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Review

Self-efficacy and nontask performance at work. A meta-analytic summary

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ABSTRACT

Self-efficacy plays a critical role in guiding and maintaining behaviours across various life domains, including organisational settings where it enhances task-specific performance. This paper extends the role of self-efficacy to nontask or contextual performance, focusing on citizenship and counterproductive performance. Through a systematic review and meta-analysis, we examine its role as both an antecedent and a moderator. Among 11,877 records, 176 papers (194 independent studies) were included in the systematic review, and 158 papers (172 independent studies) in the meta-analysis. Findings support our hypotheses. In relation to citizenship performance ($N = 49,464$) results showed that self-efficacious individuals are more likely to engage in extra-role activities, fostering personal, collective, and organisational development ($\bar{r} = .45$). They exhibit proactive behaviours such as voicing concerns, providing exceptional customer service, and helping behaviours. Additionally, self-efficacy serves as a protective factor against counterproductive and antisocial performance detrimental to organisations and stakeholders ($N = 12,498$, $\bar{r} = -.24$). While studies on the moderation of self-efficacy are limited, our systematic review confirms its role in buffering the impact of adverse working conditions on counterproductive performance.

1. Introduction

Self-efficacy (SE) – defined as the ‘belief in one’s capabilities to organise and execute the courses of action required to produce given attainments’ (Bandura, 1997, p. 3) – is crucial for orienting and sustaining behaviours across different domains of life (Bandura, 1997, 2001). Previous meta-analyses in the work context have demonstrated its positive role in promoting performance on job-specific tasks. Individuals with higher SE are more likely to approach work tasks and challenges with confidence, leading to better task performance (Alessandri et al., 2025; Haddad & Taleb, 2016; Judge et al., 2007; Sitzmann & Yeo, 2013; Stajkovic & Luthans, 1997).

Building on the literature on performance (Borman & Motowidlo, 1997; Campbell, 1990; Campbell & Wiernik, 2015; Lievens et al., 2008; Rotundo & Sackett, 2002), we argue that the effect of SE should extend beyond task performance to include nontask or contextual performance, which encompass both citizenship and counterproductive performance (Rotundo & Sackett, 2002). Citizenship performance refers to a range of

behaviours that, while not directly related to job tasks, contribute positively to the organisation (Rotundo & Sackett, 2002). These behaviours include prosocial and citizenship acts, such as making suggestions (i.e., voice), helping colleagues, and engaging in extra-role behaviours, all of which are both beneficial and commendable (Bateman & Organ, 1983; Gonzalez-Mulé et al., 2014; Morrison, 2023; Organ, 1977; Smith et al., 1983; Van Dyne & LePine, 1998). Conversely, counterproductive performance encompasses behaviours that are detrimental to the organisation and its stakeholders, such as aggression and deviance (Robinson & Bennett, 1995; Rotundo & Sackett, 2002; Sackett & DeVore, 2002; Spector et al., 2006).

This paper aims to systematically review and meta-analytically summarise the role of SE in relation to both citizenship and counterproductive performance. Consistent with the SE literature, we propose that SE may act as both an antecedent and a moderator. As an antecedent, SE is expected to promote citizenship and hinder counterproductive performance. Self-efficacious employees are more adept at regulating and self-reflecting on their behaviour. They set higher goals,

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persevere when facing challenges, and are more likely to choose 'productive' behaviours over counterproductive ones (Bandura, 1997; Fida et al., 2015; Fida, Tramontano et al., 2018; Paciello et al., 2023). As a moderator, SE is posited to serve as a personal resource, enabling employees to better manage workplace stressors and identify adaptive, constructive solutions (Fida et al., 2015). We expected that SE acts as a boundary condition in the relationships between detrimental/favourable workplace characteristics (Bandura, 1997; Fida et al., 2015; Fox & Spector, 2006; Siu et al., 2017; Stetz et al., 2006; Xanthopoulou et al., 2007) and both counterproductive (Fida et al., 2015) and citizenship performance (Abdullah & Wider, 2022).

1.1. Self-efficacy in the work context

Rooted in the social cognitive theory (Bandura, 1986), SE captures individuals' capability to exert control over their motivations, thoughts, and behaviours in pursuing specific goals (Bandura, 1997). It is a central concept in understanding human functioning and has been recognised as a key construct in contemporary psychological research (Judge et al., 2007).

SE is a domain-specific personality dimension that refers to individuals' beliefs about their own specific self-regulatory capabilities within a particular area of life (Bandura, 1997). The assumption is that individuals may perceive their efficacy differently across domains (Barbaranelli et al., 2018). In the work domain, SE has been examined in relation to a wide range of perceived self-regulatory capabilities, including managing work tasks (Barbaranelli et al., 2018; Parker, 1998), fostering creativity and innovation (Tierney & Farmer, 2002), regulating negative emotions (Barbaranelli et al., 2018; Deng et al., 2017), establishing and maintaining positive relationships at work (Fan et al., 2013; Wong & Law, 2002), being assertive and empathic (Barbaranelli et al., 2018) and moral regulation (Paciello et al., 2023). These dimensions have been considered particularly relevant for explaining the behaviours under study. Alongside this approach, other authors have adopted a broader approach, operationalising SE by combining a range of perceived self-regulatory capabilities, such as work self-efficacy and role breadth (Borgogni et al., 2010; Parker, 1998; Parker et al., 2006).

In addition to Bandura's theorisation, there is an alternative theoretical approach that views SE as a general, rather than domain-specific, dimension (Chen et al., 2001; Schwarzer, 1992). General SE is conceptualised as a trait-like personality variable (Chen et al., 2001; Schwoerer et al., 2005; Weitlauf et al., 2001) that reflects individuals' belief in their overall capability to effectively handle a wide range of situations, across various life domains (Judge et al., 1998). While these two approaches (domain-specific vs general) have been initially considered as opposite and incompatible (Bandura, 2006), it has been suggested that they could be viewed as complementary (Barbaranelli et al., 2018; Chen et al., 2001). Both constructs 'denote beliefs about one's ability to achieve desired outcomes, but the constructs differ in the scope (i.e., generality or specificity) of the performance domain contemplated' (Chen et al., 2001, p. 63).

