The Influence of Shared Leadership on Psychological Safety and Performance within Teams: A Mediated Model

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Abstract

The present paper explores how the distribution of leadership tasks between managers and their employees can influence organizational performance, with specific focus on whether experiencing working dynamics as psychologically safe can act as a mediating role in this relationship. Based on the novel approach of obtaining data from leader-employee dyads, this cross-sectional study tried to extend the literature on performance levels within Dutch companies. Integrating insights from the social exchange theory, we predicted that shared leadership increases levels of mutual trust, thereby fostering psychological safety perceptions of employees, which is hypothesized to enhance performance levels. A regression and mediation analysis demonstrated an insignificant association between the direct effect of shared leadership on performance. However, positive associations between shared leadership and the mediator variable have been found. Psychological safety predicted performance gains, explaining why the findings revealed an indirect mediation effect that is only present after including psychological safety in the model. These results suggest the need to strategically integrate and cultivate psychological safety when creating frameworks for high-performing teams with joint leadership structures. Future replications that also consider the role of other but similar mediators and use a more contextually flexible longitudinal study design are recommended to broaden our knowledge regarding leadership strategies.

Keywords: Shared leadership, psychological safety, performance, dyadic relationships, social exchange theory

The Influence of Shared Leadership on Psychological Safety and Performance within Teams: A Mediated Model

In modern working environments, consisting of a rapidly evolving market (Arora et al., 2023), the pressure to maximize the productivity within teams to outperform competitors has become more profound (Hoch, 2013), demonstrating the need for companies to reshape strategies aiding in maintaining their commanding lead through excellent team performance (Carson et al., 2007). One approach for the promotion of such consistent organizational success is to elevate the quality of leader-employee dyadic relationships within teams (Hoch, 2013). The traditional hierarchical leadership style advocates the concept of centralized, manager roles. However, a more adaptive approach in that case are shared leadership (SL) practices, involving the distribution of responsibilities among team members (Van der Vegt & Bunderson, 2005). In comparison to the hierarchical leadership, D'Innocenzo et al. (2016) reveal a positive relationship between SL and performance levels. This paper will narrow down the focus from a team SL perspective to the leader-follower dyad and the SL between the two. Widely shared tasks allow for more diverse expertise within teams, enhancing levels of collaboration and motivation to become more successful at work (Kozlowski & Bell, 2003). This subsequently provides organizations with the opportunity to reach higher sustained team performances (Hoch, 2013).

Following past research, leadership practices seem to be crucially impacting working environments and the team's capability to perform (e.g., Kozlowski et al., 1996; Sinclair, 1992; Zaccaro et al., 2001). Most previous research explored one specific type of leadership, namely the vertical leadership style. This top-down approach concentrates all the power at the upper levels of an organization (Morgeson et al. 2010), thought to be effective in especially large working dynamics, where structure and consistent distribution of roles or

responsibilities are valued (Kozlowski & Bell et al., 2003). However, it has been argued to rely on different strategies to enhance performance levels more drastically, as it can be challenging to fully satisfy all responsibilities simultaneously as a single external leader (Carson et al., 2007; Day et al., 2004). The contemporary concept of SL – a practice instituted by Gibbs (1954) – allows for highly collective teamwork, welcoming the idea of representing multiple employees' ideas within work settings by distributing tasks and shared resources instead (Hoch, 2013). According to scientific research, SL has often been positively associated with increased team performance, enhancing the possibility for superior performance (e.g., Ensley et al. 2006; Hmieleski et al. 2011; Pearce et al. 2004). Nevertheless, literature stresses that additional third variables, such as characteristics in reference to levels of task competence of followers (Carson et al., 2007) but also factors regarding the degree of leadership influence (Taggar et al., 1999) should be considered given that they guide the SL-performance interaction. These additional determinants could give more precise perceptions about the relation, especially since they point to the possibility of gaps in empirical investigation (Carson et al., 2007). Furthermore, Hoch (2013) exhibited that future academic disclosure must discuss contributing factors of this practice to gain clarity of its onset, especially because traditional leadership strategies are well-researched already. Although organizational dyadic studies have recently become a central topic of inquiry when explaining how SL can be impacted (Van der Vegt & Bunderson, 2005), individual aspects such as their motivation or organizational attributes like team interaction patterns, hold relevance (Carson et al., 2007). Therefore, the success of integrating SL practices in teams, partially explained by performance levels, is dependent on these mechanisms and must be scrutinized in future research.

