological safety such that the relationship between authentic leadership and psychological safety is stronger when SOE is high compared with when SOE is low.

Moderated Mediation

Until now, we have suggested an indirect relationship between authentic leadership and preoccupation with failure through the underlying mechanism of psychological safety. We also proposed that SOE moderates the positive linkage between authentic leadership and preoccupation with failure. Taken together, we suggest the following hypothesis:

H5: The indirect relationship of authentic leadership with preoccupation with failure through psychological safety is moderated by SOE, such that the indirect relationship is stronger for high levels compared to low level of SOE.

Method

Sample and Procedure

In this study, in July 2022, we collected data from a diverse sample of US full-time employees from various sectors (e.g., healthcare, retail, education, finance, and banking). We chose to use a diverse sample as our target population to enhance our confidence in our findings and increase their generalizability (Schyns *et al.*, 2008; Zhang and Guo, 2019). As for our sample, 46.5 percent of the 329 respondents in the survey were men, while 52.3 percent were women. Most of them (93.6%) are employed at medium-sized enterprises (50 to 249 employees), and the rest of them (6.4%) are employed at small enterprises (10 to 49 employees). Employees ranged in age from 19 to 69 years old. The average age was 36.63 years ($SD = 10.97$). In terms of education level, 17.6 percent were high school graduates, 53.8 percent had a university degree, and 18.8 percent had a master's degree. Furthermore, the average organizational tenure was 6.02 years ($SD = 5.79$; ranging from 0 to 31 years) and job experience was 14.95 years ($SD = 10.86$; ranging from 0 to 49 years) among respondents.

Measures

All measures in this study used a five-point Likert scale where 1 = strongly disagree and 5 = strongly agree. All scale reliability coefficients (Cronbach's) were acceptable, exceeding 0.70 which Nunnally and Bernstein (1967) recommended.

Authentic leadership

We used the fourteen-item scale developed by Neider and Schriesheim (2011) to assess authentic leadership. An example statement is "My supervisor shows consistency between his/her beliefs and actions". Each item was answered on a five-point Likert scale, with 1 being strongly disagree and 5 being strongly agree. Cronbach's alpha for this scale was 0.95.

Psychological safety

The seven - item scale from Baer and Frese (2003) was used to assess psychological safety. This scale consists of statements like "No one in our organization would deliberately act in a way that undermines others' efforts" and "In our organization one is free to take risks". Each item was answered on a five-point Likert scale, with 1 being strongly disagree and 5 being strongly agree. Cronbach's alpha for this scale was 0.85.

Supervisor organization embodiment

The nine - item scale from Eisenberger *et al.* (2010) was used to assess supervisor organization embodiment with a sample item being “When my supervisor encourages me, I believe that my organization is encouraging me”. Each item was answered on a five-point Likert scale, with 1 being strongly disagree and 5 being strongly agree. This scale’s Cronbach’s alpha was 0.94.

Preoccupation with failure

Preoccupation with failure was measured using the ten - item scale from Weick and Sutcliffe (2007). An example item is “We often update our procedures after experiencing a near miss”. These items ranged from 1 (not at all) to 5 (a very great deal). The Cronbach’s alpha for this scale was 0.88.

This study used as control variables four demographic variables namely gender, age, educational level, total professional experience, and organizational tenure. Given that none of the above demonstrated significant bivariate correlations with the present outcomes, they were not included in the subsequent analysis (Becker, 2005).

Results

Means, standard deviations, reliabilities, and correlations for all variables are demonstrated in Table I. Authentic leadership is positively related to psychological safety ($r = 0.63$, $p < 0.01$), and preoccupation with failure ($r = 0.57$, $p < 0.01$) whereas psychological safety is positively correlated with preoccupation with failure ($r = 0.65$, $p < 0.01$).