Overall, literature suggests that self-efficacious individuals are proactive, set high standards for themselves, anticipate an effective plan of action, and exhibit persistence and resilience when facing setbacks (Bandura, 1997). In the organisational context, the positive relationship between SE and task performance has been confirmed in seminal meta-analyses (Judge et al., 2007; Sitzmann & Yeo, 2013; Stajkovic & Luthans, 1997) as well as in more recent contributions (Alessandri et al., 2025; Haddad & Taleb, 2016). However, this evidence primarily focuses on task performance and does not encompass nontask and contextual performance, which are crucial for organisational functioning and success (Borman & Motowidlo, 1997; Campbell, 1990; Campbell & Wiernik, 2015; Lievens et al., 2008).

Moreover, SE is an important personal resource (Xanthopoulou et al., 2007) that reflects the strength of an individual's self-regulatory mechanisms (Bandura, 1997). According to Bandura, human functioning

depends on the reciprocal interactions among personal characteristics, behavioural patterns, and contextual factors. Within this framework, SE plays a central role in shaping individuals' perceptions of environmental influences (Bandura, 1997). Individuals with higher SE are inclined to perceive environmental constraints as less stressful, as they are better able to anticipate how to deal with them (Bandura, 1997; Fida, Laschinger et al., 2018). Furthermore, those with higher SE are more likely to cope effectively with the negative effects of stressful conditions on their well-being and performance, underscoring the significant implications of SE for adaptive functioning (Fida et al., 2015).

1.2. Nontask performance

Over the years, several models of job performance have been developed (Campbell & Wiernik, 2015). There is consensus that performance should be considered as multidimensional, including both core task and nontask or contextual dimensions (Borman & Motowidlo, 1997; Campbell, 1990; Campbell & Wiernik, 2015; Rotundo & Sackett, 2002). While task performance refers to 'the activities that transform raw materials into goods and services that are the organization's products' (Borman & Motowidlo, 1997, p. 75), the latter includes both citizenship and counterproductive performance (Lievens et al., 2008; Rotundo & Sackett, 2002).

1.2.1. Citizenship performance

Citizenship performance encompasses a broad range of discretionary behaviours that positively contribute to the organisation and its employees (Rotundo & Sackett, 2002). These behaviours include organisational citizenship behaviours (OCBs; Organ et al., 2005), extra-role performance (Van Dyne et al., 1995), prosocial organisational behaviours (Brief & Motowidlo, 1986), and voice (Liu et al., 2022; Van Dyne & LePine, 1998). OCBs refer to actions that go beyond contractual tasks, such as helping and supporting colleagues, or attending non-mandatory meetings (Organ et al., 2005; Smith et al., 1983). OCBs are not explicitly acknowledged by the formal reward system but, when considered collectively, enhance the organisation's efficient and effective functioning (Organ et al., 2005). As highlighted by Lievens et al. (2008), these behaviours play a role in furthering the organisation's objectives by positively influencing its social and psychological environment.

In recent years, increasing attention has been directed toward voice, another key aspect of citizenship performance (Organ, 2018; Van Dyne & LePine, 1998). Voice refers to the voluntary expression of ideas and suggestions aimed at improving the work environment (Maynes & Podsakoff, 2014). Employees who engage in voice seek to enhance organisational effectiveness by proposing innovative ideas to leverage opportunities for improvement (promotive voice), or by addressing dissatisfaction and deficiencies at work (prohibitive voice) (Liang et al., 2012). Voice is widely regarded as a valuable and positive extra-role behaviour that benefits the team and/or the organisation (Morrison, 2011, 2023). However, unlike other forms of citizenship performance, voice presents a unique challenge. Although typically viewed as constructive, voicing concerns or suggesting changes is not always met with enthusiasm. Employees may hesitate to voice their opinions due to the potential for negative consequences in certain contexts (Ng & Feldman, 2012). Openly challenging established processes or highlighting problems in the workplace can damage relationships, create tension, and irritate colleagues and managers (Detert & Edmondson, 2011; Kish-Gephart et al., 2009). Thus, while voice is often associated with positive outcomes, it carries a distinct risk—making it a more complex and potentially divisive aspect of citizenship performance.

1.2.2. Counterproductive performance

Opposite to citizenship performance, counterproductive performance – also known as counterproductive work behaviour (CWB) – is an umbrella term that includes a broad range of behaviours that violate organisational and social norms and can potentially harm the

organisations and their stakeholders (Spector & Fox, 2005). These behaviours include actions such as theft, sabotage, being rude with colleagues and gossiping (Robinson & Bennett, 1995; Spector et al., 2006). CWBs violate the legitimate organisational interests with clear financial and psychosocial implications (Carpenter et al., 2021). CWBs can have organisational consequences such as diminished productivity, strained employee relationships, and a compromised company reputation, all of which contribute to a less supportive and economically viable work environment (Carpenter et al., 2021).

1.3. The current study: aim and hypotheses

The purpose of this study was to systematically review and meta-analytically summarise the evidence regarding the relationship between: (a) SE and citizenship performance; (b) SE and CWBs. In line with the literature suggesting the role of SE in promoting adjustment and performance (Bandura, 1997, 2023), we hypothesised the following:

H1. SE is positively related to citizenship performance, that is the higher SE the higher the engagement with citizenship behaviours (e.g., OCBs, voice).

H2. SE is negatively related to counterproductive performance, that is the higher SE the lower the engagement with CWBs.

In testing these two hypotheses, we have considered whether these relationships vary depending on how SE has been operationalised (domain-specific vs. general).

Finally, we aim to explore the moderating role of SE in the association between individual/organisational characteristics, and citizenship/counterproductive performance. Aligned with the literature (Bandura, 1997; Fida et al., 2015; Xanthopoulou et al., 2007), we hypothesised that:

H3. SE moderates the association between individual/organisational characteristics and citizenship performance. At higher levels of SE, the negative association between detrimental characteristics (e.g., neuroticism, negative emotions, stressors, and job demands) and citizenship performance will be weaker (H3a). Conversely, at higher levels of SE, the positive association between favourable characteristics (e.g., moral identity, well-being, job resources) and citizenship performance will be stronger (H3b).