Thus, the purpose of this paper is to gain deeper understanding of the SL-performance linkage. By introducing psychological safety (PS), which indirectly mediates and explains this

causal relationship, conceptual clarity can increase. Meta-analyses like the one by Cheng et al. (2022) advocate this approach through designating the importance of contemplating mediating factors to comprehend the named connection. Giving employees the chance to freely voice ideas and allowing followers to point out mistakes without fear of judgment or rejection (Edmondson, 1999), is a key aspect of fostering performance abilities in working dynamics (Garvin et al., 2008). Accordingly, PS is crucial for knowledge-sharing, trustworthy environments where honest communication (Wang & Jin, 2023) and collaboration are encouraged (Edmondson, 1999). Constructive dialogues are promoting team performance due to increased job satisfaction (Wu et al., 2020). Given that a complex leader-employee framework is recognizable (Wang & Jin, 2023), this paper is providing a dual-lens viewpoint, using a data questionnaire concerning the dyadic exchange of Dutch employees and their leaders, specifically. This new approach in research provides nuanced insights into what contributes to the progress of advanced leadership strategies.

Hypotheses and Theory Development

Shared Leadership and Performance

Literature suggests, there has been a debate about the most successful leadership style within organizations – vertical leaderships, prioritizing hierarchical structures with one manager (Ensley et al. 2003; Morgeson et al. 2010) and shared leadership, putting emphasis on collectiveness and joint decision-making processes (Hoch, 2013). As conventional leaderships are well-researched, this study focuses on the engagement of leaders in SL practices, explaining how members distribute responsibilities together instead of investigations about interactions of members (Serban & Roberts, 2016). Favoring this approach, Day and colleagues (2004) argue that it is not beneficial to manage all work-related tasks alone and that better outcomes are achieved when considerable amounts of collective identification are present. This builds the foundation for diversity and creativity at the

workplace (Small & Rentsch, 2010; Van der Vegt & Bunderson, 2005). Leaders with intrinsic motivation to manage their work are more likely to allow for SL environments to evolve (Williams & Anderson, 1991). Whether these practices will be efficient for the team not only depends on the complexity of obligations but also on whether the introduction and continuous refinement of this leadership style is worth the time and effort (Carson et al., 2007).

Performance is a multifaceted term (Wei & Yazdanifard, 2014). For the sake of conciseness, this paper we will refer to it as leader-evaluated in-role performance of their followers. It includes behaviors like completing expected work tasks in time and adhering to job regulations (O'Reilly & Chatman, 1986). Scholars have explained the importance of investigating performance levels within team settings to comprehend how to further enhance it (Barnett & Weidenfeller, 2016), so that organizational innovation can be achieved long term (e.g., Lorinkova & Bartol, 2020; Wang & Jin, 2023). Such success is essential to ensure the long-term survival of companies, especially in today's fast-paced, demanding working dynamics, pressuring outcomes of competition within and between organizations (Arora et al., 2023). Scientific literature revealed that team performance levels are influenced by forces, such as the follower's perception of psychological safety within their working dynamics (Frazier et al., 2017) or the choice of leadership style within teams (Hoch, 2013). Besides this, the employees' extent of job satisfaction, their commitment to the workplace (Williams & Anderson, 1991), and motivation for power are supplementary variables underlining the importance to conduct further research on performance.

Multiple empirical studies demonstrated the interplay between these two variables (e.g., Ensley et al., 2006; Pearce & Sims, 2002; Sivasubramaniam et al., 2002). They illustrated that through SL; employees felt like they were given more resources and responsibility, encouraging work-related effort in return for being trusted (Katz & Kahn, 1978). This makes them more committed to their workplace, leading to more efficient results,

connected to advanced work performance (Day et al., 2004). However, contradictory research about the mentioned association also exists. Taggar et al. (1999) argue that SL rather has an indirect influence on performance. They only found an effect when high levels of leadership influence were present, suggesting that the degree of SL might be more positively related to team performance instead. Nevertheless, Yoo and Alvi (2004) and Ensley and colleagues (2006) found that SL was a stronger predictor of team performance than vertical leadership. Conclusively, we predict SL to positively impact team performance levels due to inclusive, honest environments (see Figure 1).