Confirmatory Factor Analysis

Confirmatory factor analysis was conducted in order to demonstrate discriminant and convergent validity. Regarding the discriminant validity, the results showed that the measurement model provided a good fit to the data ($\chi^2 [678] = 1516.05$, $p < 0.01$, TLI = 0.90, CFI = 0.91, IFI = 0.91, RMSEA = 0.06). In contrast to the alternative models, our measurement model fitted the data significantly better (Table II) and, therefore, we supported the distinctiveness of the present constructs. In addition, all the items (except for one of the preoccupation with failure scale) were significantly related to their respective latent variables. Thus, we provided support for the convergent validity.

We also attempted to mitigate and assess the potential effect of common method bias. Regarding the former, we assured the respondents of their anonymity and confidentiality and encouraged them to be as honest and spontaneous as possible (Chang *et al.*, 2010). Furthermore, we attempted to limit this threat by utilizing ex ante (web survey) and ex-post efforts. As regards the ex-post attempt to assess the specific phenomenon, we utilized Harman’s one-factor test (Podsakoff *et al.*, 2003). The results showed a poor fit for the single factor ($\chi^2 [684] = 2978.09$, $p < 0.01$, TLI = 0.73, CFI = 0.75, IFI = 0.75, RMSEA = 0.10), suggesting that common method bias may not be a serious threat in our analyses.

Table I. Descriptive statistics, reliabilities, and correlations.

	Mean	SD	1	2	3	4	5	6	7	8	9
1. Gender	0.53	0.50									
2. Age	36.63	10.97	-0.09								
3. Educational level	2.27	1.00	-0.01	0.13*							
4. Total professional experience	14.95	10.86	-0.05	0.93**	0.06						
5. Organizational tenure	6.02	5.79	-0.05	0.59**	0.08	0.58**					
6. Authentic leadership	3.83	0.79	-0.60	0.02	0.10	0.03	0.00	(0.95)			
7. Psychological safety	3.59	0.81	-0.06	0.10	0.05	0.10	0.07	0.63**	(0.85)		
8. Preoccupation with failure	3.32	0.79	-0.08	0.10	0.06	0.09	0.07	0.57**	0.65**	(0.88)	
9. Supervisor organizational embodiment	3.60	0.91	0.03	0.09	0.00	0.08	0.06	0.56**	0.54**	0.49**	(0.94)

Notes: * $p \leq 0.05$, ** $p \leq 0.01$

Table II. Confirmatory factor analysis.

Model	X²	df	TLI	CFI	IFI	RMSEA
Four factor model	1516.05	678	.90	.91	.91	.06
Three factor model: Authentic leadership and psychological safety	1782.48	681	.87	.88	.88	.07
Three factor model: Authentic leadership and SOE	2359.44	681	.80	.82	.82	.09
Three factor model: Authentic leadership and preoccupation with failure	2113.43	681	.83	.84	.85	.08
Three factor model: Psychological safety and preoccupation with failure	1738.64	681	.88	.89	.89	.07
Three factor model: Psychological safety and SOE	1952.92	681	.85	.86	.86	.08
Three factor model: Preoccupation with failure and SOE	2294.31	681	.81	.82	.83	.09
One factor model	2978.09	684	.73	.75	.75	.10

Hypotheses tests

We used SPSS macro to test the present hypotheses (Preacher *et al.*, 2007). The results are presented in Table III. Results showed that authentic leadership is positively related to subordinates' psychological safety ($B = 0.65$, $S.E. = 0.04$, $t = 14.73$, $p < 0.01$) supporting the first hypothesis. Likewise, our findings supported the second hypothesis which stated that there is a positive relationship between psychological safety and preoccupation with failure ($B = 0.47$, $S.E. = 0.05$, $t = 9.12$, $p < 0.01$). Furthermore, the results supported the mediating role of psychological safety in the relationship between authentic leadership and preoccupation with failure (hypothesis 3). More specifically, bootstrapping results (5000 bootstrap samples with 95% confidence intervals) demonstrated that the indirect effect does not contain zero (0.22, 0.40).

Table III. Regression Analysis.