H4. SE moderates the association between individual/organisational characteristics and counterproductive performance. At higher levels of SE, the positive association between detrimental characteristics and CWBs will be weaker (H4a). Conversely, at higher levels of SE, the negative association between favourable characteristics and CWBs will be stronger (H4b).

2. Methods

The protocol followed the Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols (PRISMA-P 2015) (Shamseer et al., 2015).

2.1. Literature review

The literature search was initially conducted in November 2020 and updated in June 2022. All the studies listed in PsychInfo and Web of Science with the identified search terms (see Appendix 1) in their title, keywords, abstract, or text were included. The inclusion and exclusion criteria were: (a) SE measured as antecedent or as a moderator; (b) the study included a measure of nontask performance (e.g., citizenship and counterproductive performance) as an outcome; (c) empirical studies with samples of employees; (d) studies published in a peer-reviewed academic journal in English, Italian, Spanish, French, or German.

We first conducted the screening of the titles, followed by the

screening of the abstracts and full-texts. Four independent researchers screened titles and abstracts (each entry was assessed by two researchers). In case of inconsistency, researchers discussed their views and made a common decision. For full-text screening, two independent researchers assessed each record. Before each screening stage, a pilot phase was conducted to ensure consistency in the process. Researchers assessed the same pool of entries and decisions were discussed in plenary. Overall, as evidenced by the Cohen's Kappa there was a good consistency among the assessors during the screening stages (Title screening: $K = 0.93$; Abstract screening: $K = 0.66$).

2.2. Data extraction and coding

The data extraction sheet included the characteristics of the sample and measures, such as the reliability of each scale, methods used, and the main results related to the relationship between SE and citizenship/counterproductive performance. We evaluated the quality of each study using the National Institutes of Health Study Quality Assessment Tools (NHLBI, 2013).

2.3. Meta-analytical strategy

We extracted correlation coefficients between SE and citizenship performance/CWBs. For papers with multiple independent studies, correlations were extracted from each study. For longitudinal studies, we extracted the cross-sectional correlations with the largest sample size; otherwise, correlations between time points were extracted. For diary studies, we extracted between-person correlations, and for intervention studies, only coefficients from the control group were extracted (to avoid any external manipulation).

Using Schmidt and Hunter's (2015) meta-analytic approach and the *psychmeta* package in R (Dahlke & Wiernik, 2019), we computed mean observed correlation (\bar{r}), mean corrected correlations (ρ), and 95 % confidence intervals (CIs) around the mean corrected correlations. When multiple dependent correlations came from the same study, we computed the composite correlations using Schmidt and Hunter's (2015) formula. Observed correlations were corrected for sampling and measurement errors, using reported Cronbach's alphas for predictor and criterion unreliability. For composite measures, reliability was calculated using Mosier's (1943) formula, and single-item measures were set at 0.70, in line with prior meta-analyses (e.g., Hülshager & Schewe, 2011). Missing reliability coefficients were imputed from the average reliability found in other studies (Schmidt & Hunter, 2015).

To assess homogeneity, we used the '75 % criterion' to partition variability into components due to artifacts and between-study differences (Schmidt & Hunter, 2015). We also inspected the 80 % credibility interval (CR). If it was wide or contained zero, potential moderators were tested (Hunter et al., 1986). Subgroup analysis (categorical moderators) and random effects weighted least squares regression (continuous moderators) were used to test for moderators. Moderation was inferred when subgroup CIs did not overlap (Hwang & Schmidt, 2011), and we evaluated differences using 95%CI around the corrected mean correlation (Zou, 2007). For continuous moderators, regression coefficients (β) and R^2 were used to describe the effect size and explained heterogeneity.

Finally, publication bias was tested using the *R metafor* package (Viechtbauer, 2010) with Egger's Test of the Intercept (Egger et al., 1997) and the Trim-and-Fill method (Duval & Tweedie, 2000). No significant publication bias was found (see supplemental material).

3. Results

3.1. Eligible articles and study characteristics

A total of 11,877 records was identified through the database searching (see Fig. 1). The screening process led to a total of 176 eligible

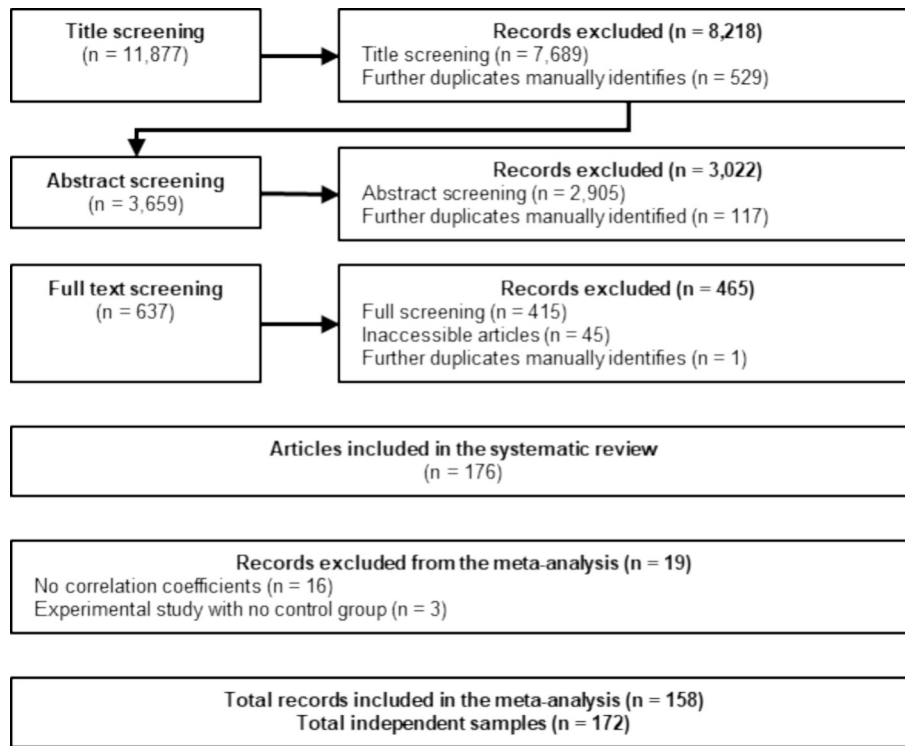


Fig. 1. PRISMA chart showing inclusion of studies in systematic review and meta-analysis.

papers, corresponding to 194 independent studies (see Fig. 1). For the meta-analytical syntheses, we further excluded 18 articles (16 did not include correlation coefficients and 2 were experimental with no control group), for a total of 158 papers (172 independent studies). All the main extracted data are reported in Appendix 2.