Hypothesis 1: Shared leadership is positively associated with employee performance.

Shared Leadership and Psychological Safety

Carson and colleagues (2007) illustrate the significance of effective SL, as it can make organizational structures become team-oriented, making members feel heard. In this context, SL also encompasses the reciprocal manager-employee leadership, making followers proactive. Being acknowledged is a central component of PS – a state where someone feels comfortable with mentioning work-related concerns or questions due to the leaders' advocation of non-judgmental, communicative environments (Garvin et al., 2008; Wu et al., 2020). Scholars show that the combination of clearly communicated SL responsibilities between managers and followers and PS at work benefits employees in adapting to group goals (Rahmadani et al., 2020), further strengthening social connections (Edmondson, 1999; Van de Vegt & Janssen, 2003). Such findings are supported by the social exchange theory (SET) by Blau (1964), suggesting that reciprocal help increases employees' sense of safety, which is stimulating their eagerness to engage in SL practices. This explains why they reported the employees' fear of reputational risk to be negatively affecting their likelihood to share extraordinary occupational ideas after prior rejection (Cropanzano & Mitchell, 2005). Past research highlighted that SL entails the members interdependencies concerning tasks and

involves shared or personal work goals that are likely to benefit their well-being, connected to enhanced perceptions of PS (Stanne et al., 1999). Hence, when leaders allow for open feedback, trial-and-error processes or provide resources and rewards (Pearce et al., 2014), amplified PS levels have been found (Carmeli et al., 2008). It clarifies why we expect SL leaders-follower relations to have a positive impact on PS in our second hypothesis (see Figure 1).

Hypothesis 2: Shared leadership is positively associated with psychological safety.

Psychological Safety and Performance

Only when all individual members of a company recognize that their presence is valued, they can be thriving, increasing their well-being and ability to demonstrate excellent work (Hoch, 2013). Thereby this culminates in better performance levels within organizations overall (Hoch, 2013; Pearce & Sims, 2002). When feelings of integrity and trust for and from the leader are present, Hoch (2013) additionally reflects that PS levels can be enhanced. Nevertheless, the author mentions that this is a multifaceted concept, influenced by more variables. Regardless, PS seems to be impacting performance, as it is supported by scientific papers (Edmondson, 1999; Wang & Jin, 2023). Furthermore, the meta-analysis by Frazier et al. (2017) concluded that this variable influences performance at both the individual and group level of analysis. Aligned with past research, followers reported feeling especially safe when leaders included minorities (Edmondson, 1999; Garvin, 2008). This creates more diverse teams where members are encouraged to challenge their conventional cognitions, fostering creativity levels (Williams & O'Reilly, 1998) – a characteristic connected to higher task interdependence, known to increase work-related performance in return (Van de Vegt & Janssen, 2003). Research shows that by giving employees the right to have a stake in working dynamics that facilitate group work and shared goals, members feel driven to engage in mutual helping practices (Stanne et al., 1999). According to Van de Vegt & Janssen (2003)

and the SET by Blau (1964), the more interpersonal interaction is present in companies, the more individuals strive towards set goals. This is paramount to fostering innovative work performances at team levels and discussed in other SL work (e.g., Garvin et al., 2008; Kahn, 1990; Van der Vegt & Bunderson, 2005). Since PS manages to influence performance levels of groups, it indicates the impact it has within organizational settings, leaving us to hypothesize that PS advances team performance (see Figure 1).

Hypothesis 3: Psychological safety is positively associated with performance.