Variables	B	SE	t	p
Psychological Safety regressed on Authentic Leadership	0.65	0.04	14.73	0.00
Preoccupation with failure regressed on Psychological Safety, controlling for Authentic Leadership	0.47	0.05	9.12	0.00
Preoccupation with failure regressed on Authentic Leadership, controlling for Psychological Safety	0.27	0.05	5.04	0.00
	M	SE	L95% CI	U95% CI
Bootstrap results for indirect effect	0.30	0.04	0.22	0.40

Note: Unstandardized regression coefficients reported. Bootstrap sample size 5.000. L = lower limit; U = upper limit, CI = confidence interval.

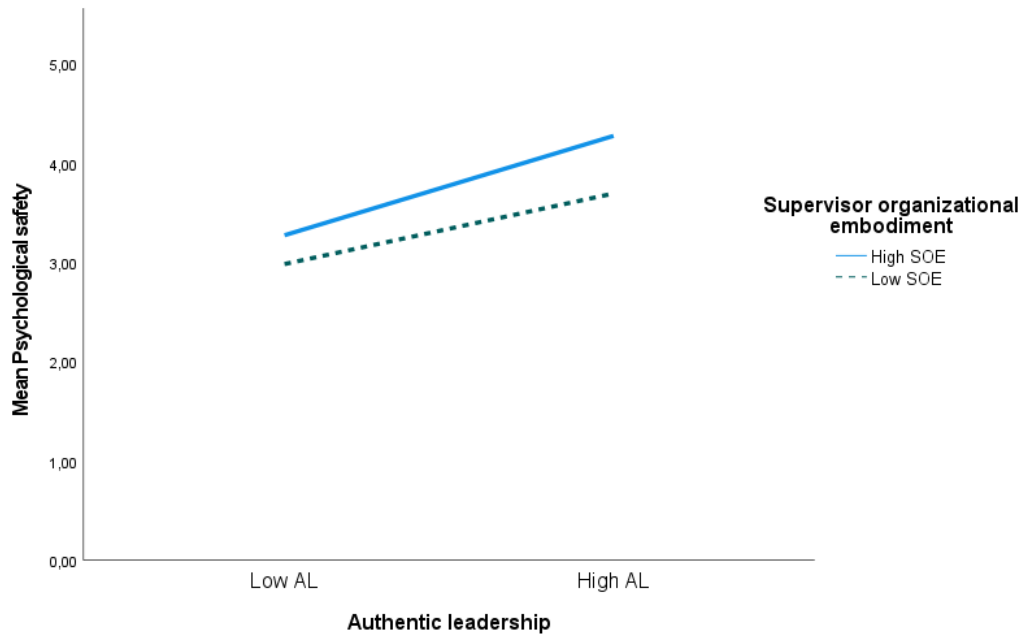
As for the fourth hypothesis, the interaction of authentic leadership with supervisor organizational embodiment in predicting psychological safety was tested. To deal with the issue of multicollinearity, all variables were mean-centered before continuing with the specific analysis. The results (Table IV) also supported this hypothesis ($B = 0.10$, $S.E. = 0.04$, $t = 2.54$, $p < 0.05$). We used slope analysis to further explore the aforementioned interaction (Aiken *et al.*, 1991).

Table IV. Moderated Regression Analysis.

Variables	Psychological Safety
Authentic Leadership	0.54**
Supervisor Organizational Embodiment	0.24**
Authentic Leadership $\times$ Supervisor Organizational Embodiment	0.10*

* $p \leq 0.05$, ** $p \leq 0.01$.

Figure 2. Interaction between authentic leadership and supervisor organizational embodiment.



The results showed that for high SOE there is a stronger relationship between authentic leadership and psychological safety ($B = 0.64$, $S.E. = 0.08$, $t = 8.43$, $p < 0.01$) compared to the low SOE ($B = 0.45$, $S.E. = 0.05$, $t = 8.31$, $p < 0.01$). Figure 2 shows this interaction effect. Last, the fifth hypothesis suggested that the indirect effect of authentic leadership on preoccupation with failure through psychological safety is contingent on supervisor organizational embodiment. The results did not support the moderated mediation hypothesis (hypothesis 5) since bootstrapping results (5000 bootstrap samples with 95% confidence intervals) demonstrated that the indirect effect does contain zero ($-0.01, 0.10$).