The articles included in the review were published between 1995 and 2022, with the majority (83 %) published in the last 10 years. Most of the studies were classified as being of medium (44 %) and high quality (31 %). Most of the studies were conducted in Asia (59 %) or in Europe (19 %) or North America (14 %). All studies were quantitative, except one using a mixed-method design. Most studies were cross-sectional (72 %), only 22 % longitudinal and 6 % experimental. Finally, in most of the studies males were the majority (56 %).

The summary of the evidence is shown in Fig. 2.

3.2. Measures

3.2.1. Self-efficacy

SE was measured by a wide range of scales. Most studies (147 out of 194; 76 %) investigated specific SE dimensions, such as work SE (24 %), role-breadth SE (14 %), voice SE (10 %) and knowledge SE (9 %). Work SE was mainly measured through the scales by Spreitzer (1995) (36 %) and Riggs et al. (1994) (17 %). Role-breadth SE was mainly measured through the scales of Parker (Parker, 1998; Parker et al., 2006) (95 %). Voice SE was generally measured through the Janssen and Gao's scale (2015) (27 %). Finally, knowledge SE was mainly measured through an adapted version of the Spreitzer's scale (1995) (31 %). The remaining studies focused on SE linked to non-discretionary behaviours, such as task SE, which was especially measured through the Psychological Capital Scale by Luthans et al. (2007) (5 %). Forty-eight out of 194 studies (25 %) investigated general SE. The most used scales were the New General SE scale by Chen et al. (2001) (43 %), and the General SE scale by Schwarzer and Jerusalem (1995), or its adaptations (31 %).

3.2.2. Citizenship performance

Citizenship performance was investigated in 162 studies (83 %)

across a wide range of behaviours, particularly OCB type of behaviours (79 %) and voice (21 %). There was no prevalent scale to measure the former. Common scales included those by Lee and Allen (2002) (12 %) and Williams and Anderson (1991) (10 %). Voice was measured mainly using the scales by Liang et al. (2012) (38 %) and Van Dyne and LePine (1998) (35 %).

3.2.3. Counterproductive performance

CWBs were investigated in 37 studies (23 %). These were mainly operationalised in terms of misconduct and workplace deviance. The most used scales were the Interpersonal and Organisational Deviance scale by Bennett and Robinson (2000) (30 %) and the scale by Spector et al. (2006) (10 %).

3.3. Self-efficacy as antecedent of citizenship performance

Results of the meta-analysis supported our H1 (see Table 1). Based on $k = 145$ independent samples and $N = 49,464$ employees, we found a significant positive correlation between SE and citizenship performance ($\bar{\rho} = 0.45$; 95%CI: [0.42, 0.48]). Self-efficacious employees are more prone to engage in citizenship and prosocial behaviours. Given the potential differences between the two SE theoretical approaches (general vs specific SE), we examined whether these conceptualisations moderated the relationship between SE and citizenship performance. The results indicated that the moderation was not significant: both general SE and specific SE were similarly associated with citizenship performance ($\Delta\rho = -0.03$ [95%CI = -0.12, 0.07]).

By looking at the specific studies, the positive association between SE and citizenship performance is evidenced in relation to a broad range of positive behaviours directed toward both the organisation as a whole and/or other individuals. For instance, self-efficacious employees are more likely to exhibit proactive behaviours (e.g., Feng et al., 2022; Xu et al., 2018), to make improvements to work methodologies, policies, and procedures (e.g., Kao, 2017; Luthfi et al., 2021) and to share knowledge with colleagues (e.g., Rahman et al., 2018; Xia et al., 2019). They are also more likely to demonstrate higher service-oriented OCB (e.