The Mediator Psychological Safety of Shared Leadership and Psychological Safety

For a nuanced explanation of why there is a relationship between SL and performance, scholars demonstrated the need for mediators as they bridge the gap between the two variables (Sabir et al., 2022). Meta-analyses reported that PS acts as a driver of processes, because it is cultivated by SL practices and only influences performance levels if a psychologically safe environment is present (Kim et al., 2020; Sharma & Mehta, 2023; Wang et al., 2014). Following their research, mediators like PS decrease the risk of oversimplifying this causal process, as its absence may result in employees not wanting to cooperate, showing the central role of PS. For example, Wang et al. (2014) underlined that so-called emergent team states, including feelings of and the interaction between members, are more strongly shaped by SL than SL's immediate effects on performance. This exhibits why the relationship of SL and performance is understood in part through mediators like PS. Even when not specifically tested on mediating levels of PS, the analysis still shows that psychological states – just like PS is – are necessary to consolidate our knowledge of long-term organizational performance outcomes (Sabir et al., 2022).

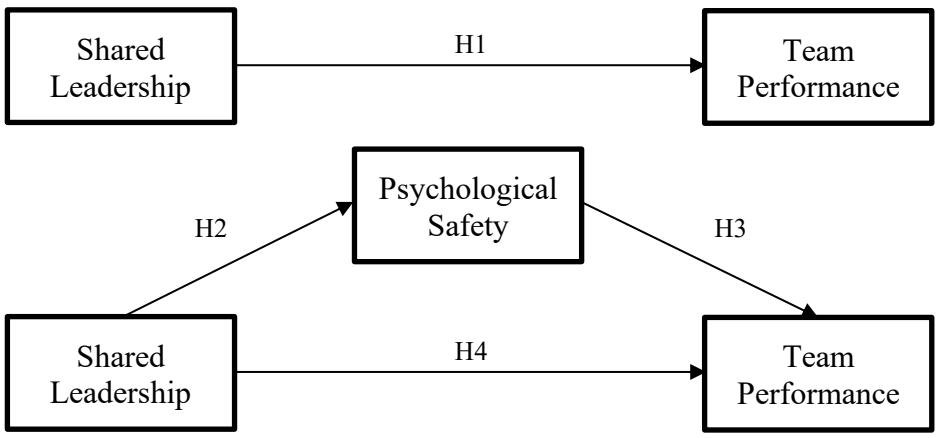
Moreover, Newman et al. (2017) mention the importance of understanding the antecedents of PS and the analysis of how it especially does increase the performances of teams. Yet, even in real-life settings, like the children's hospitals and clinics, researchers

observed more productive teams – visible through decreasing death rates at the hospital (Garvin et al., 2008). It was achieved through increasing the workers' PS through social exchange practices (SET) between colleagues (Blau, 1964), established through collaborative responsibilities (Garvin et al., 2008). This example illustrates that increased PS levels via SL can improve the teams' performance outcomes. Drescher et al. (2014) proposed that the more successful the process of improving SL practices is, the more trust – an organizational asset resulting in greater PS (Joo et al., 2022) – in teams can be developed. These high levels of PS are associated with workplace productivity, indicating a mediating effect. As failing to allow for enhanced PS levels at work can result in reduced performances, it underlines that the interplay is only this strong due to its mediating influence (Drescher et al., 2014; Wang, 2014). Beyond hypothesizing the direct effect of SL on performance (H1), this study further extends research by proposing a mediating pathway via PS. Hence, this explains the reasoning for our fourth hypothesis (see Figure 1).

Hypothesis 4: Psychological safety mediates the relationship between shared leadership and performance within a team.

Figure 1.

Research Model: Relationship of Shared Leadership With Team Performance Mediated by Psychological Safety



Methods

Participants

After removing participants with invalid data, like missing matching codes with the partner, we ended up with an effective sample size of n = 266 of employees and their managers, namely n = 133 dyads. The average age for leaders was 43.79 (SD = 11.38), with 41.4 % females and 58.6 % males. Employees had an average age of 27.65 (SD = 8.25), where 57.1 % were female and 42.9 % were male. Most participants (43.6%) reported working in organizations with over 250 team members. The majority of employees (30.8%) have been working between 2 and 5 years at their current job. While it was most frequently indicated for all participants to have a bachelor's degree as their highest qualification (37.7%), it was more commonly held by leaders (44.4%) than their followers (31.1%). To participate in our study, prospective candidates had to be part of a dyadic relationship between managers and leaders at their workplace, as we asked both related parties to complete our questionnaire about each other. For comparability reasons, our data analysis concentrates on the Dutch-speaking population only. Furthermore, we exclusively accepted participants authenticating to work at least 17 hours per week, positioned in the Netherlands, and part of a team. If all criteria were met, they were regarded in our analysis.