Discussion

Drawing on social exchange theory, we investigated the indirect relationship between authentic leadership and organizations' preoccupation with failure through employees' psychological safety. In addition, we examined that the relationship of authentic leadership with both psychological safety (directly) and preoccupation with failure (indirectly) is dependent on employees' perceptions about SOE. The present results supported most of our hypotheses demonstrating that authentic leadership related positively to psychological safety and, in turn, preoccupation with failure. Moreover, we found that the relationship between authentic leadership and employees' psychological safety was stronger when SOE was high compared to the low levels of SOE.

Theoretical implications

Recent research has focused on the antecedents of organizations' preoccupation with failure, including reflexivity (Antonacopoulou *et al.*, 2017) and mindfulness techniques such as quiet

mediation, mindful reflection, and communication (Hales and Chakravorty, 2016). Additionally, leadership mindfulness and mindfulness in communication concentrate on the internal states of the leader (Brandt *et al.* 2019; Decuyper and Pircher Verdorfer, 2022). Nevertheless, we know very little about the role of contemporary leadership styles in affecting this specific principle of HROs. In this vein, we examined the relationship between authentic leadership and preoccupation with failure through employees' psychological safety. In supporting the above indirect relationship, these findings provide novel insights and highlight the critical role that leadership, particularly authentic leadership, may play in determining preoccupation with failure.

Previous studies have shown the mediating role of psychological safety in the effect of abusive supervision on employees' creativity (Liu *et al.*, 2016). Furthermore, our study demonstrated that employees' psychological safety plays a mediating role in the relationship between authentic leadership and preoccupation with failure. As such, the present findings highlight a mechanism that may explain why authentic leadership promotes preoccupation with failure. In parallel, our findings point out antecedents and outcomes of employees' psychological safety. More specifically, in line with past empirical research, we showed that authentic leadership is associated with employees' psychological safety (Liu *et al.*, 2015). Even more, our findings contribute to the limited literature by indicating the relationship between psychological safety and preoccupation with failure. Put differently, we suggest that when employees experience high levels of psychological safety, this can help an organization develop an essential characteristic of HROs: the preoccupation with failure.

In addition to the above indirect relationship between authentic leadership and organizations' preoccupation with failure, we also examined the conditions under which this relationship occurs. More specifically, we demonstrated that authentic leaders with high SOE have a more significant effect on psychological safety than leaders with low SOE. These findings corroborate prior empirical research suggesting that when employees identify their supervisor with the organization, this may strengthen the (positive or negative) effect of leaders' behaviors and styles on employees' reactions (e.g., Costa *et al.*, 2022; Stinglhamber *et al.*, 2015). We also went one step further and examined whether SOE could moderate the indirect relationship of authentic leadership with the preoccupation with failure through psychological safety. Contrary to our expectations, the present findings could not provide support for the moderated mediation.

Practical Implications

From practitioners' perspectives, the current findings have important implications for supervisors and organizations. Given its essential role in affecting psychological safety and, eventually, preoccupation with failure, leaders and managers should be made more aware of this vital construct as leader authenticity has a positive role in fostering psychological safety and, eventually, preoccupation with failure. Leaders should stay authentic to understand their employees' values and strengths fully. Supervisors, for example, should be genuine, admit their weaknesses and values and the values of others, and make subordinates feel secure.

Authentic leaders should be chosen during the employment process. Specifically, recruiters must search for candidates who demonstrate balanced processing, self-awareness, internalization of moral and ethical perspectives, and relational transparency. These candidates demonstrate behaviors like fair and transparent information sharing, exposing the causes of decision outcomes, including employees in decision-making, and seeking frequent employee feedback (Bamford *et*

al., 2013). Additionally, training programs about authenticity's benefits should be established. Supervisors should conduct workshops on diverse, authentic leadership subjects, and authentic leadership experts should deliver courses (Groves, 2006). Finally, a leadership development mindset should indeed be encouraged throughout the organization. Organizations should prioritize real leadership development and create a supportive organizational culture (Bryant and Wolfram Cox, 2014; Groves, 2006).