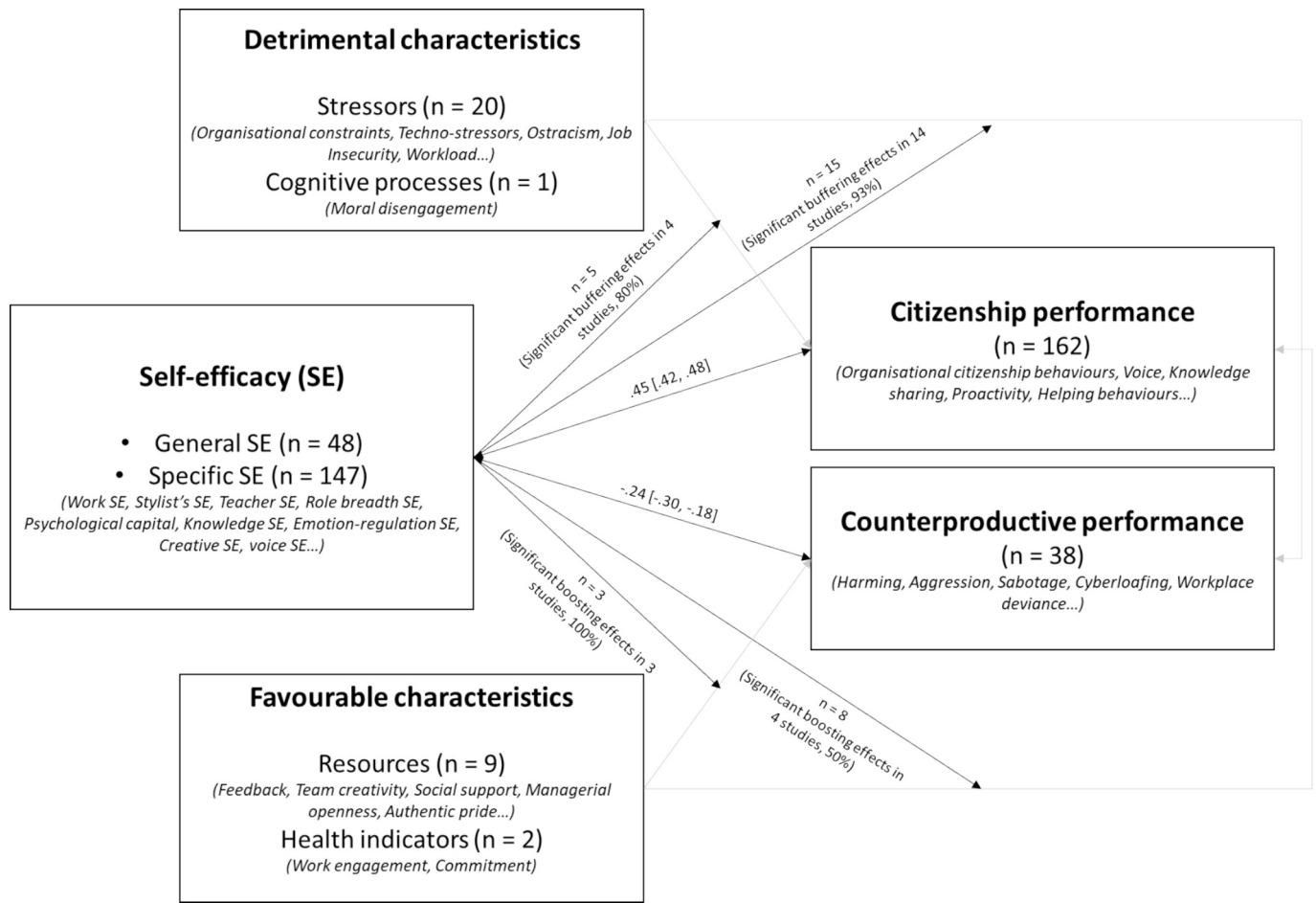


Fig. 2. The role of self-efficacy on nontask performance: Meta-analytical summary of evidence

Note: *n* = number of independent studies including that specific variable or exploring that specific path; paths in grey have not been investigated; for the paths representing the associations between SE and the two outcomes, mean corrected correlations (and their 95 % CIs) have been reported.

Table 1 Relationships of SE with both citizenship and counterproductive performance.

	<i>k</i>	<i>N</i>	\bar{r}	<i>SD_r</i>	<i>SD_{res}</i>	$\bar{\rho}$	<i>SD_{r_c}</i>	<i>SD_ρ</i>	95 % CI	80 % CR	%Var
SE → Citizenship performance	145	49,464	0.38	0.16	0.16	0.45	0.19	0.19	[0.42, 0.48]	[0.21, 0.69]	7.9 %
General SE→ Citizenship performance	32	9875	0.37	0.21	0.21	0.43	0.25	0.24	[0.34, 0.52]	[0.12, 0.75]	$\Delta\rho$ (95 % CI)
Specific SE→ Citizenship performance	114	39,990	0.39	0.15	0.14	0.46	0.18	0.17	[0.42, 0.49]	[0.24, 0.67]	0.07
SE → OCB type of behaviours	112	38,640	0.39	0.16	0.15	0.46	0.19	0.19	[0.43, 0.50]	[0.22, 0.70]	0.04 (-0.03, 0.12)
SE → Voice	34	11,032	0.36	0.17	0.16	0.42	0.19	0.18	[0.35, 0.48]	[0.18, 0.66]	
SE → Counterproductive performance	36	12,498	-0.21	0.15	0.14	-0.24	0.17	0.16	[-0.30, -0.18]	[-0.45, -0.03]	12.3 %
General SE→ Counterproductive performance	9	3181	-0.17	0.15	0.14	-0.22	0.16	0.14	[-0.34, -0.10]	[-0.42, -0.01]	$\Delta\rho$ (95 % CI)
Specific SE→ Counterproductive performance	27	9317	-0.22	0.15	0.14	-0.25	0.18	0.17	[-0.32, -0.18]	[-0.47, -0.03]	0.03 (-0.11, 0.17)

Note: SE = self-efficacy; *k* = number of samples contributing to meta-analysis; *N* = total sample size; \bar{r} = mean observed correlation; *SD_r* = observed standard deviation of *r*; *SD_{res}* = residual standard deviation of *r*; $\bar{\rho}$ = mean true-score correlation; *SD_{r_c}* = observed standard deviation of corrected correlations (*r_c*); *SD_ρ* = residual standard deviation of ρ ; CI = confidence interval around $\bar{\rho}$; CR = credibility interval around $\bar{\rho}$; %Var = percentage of variance explained by artifacts. Correlations corrected individually. Coefficients in bold are significant.

g., Chen et al., 2015; Du et al., 2015; Gashi Tresi & Mihelic, 2020), and helping behaviours to support colleagues' mental health (e.g., Mazzer & Rickwood, 2015) and to defend colleagues when mistreated or bullied (Hellemans et al., 2017). Finally, self-efficacious employees are more willing to voice their opinions and/or moral concerns (e.g., Duan et al., 2014; Lebel & Patil, 2018). Some studies also suggested that this

association is stronger in relation to promotive voice than prohibitive voice (see Dedahanov et al., 2019; Svendsen et al., 2016). Given the differences between OCB type of behaviour and voice, we conducted a subgroup analysis to whether there were any differences in the relationship between SE and these two outcomes. Results showed that SE was similarly associated with both variables and in fact there was not a

significant difference between the meta-analytical correlations ($\Delta\rho = 0.04$ [95%CI = $-0.03, 0.12$]).

It is also worth noticing that four studies, included in this systematic review, found an unexpected negative relationship between SE and citizenship performance. For example, in two studies (D'Amato & Zijlstra, 2008; Fan et al., 2013) the regression coefficients between SE and OCB were negative. However, a close look of the zero-order correlations between the two variables showed that these were significant but positive. Hence, the negative regression coefficients could have been the results of a spurious relationship, and they should be interpreted with caution. Other two studies (see Khan & Khan, 2022; Xue et al., 2020) also showed a negative association between SE and voice. The authors suggested that these results could be attributed to the specific national context (i.e., China). Being China a collectivistic country, they argued that employees may be less inclined to voice concerns which can potentially threaten relationships with colleagues (see Khan & Khan, 2022).