Design and Procedure

This field study has been conducted at a single point in time. It profits from a multi-sourced setting, using a quantitative design of research focused on the influence of SL on PS and performance in organizations. Approval from the Faculty of Behavioral and Social Sciences Ethics Committee was granted, following the ethical guidelines of the National Ethics Counsil for Social and Behavioral Sciences. Regarding the data collection, we aimed for a convenience sample approach and chain referral sampling techniques. The Bachelor students' direct social network enabled access to a range of different workplace sectors. Besides making use of our immediate personal circles, we expanded our sample by

approaching local companies in person and through digital manners like emails to provide them with QR codes to our questionnaire. Participants received detailed information about the study's purpose, research objectives, their possibility to withdraw throughout the questionnaire, and knew that data was processed anonymously. Following voluntary consent, based on their role at work, they were invited to fill out the corresponding Qualtrics questionnaire before sending it to their dyad partner. Completing either questionnaire took about 10 minutes. Since participants information was confidential but we were interested in the dynamics between both parties, researchers matched their responses through a coding system consisting of the two last letters of their name. This guaranteed credibility with respect to our research.

In the leader questionnaire, a total of 7 variables – like trust or reflexibility levels – measured the named leader-follower dyad. Some measurements were only answered by the leader, namely creativity and performance levels. The employee questionnaire consisted of 11 out of 13 possible variables, uniquely assessing their self-efficacy levels or destructive leadership actions.

Measures

Independent Variable: Shared Leadership

To determine SL, we relied on 18 leadership items of the 7-point Likert scale adapted from Hoch et al. (2013) to fit the dyadic level. It is ranging from 1 (strongly agree) to 7 (strongly disagree). This questionnaire asked employees to score claims about their leaders' management abilities based on individual perceptions regarding past experiences. Higher scores showed that leaders are seen as successful in fostering a supportive, change-driven atmosphere for their team. The first six items being about transformational leadership manners, employees had to rate how much they agreed with the following statement for instance: "My team leader shows enthusiasm for my efforts". 7 further items measure the

individual empowering leadership style, assessed through statements such as “My team leader encourages me to search for solutions to my problems without supervision.” The last items focused on the leadership coordination, illuminating the extent to which leaders are thought to empower their team. This subscale was operationalized through item representatives like “My team leader expects that the collaboration with other team members in the team works well” (see Appendix A, Scale 1). The reliability for the shared leadership scale was Cronbach’s alpha = .90.

Mediator Variable: Psychological Safety

PS was measured using the scale adapted from Gravin et al. (2008) to demonstrate whether a company can be identified as a learning organization. It puts emphasis on creating a holistic workplace environment where mistakes are interpreted as an essential chance for adaptations and knowledge acquisition. Derived from four key dimensions – including leadership for learning, learning environment, learning processes and practices, and learning opportunities at the workplace – the organization’s possibilities to enhance the teams’ learning abilities were analyzed. To exemplify, the dimension regarding learning environment consisted of statements ranked by both parties based on a 7-point Likert scale, ranging from 1 (strongly agree) to 7 (strongly disagree), such as “Employees are given time to reflect on their work.” Furthermore, the subcomponent about leadership that reinforces learning included claims like “My managers encourage multiple points of view” or “My managers provide time, resources and venues for reflecting and improving past performances” (see Appendix A, Scale 2). High scores offered indications of facilitative, supportive learning practices provided by and for employees and leaders of an organizational context. This assessment tool had a Cronbach’s alpha of $\alpha = .70$.

Dependent Variable: Performance Levels

In line with current literature, performance was measured with two scales before we averaged the items into one value, providing a fuller coverage of PS (Stefana et al., 2025). Both scales measure the same construct, limiting the discriminant variance, so combining them optimizes our measurement validity (Cheung et al., 2023).