Strategies for fostering leaders' relational transparency are setting different leadership role expectations, particularly performance linked to relational transparency, such as the expectation that leaders establish open and transparent connections and are approachable to their followers (Bamford *et al.*, 2013). Leaders' balanced processing could be supported by holding meetings with employees that provide them the opportunity to present new concepts and address organizational concerns. This would give supervisors the chance to get information from their colleagues. Presenting supervisors with case studies that address ethics and moral challenges and emphasizing leadership in action could help them develop the moral dimension of leadership (Brown and Trevino, 2006). Executive coaching, mentoring, networking, and special assignments are additional ways for leadership development (Groves, 2006).

Furthermore, this study emphasizes the need to create an environment that encourages people to feel safe and learn from their failures. Many organizations develop a structure that promotes success and penalizes failure. The traditional punitive approach may encourage undesirable behaviors such as concealing mistakes or fabricating reports to boost performance. Fostering a learning attitude toward failures or mistakes makes employees feel safe. As a result, it reduces the costs of failures while maximizing the learning opportunities that could improve procedures. To accomplish this learning orientation, managers must establish a culture that is more receptive to speaking up about mistakes and conditions that tend to cause difficulties. This could be aided by leaders cultivating a climate of a collaborative effort to identify flaws in the existing work environment, manage the costs of failure, and collect information for future practice.

First, we identified organizational embodiment as a boundary condition that implies that organizations must guarantee that their values and standards are aligned with their leaders' behavior. Thus, it is essential to remember that acts targeted at promoting authentic leadership may have little impact on subordinates' attitudes toward the company unless combined with others directed at boosting leaders' organizational embodiment. Hence, organizations must take steps to improve the alignment of company aims and values with supervisors' ideals. Fostering supervisors' identification with the company could be one method to boost SOE, too (Eisenberger *et al.*, 2010).

Developing a clear mission statement that describes the organization's viewpoints, using it as a guide for making decisions, and recognizing individuals who embody and sustain the organization's core values are examples of how organizations could help people develop organizational identification (Kreiner and Ashforth, 2004). In this context, organizations may consider supervisors' identification with the entity when evaluating leadership selections.

Limitations and Suggestions for Future Research

As in any research, the present study has some limitations that need to be addressed. First, we adopted a cross-sectional method design, which may cause problems vis-à-vis causality and standard method issues. For instance, regarding the former, it is conceivable that preoccupation with failure may lead to psychological safety. In addition, some of the present relationships may be inflated due to common method bias. However, several authors have pointed out that such bias is overstated (Chang *et al.*, 2010; Spector, 2006), and it is more challenging to demonstrate interaction effects when common method bias occurs. Second, our participants came from a diverse sample, and this lack of homogeneity may limit our findings. Third, despite the diversity of our sample, there were all U.S. citizens; therefore, we need to be cautious about the generalizability of our findings to other cultures.

Given the above limitation, future research could benefit from adopting a longitudinal design because, in this way, more robust causal relationships would emerge. Moreover, future studies could examine the present model in contexts that may differ significantly from the U.S.A. regarding power distance or collectivism. Additionally, future studies could include more than one country to explore potential differences in the findings of these countries. Furthermore, an interesting research avenue for future research would be to investigate the effect of authentic leadership on other characteristics of high-reliability organizations, such as reluctance to simplify or deference to expertise. Similarly, other contemporary leadership styles, such as ethical or empowering, could be useful in determining preoccupation with failure or other characteristics of high-reliability organizations. Last, given that the results of the moderated mediation hypothesis are marginally non-significant, future studies could benefit from replicating it in other samples.

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