An inspection of CRs and the percentage of variance explained by artifacts (< 70 %) revealed that all the meta-analytical correlations were highly heterogenous (Table 1). Hence, we conducted a series of subgroup and meta-regression analyses (see Table 2).

In light of the possible role of the cultural context in the relationship between SE and citizenship performance suggested by some authors (e.g., Khan & Khan, 2022; Xue et al., 2020), we explored the moderation effect of geographical location of the sample (Asian studies vs others) on the relationship between SE and citizenship performance. Results showed that there were no differences between the meta-analytical correlations ($\Delta\rho = 0.06$ [95%CI = $-0.01, 0.12$]). We also tested whether some study methodological variables - specifically type of correlation (concurrent or prospective), gender (percentage of males per study), mean age, and study quality - moderated the association between SE and citizenship performance. Results revealed no significant differences (Type of correlations: $\Delta\rho = 0.06$ [95%CI = $-0.01, 0.12$]; Gender: $k = 139, \beta = -0.00, R^2 = 0\%$; Age: $k = 88, \beta = -0.00, R^2 = 0\%$; Study quality: $k = 145, \beta = -0.04, R^2 = 1.3\%$).

3.4. SE as antecedent of counterproductive performance

Results of the meta-analysis supported our H2 (see Table 1). Based on

Table 2
Subgroup analyses for the association of SE with both citizenship and counterproductive performance.

		<i>k</i>	<i>N</i>	\bar{r}	<i>SD_r</i>	<i>SD_{res}</i>	$\bar{\rho}$	<i>SD_{r_c}</i>	<i>SD_ρ</i>	95 % CI	80 % CR	$\Delta\rho$ (95 % CI)
Cultural context (Asia vs Rest of the World)												
Asia	SE → Citizenship performance	86	27,907	0.41	0.16	0.16	0.48	0.19	0.18	[0.43, 0.52]	[0.24, 0.71]	0.06 (−0.01, 0.12)
Rest of the world	SE → Citizenship performance	59	21,557	0.35	0.16	0.16	0.42	0.19	0.18	[0.37, 0.47]	[0.18, 0.66]	
Type of correlation (Concurrent vs Prospective)												
Concurrent	SE → Citizenship performance	123	42,468	0.39	0.16	0.16	0.46	0.20	0.19	[0.42, 0.50]	[0.22, 0.70]	0.06 (−0.03, 0.15)
Prospective	SE → Citizenship performance	22	6996	0.34	0.16	0.15	0.40	0.18	0.17	[0.32, 0.48]	[0.18, 0.62]	
Cultural context (Asia vs Rest of the World)												
Asia	SE → Counterproductive performance	17	5291	−0.21	0.14	0.13	−0.25	0.16	0.15	[−0.33, −0.16]	[−0.45, −0.05]	−0.01 (−0.13, 0.11)
Rest of the world	SE → Counterproductive performance	19	7207	−0.21	0.16	0.15	−0.24	0.18	0.17	[−0.32, −0.15]	[−0.46, −0.01]	
Type of correlation (Concurrent vs Prospective)												
Concurrent	SE → Counterproductive performance	31	10,665	−0.21	0.15	0.14	−0.25	0.17	0.16	[−0.31, −0.18]	[−0.45, −0.04]	−0.03 (−0.29, 0.22)
Prospective	SE → Counterproductive performance	5	1833	−0.18	0.16	0.15	−0.22	0.20	0.19	[−0.46, 0.03]	[−0.50, 0.07]	

Note: SE = self-efficacy; *k* = number of samples contributing to meta-analysis; *N* = total sample size; \bar{r} = mean observed correlation; *SD_r* = observed standard deviation of *r*; *SD_{res}* = residual standard deviation of *r*; $\bar{\rho}$ = mean true-score correlation; *SD_{r_c}* = observed standard deviation of corrected correlations (*r_c*); *SD_ρ* = residual standard deviation of ρ ; CI = confidence interval around $\bar{\rho}$; CR = credibility interval around $\bar{\rho}$. Correlations corrected individually. Coefficients in bold are significant.

k = 36 independent samples and *N* = 12,498 employees, we found a significant correlation between SE and counterproductive performance ($\bar{\rho} = -0.24$; 95%CI: $[-0.30, -0.18]$). Self-efficacious employees are less prone to engage in CWBs. Given the potential differences between the two SE theoretical approaches (general vs specific SE), we examined whether these conceptualisations moderated the relationship between SE and counterproductive performance. The results indicated that the moderation was not significant: both general SE and specific SE were similarly associated with counterproductive performance ($\Delta\rho = -0.01$ [95%CI = $-0.13, 0.11$]).

By looking at the specific studies, the negative association between SE and CWBs is evidenced in relation to a broad range of behaviours. For example, high levels of SE are associated with a lower tendency to engage in interpersonal and workplace deviance (e.g., Brender-Ilan & Sheaffer, 2021; Gong & Choi, 2016; Wang et al., 2011), negative actions toward supervisors (e.g., Jawahar et al., 2018) and hide knowledge (e.g., Han et al., 2021). Additionally, higher SE was associated with lower levels of physical and emotional violence toward students (Khoury-Kassabri, 2012).

It is also worth noticing that three studies (Galperin, 2012; Iqbal et al., 2021; Zheng et al., 2021) found a non-significant association between employee SE and CWBs (e.g., coworker social undermining and deviant behaviours). In addition, in one study (Koay et al., 2022) there was a positive association of SE with knowledge hiding, but in this instance, SE was operationalised as employee's perceived capabilities in hiding rather than in sharing knowledge.