Based on the team performance scale adapted from Van der Vegt and Bunderson (2005), we obtained insight into the performance variable within real-world teams. It is multidimensional, consisting of five main components – efficiency, quality of output, overall goal achievement, productivity, and mission fulfillment. This scale allowed team leaders to rate their employees' performance levels on a 7-point Likert scale, ranging from 1 (strongly agree) to 7 (strongly disagree). High scores represented effective individuals within work teams, increasing the likelihood of reaching their goals. A representative statement of this scale includes "How would you evaluate the team's ability to achieve its objectives?" (see Appendix A, Scale 3). This scale was reliable with a Cronbach's alpha of $\alpha = .93$.

Furthermore, we used a measure adapted from Williams and Anderson (1991) to explain the mediator variable by referring to statements, including 21 items categorized in three types of citizenship actions at the workplace. Those three dimensions pertained to individual-, organizational-, and in-role-organizational citizenship behaviors. Responses were evaluated with a 7-point Likert scale, spanning from 1 (strongly agree) to 7 (strongly disagree). One item for the first level was "Helps others who have heavy workloads." The second dimension included claims such as "Conserves and protects organizational property", while the final measure emphasized items like "Fulfills responsibilities specified in job description" (see Appendix A, Scale 4). The Cronbach's alpha varied for each measure; with $\alpha = .86$ for the individual level, $\alpha = .88$ for organizational-directed behaviors, and the least internal validity for in-role behaviors, measured with $\alpha = .69$. The Cronbach's alpha combined for all items showed that the scale is reliable with $\alpha = .90$.

Results

The mediation effect of PS on SL and performance was analyzed through the PROCESS macro by Hayes (2013) in SPSS30. To verify the appropriateness of our results based on a moderation analysis, we will present the descriptive statistics (see Table 1) and additional assumption testing beforehand.

Descriptives Statistics

The following table describes key sample statistics and correlations of our model. All three variables have a moderately high mean score, indicating a generally positive appraisal of respondents towards our constructs. According to Table 1, the correlations between variables also seem to be significant, since SL is positively associated with PS but less strong with performance outcomes, while PS is also positively related to performance levels.

Table 1

Means, Standard Deviations, and Correlations of Study Variables

	N	M	SD	1.	2.
Shared Leadership	135	5.40	.87		
Psychological Safety	135	5.86	.80	.494*	
Performance	133	5.90	.72	.264*	.349*

Note: N (individuals); *p < .01 (2-tailed).

Regression Assumption Testing

First, the linearity assumption was checked. According to the scatterplot (see Appendix B, Figure 1), a positive, consistent and proportional change of SL on performance and an even stronger correlation of SL with PS have been found. Therefore, the use of linear regression for all variable pairs is supported.

Apart from that, the normality of our residuals was confirmed through a Q-Q plot and histogram (see Appendix B, Figure 2 and 3), aside from the Kolmogorov-Smirnov and

Shapiro-Wilk test (see Appendix C, Table 3). Although only the first two tests indicated that prediction errors are approximately following normal patterns, it is still reasonable to assume a normal distribution due to the robustness of minor irregularities in case of larger sample sizes, such as ours with $n = 133$.

Furthermore, the homoscedasticity assumption was met. As the spread across predicted residuals remains the same in Figure 4 (see Appendix B), this assumption appears to be satisfied.

Using the variation inflation factor (VIF), we confirmed that no dependent residuals posed a concern among predictors within our regression. With a VIF of 1.33 and its corresponding tolerance value of .75 both significantly below the cutoff factor, we can reasonably assume that the multicollinearity assumption is fulfilled.

Before presenting our results, we checked for potential outliers. In fact, after the inspection of values regarding Cook's Distance (see Appendix C, Table 4), one atypical observation exceeding the threshold of 1, measured at 1.84, became vivid. However, as this single data point does not have a major influence on our regression model and the otherwise lower average of .02 Cook's Distance, the remaining data points exhibit a balanced independence across the sample. Conclusively, there was no urgent need to exclude the isolated case from our data.

Hypothesis Testing

With our first hypothesis, we predicted that SL practices would be positively associated with performance levels at the workplace. For evaluation, we conducted a linear regression analysis predicting performance (see Table 2). According to those results, the argumentation of a direct effect between both variables is not supported, as the regression is not significant ($b = .10$, $t(131) = 1.27$, $p = .205$). Additionally, the 95% confidence interval (CI) includes 0 ($95\%\ CI = [-.06; .26]$), highlighting that solely engaging in SL will not

increase the performance within teams. This contradicts our hypothesis, although a positive, moderate correlation was found ($r = .264$, $p = .02$).

However, our second hypothesis, predicting that SL has a positive effect on the employee's perception of PS, is being supported based on our results ($b = .46$, $t(131) = 6.55$, $p < .001$). Therefore, a single unit increase in SL leads to an approximate unit increase of .5 in PS if other factors are controlled for. A simple linear regression also illustrated that the model is significant, and that SL explains approximately 25% of the variance in PS ($F(1,131) = 42.86$, $p < .001$, $R^2 = .25$).

We proposed PS to be positively related to performance in our third hypothesis. The analysis displayed that this prediction turned out to be correct, because positive, statistically significant results have been recorded ($b = .26$, $t(130) = 3.08$, $p = .0025$). The 95% CI further indicates that PS has a significant effect on performance outcomes when controlling for SL (see Table 2).

For our fourth hypothesis, the mediation analysis examined whether predicting that the relationship between SL and performance is mediated by the employees' subjective PS at work is logical. The total effect of SL on performance turned out to be significant (see Table 2). Even though the direct effect was not significant as stated earlier, the indirect effect of this relationship mediated through PS was found to be significant ($b = .12$), further supported by the CI (see Table 2). Drawing from these outcomes, patterns of mediation become recognizable, given that the employees' perceived PS is crucially impacting SL's prediction on performance at work, rendering the direct effect of our model nonsignificant.

Overall, our analysis showed that the global model is statistically significant ($F(2,130) = 9.95$, $p = .0001$, $R^2 = .13$) with a moderate model fit ($R = .36$) and revealed that both variables SL and PS jointly explain around 13.3% of the variance in our outcome variable performance.

Table 2
Results of the Regression Analysis Predicting Performance

Path	Predictor	Outcome	B	SE	t	*p*	95% CI (LL, UL)
a	SL	PS	.46	.07	6.55	<.001	[.32; .60]
b	PS	P	.26	.08	3.08	.0025*	[.09; .42]
c' (direct)	SL	P	.10	.08	1.27	.2050	[-.06; .26]
c (total)	SL	P	.22	.07	3.13	.0022*	[.08; .36]
ab (indirect)	SL	P	.12	.05			[.03; .23]

Note. N = 133. Bootstrap results are based on 5000 samples. The indirect effect is based on the multiplication of a * b. *p < .05.

Discussion

The goal of this study was to evaluate the relationship of SL practices and performance levels at workplaces, primarily examining whether the employees' perceived feelings of PS serve as a mediator, based on a data collection regarding both team members and their corresponding leaders. However, not all predictions are supported. No significant direct effect of SL on performance was present in our results, while our final hypothesis was supported, indicating a positive, significant and indirect association between SL and performance capacities through increased PS.

Theoretical Implications

Shared Leadership and Performance

We first hypothesized that SL within Dutch organizations would be positively associated with performance, due to past research regarding the effects of SL on teams and their performance levels (e.g., Carson et al., 2007; Hoch, 2013) and many papers reporting significant direct effects (e.g., Ensley; Pearce & Sims, 2002). Contrary to these scholars, our data did not represent such direct, significant relationship. Undeniably, these findings are not due to sample size limitations. However, our results align with Pearce and Sims (2002), who explained that based on the new challenges requiring extra time and resources originating

through introducing SL practices between employees and leaders, performance outcomes can decrease. Their paper argues that SL misses strict policies present in vertical leadership styles, making decision-making and communication processes within teams harder, decreasing performance levels, therefore explaining our insignificant results (Tang et al., 2024). Furthermore, it can be argued that our findings differ from other literature's findings because we specifically explored companies in the Netherlands known for their individualistic work cultures, possibly influencing performance drivers differently (Hofstede, 1980). Other scholars (e.g., Drescher et al., 2014; Hoch et al., 2010) also found a positive but less strong association between SL and performance, which is still different from our insignificant results but reveals stronger context-dependency than earlier expected (Hofstede, 1980). To exemplify, Hoch et al. (2010) reported that greater age diversity and coordination weaken the SL-performance relationship. Lastly, Wang et al. (2014) highlight that this interplay becomes significant but only through indirect pathways mediating the relationship, thus explaining our insignificant results, later discussed in this discussion.