An inspection of CRs and the percentage of variance explained by artifacts (< 70 %) revealed that all meta-analytical correlations were highly heterogenous (Table 1); hence, as for the case of citizenship performance, we conducted a series of subgroup and meta-regression analyses (Table 2). Results showed that neither the geographical context (Asia or Rest of the World, $\Delta\rho = -0.01$ ($-0.13, 0.11$)) nor methodological 'artifacts' moderated this relationship (Type of correlations: $\Delta\rho = -0.03$ ($-0.29, 0.22$); Gender: $k = 34, \beta = -0.00, R^2 = 0\%$; Age: $k = 22, \beta = -0.01, R^2 = 0\%$; Study quality: $k = 36, \beta = -0.03, R^2 = 0\%$).

3.5. SE as moderator of the association between detrimental/favourable factors and citizenship performance: qualitative synthesis

Sixteen studies (8 %) investigated the moderating role of SE on the relationship between job-related factors and citizenship performance (see Fig. 2). Of these, five studies (Fiset & Bhave, 2021; Hwang et al., 2021; Reizer & Hetsroni, 2015; Yao et al., 2021) examined the buffering effect of SE on the negative impact of detrimental factors (e.g., linguistic ostracism and job insecurity) on citizenship performance, with four studies supporting this effect. Contrary to our hypotheses, Reizer and Hetsroni (2015) found that the negative effect of caregiver deactivation on OCBs was stronger for individuals high in SE, which the authors attributed to a potential specification error (i.e., not accounting for other personal characteristics).

Eight studies (4 %) examined the role of SE in enhancing the positive effect of favourable factors (e.g., upward feedback, managerial openness, duty orientation) on citizenship performance. Four studies aligned with our hypothesis, showing that SE strengthens relationships, such as between supervisor responsiveness or managerial openness and voice behaviour (Janssen & Gao, 2015; Prince & Rao, 2020), and between upward feedback and helping behaviours (Heslin & Latham, 2004). However, two studies reported findings inconsistent with our hypothesis. Deng and Guan (2017) found that the positive effect of perceived creative efficacy on OCBs was stronger for individuals with low SE, which the authors attributed to severe multicollinearity issues in their regression model. Similarly, Xu et al. (2018) found that the positive effect of work engagement on taking charge was stronger among individuals with low role-breadth SE. This result, as the authors suggested, may be due to the high correlation between the two predictors ($r = 0.69$), with work engagement's positive affective energy potentially compensating for low SE by fostering cognitive flexibility and building enduring individual capabilities.

3.6. SE as moderator of the association between detrimental/favourable predictors and counterproductive performance: qualitative synthesis

Sixteen studies (8 %) investigated the moderating role of SE on the relation between job-related factors on CWBs (Fig. 2). The findings provide strong evidence for SE's buffering effect on the impact of detrimental factors on CWBs. For example, SE mitigates the effect of linguistic ostracism on interpersonal deviant behaviour (Fiset & Bhave, 2021), moral disengagement on CWBs (Paciello et al., 2023), and techno-stressors on CWBs (Kim & Lee, 2021). Additionally, SE reduces the association between hubristic pride and knowledge hiding (Han et al., 2021) and buffers the association between underdog expectations and cheating behaviours, both directly and indirectly through need fulfilment (Loi et al., 2021).

Regarding SE's role in enhancing the effect that favourable job-related factors have in reducing CWBs, although only three papers (1 %) investigated this, the evidence is compelling. All studies supported our hypotheses, showing that SE amplifies the impact of resources such as social support, empowering supervision, authentic pride in reducing various forms of CWBs, including interpersonal and organisational deviant behaviours, service sabotage, knowledge hiding (Han et al., 2021; Tuzun et al., 2017; Zhou et al., 2018).

4. Discussion

The results of our meta-analysis and systematic review highlight the significance of SE in influencing nontask performance, such as citizenship and counterproductive performance (Borman & Motowidlo, 1997; Campbell, 1990; Campbell & Wiernik, 2015; Lievens et al., 2008). Our findings are consistent with previous research that emphasizes SE's impact on task performance (Alessandri et al., 2025; Haddad & Taleb, 2016; Judge et al., 2007; Sitzmann & Yeo, 2013; Stajkovic & Luthans, 1997). However, this study extends the scope by exploring its role in

fostering beneficial behaviours (e.g., OCBs, extra-role behaviours, and voice) while inhibiting detrimental ones (i.e., CWBs).

SE emerged as a critical driver of constructive behaviours like OCBs, voice and helping behaviours. Highly self-efficacious individuals are more likely to go beyond prescribed tasks, contributing to personal, collective, and organisational growth. They frequently engage in behaviours such as voice (Taiyi Yan et al., 2022; Zhang & Inness, 2019), proactive customer service (Zhang et al., 2021) and helping behaviours (Heslin & Latham, 2004). These findings align with research in the general population (Caprara et al., 2012), suggesting that self-efficacious individuals are motivated to foster both personal and social development. However, the relationship between SE and citizenship performance is nuanced. As noted by Griffin et al. (2000), situational constraints can moderate the expression of contextual performance, especially in challenging situations. High-SE individuals may require contextual supports to engage in behaviours with greater personal risk such as prohibitive voice. In addition, as highlighted by Beaty et al. (2001) stronger situational cues that clarify expectations can reduce the reliance on individual differences like SE, whereas weaker situations allow SE to play a more prominent role in guiding behaviour. Thus, it would be important to further examine the role of job design and organisational factors that could moderate the relationship between SE and nontask performance.

The protective effect of SE against counterproductive performance is particularly noteworthy. Self-efficacious individuals, confident in their self-regulatory abilities, are less likely to engage in harmful or deviant behaviours (Bandura et al., 2001). However, the weaker SE-CWBs link relative to citizenship performance found in this meta-analysis suggests the moderating influence of external stressors and situational dynamics. This reinforces the stressor-emotion model of CWB (Fox & Spector, 2006), where SE functions as a resource that buffers against the detrimental impact of adverse conditions. Interventions targeting CWBs should not only enhance SE but also address situational factors, such as reducing stressors and promoting a supportive workplace culture.

Our findings contribute to the literature on workplace performance (Judge et al., 2007; Sitzmann & Yeo, 2013; Stajkovic & Luthans, 1997) by emphasising the importance of SE in nontask performance dimensions that have been relatively overlooked. Both citizenship and counterproductive performance have a clear ethical implication, and our study highlights how self-efficacious individuals better regulate their behaviours, align with high personal moral standards, and maintain motivation under unfavourable conditions (Bandura, 1997; Fida et al., 2015; Paciello et al., 2023). Individuals with high SE are capable of initiating *in-action* regulatory processes (Schön, 1991) and implementing self-corrective measures to align their behaviour with both personal and social standards (Paciello et al., 2023). They possess the capacity to observe their own actions and behaviours, actively participate in self-evaluative processes, enabling self-assessment and anticipation of potential outcomes of their actions, whether positive or negative.

Interestingly, the association between SE and both citizenship and counterproductive performance remained significant regardless of whether SE was conceptualised as general or specific. This supports recent literature suggesting that these theoretical perspectives should be integrated (Barbaranelli et al., 2018; Chen et al., 2001). This does not imply that the two approaches are interchangeable, and consistency between the theoretical framework and the operationalisation of SE remains crucial. Further, it remains unexplored how and the extent to which the two theoretical approaches can inform each other. None of the studies included in our meta-analysis concurrently measured both general and specific SE, preventing us from assessing their unique contributions. Future research should aim to disentangle these effects by including both constructs within the same study design.

As pertain to the moderating role of SE, the literature review identified a limited number of studies, particularly those testing the role of SE in strengthening the effect of favourable working conditions in

reducing the likelihood of engaging in CWBs. Hence, results need to be considered with caution. Notwithstanding this, the results of our systematic review supported the hypotheses about the protective role of SE in buffering the effect detrimental working conditions have in increasing the likelihood of behaving counterproductively.

Results are less univocal when considering the moderating role of SE in the relationship between detrimental conditions and citizenship performance. It is plausible to suggest that SE represents a resource helping individuals to sustain their engagement above and beyond their prescribed tasks, looking for positive solutions and support others even under suboptimal conditions. However, when considering prohibitive voice (a positive discretionary behaviour potentially associated to higher cost and risk for the individual), it seems that the contribution of SE is more limited, possibly because understanding the engagement in this type of behaviour might require the concurrent examination of further dimensions (e.g., both individual factors, such as moral courage, and organisational factors, such as support). Similarly, even when considering the role of SE in boosting the relationship between favourable conditions and citizenship performance, the number of studies is limited, and findings are less univocally supportive of our hypothesis. It is plausible to assume that in this case SE is a resource facilitating the flourishing of positive behavioural responses, but further evidence is needed. These results suggest that individual differences in SE might make a difference in a work context in which stressful and challenging situations needed to be dealt with. Individual differences in SE are associated with different levels of resilience, possibly explaining the moderating role of SE.

5. Limitations and future directions

The present study is not exempt from some limitations that should be acknowledged when drawing conclusions from our findings. Given the high heterogeneity of effect sizes, it is plausible that other unknown variables may play an influential role in the relationship between SE and citizenship/counterproductive performance. For instance, the impact of the cultural context has been overlooked. In a limited number of studies (e.g., Khan & Khan, 2022), authors have speculatively explained counterintuitive or unanticipated results as a potential consequence of cultural differences. In our meta-analyses, when examining the moderating role of the geographical context (Asia vs Rest of the world) in the relationship of SE with citizenship and counterproductive performance we did not find any significant result. This suggests that cultural specificity should be better defined and operationalised, to allow researchers to understand whether and to what extent values and culture have an impact in shaping the relationship between SE and organisational performance.

Most of the primary studies relied on self-reported measures of the constructs, which might have increased common method bias and social desirability (Podsakoff et al., 2003). Future research could benefit from integrating a broader range of assessment approach such as other-informant ratings (e.g., peer and manager), behavioural observation, and objective measures. In addition, our study showed a paucity of experimental and longitudinal studies. Hence, our results allowed the estimation of the association, but not a full understanding of the causal relationship between SE and either citizenship or counterproductive performance. Future research should address this gap and explore, for instance, the possible reciprocal effect between SE and behaviours in line with Bandura's triadic reciprocal determinism (Bandura, 1997).

Although we identified many primary studies exploring the association between SE and the citizenship and counterproductive performance, we were unable to quantify the moderating role of SE due to the limited number of studies. Thus, additional investigations are needed to corroborate some of our findings and to allow for more robust conclusions.

Finally, an intrinsic limitation of systematic reviews and meta-analyses is that not all existing eligible studies might have been

included. In our study, we specifically focused on two of the most widely recognised databases in our field to ensure a robust foundation for our analysis. However, despite the large number of studies identified, relying on only two databases may have resulted in the omission of additional studies. Hence, even though our tests for publication bias were not significant (see Supplemental Material), we cannot rule out the possibility that our results are affected by the 'file drawer' problem (Rosenthal, 1979), which means that studies with significant effects are more likely to be published than studies with non-significant or unexpected effects. For future research, it would be useful to enhance data collection by incorporating unpublished articles from research databases (e.g., ProQuest) and other sources (e.g., contacting researchers in the field for their unpublished data, or posting requests on relevant listservs or websites).

6. Conclusion

This research contributes to the literature underlining the importance of SE in organisational setting, above and beyond its positive impact on task performance. By examining the relationship with nontask performance we provided evidence of its broader pivotal role in promoting a positive organisational functioning. SE represents a key personal dimension promoting individual and organisational growth, preventing damaging behaviour, and supporting individuals when dealing with challenging and demanding contextual conditions.

CRedit authorship contribution statement

Roberta Fida: Writing – review & editing, Writing – original draft, Supervision, Resources, Project administration, Methodology, Investigation, Funding acquisition, Conceptualization. **Ivan Marzocchi:** Writing – review & editing, Formal analysis, Data curation. **Mamoona Arshad:** Writing – review & editing, Methodology, Investigation, Data curation. **Marinella Paciello:** Writing – review & editing, Writing – original draft, Methodology, Conceptualization. **Claudio Barbaranelli:** Writing – review & editing. **Carlo Tramontano:** Writing – review & editing, Writing – original draft, Methodology, Conceptualization.

Declaration of competing interest

None.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.paid.2025.113179>.

Data availability

Data will be made available on request.

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