Shared Leadership and Psychological Safety

The second hypothesis, namely that there is a positive relationship between SL and an employee's degree of PS, was supported by our data analysis. Hence, these findings extend the work by Carson and colleagues (2007), who also found significant results for, and therefore emphasized the importance of, SL at the workforce to predict the PS of team members (e.g., Garvin et al., 2008; Stanne et al., 1999; Wu et al., 2020). As our study authenticates the outcomes of previous research, it is reasonable to strengthen our beliefs about further promoting the present-day approach of letting leaders share responsibilities (Van der Vegt & Bunderson, 2005) to achieve feelings of PS in their employees. Furthermore, our positive results support the application of the SET (Blau, 1964), as it emphasizes that the social, mutual exchange of trust is crucial for the development of our PS perceptions (Carson

et al., 2007). In agreement with the findings, literature explains that PS levels can only be increased under a SL context (Han et al., 2019). In practical organizational terms, both our results and the broader literature highlight that cultivating an open-minded, non-judgmental working atmosphere can be effectively achieved when strategically facilitating SL dynamics.

Psychological Safety and Performance

Additionally, we hypothesized that PS is positively associated with performance, in consideration of the SET (Blau, 1964) arguing that mutual support helps to make people feel psychologically safe, leaving them more comfortable and motivated to perform well. Indeed, this third hypothesis aligns with our findings. We found a statistically significant, positive relationship between the two variables in our data analysis. Thus, they affirm past research outcomes (e.g., Edmondson, 1999; Frazier et al., 2017; Wang & Jin, 2023). These scholars stress creating a trusting, open, and inclusive working environment in high-functioning teams, so that it positively affects the team members' PS levels – thereby ultimately contributing to their personal motivation to perform (Hoch, 2013; Pearce & Sims, 2002). Aligning with the SET and our findings, Ito and colleagues (2022) emphasize that augmenting interpersonal connections and working conditions generates elevated performance outcomes.

The Mediating Role of Psychological Safety

Lastly, the main hypothesis argues that PS mediates the relationship between SL and the degree of performance. Corroborating with our initial assumptions, a mediating effect was observed in our results. In fact, the findings indicated that a positive relationship between SL and performance can be found when also including PS in the model: As the total model is significant, although our direct relationship between SL and performance is nonsignificant, this shows that a substantial key part of this association is explained through PS. Similar findings are proposed by Newman et al. (2017) and Wang et al. (2014), because they revealed the mediating role of psychological states in leadership effectiveness frameworks. Besides

this indirect effect of the SL-performance interplay, they also reported a direct link, unlike our findings. Nevertheless, both their broad examination of general team-related effectiveness indicators – like attitudinal outcomes – but also our specific focus on performance outcomes rated by managers demonstrates the complexity of this relationship. Therefore, combined with other recent researchers (e.g., Drescher et al., 2014; Kim et al., 2020; Sabir et al., 2022; Sharma & Mehta, 2023), these studies exhibit a notable coherence in their interpretations: The appraisal of PS is central in explaining the relationship of SL on performance.

Strengths

Why the present study extends past literature regarding the interplay of SL on performance, explained by PS levels, will be discussed in the following: First, our analysis was based on a questionnaire designed for both employees and their corresponding leaders to fill out. Although past scholars primarily focused on one of these two parties, we used a dyadic approach, providing us with more detailed outcomes. Accordingly, we gained a unique, holistic overview of the relations between the variables and broadened insights into PS as the mediating mechanism of the SL-performance interplay. Furthermore, our study expands trending research, since the idea of PS acting like a mediator has predominantly been mentioned by scholars (e.g., Wang et al., 2014), but not often tested with real data like we did. The questionnaire was available to a range of real workplace leader-employee relations, making our sample moderately generalizable in the Netherlands. Consistent measurements and utilization of different item scales per construct ensured the validity and reliability of our results. Because we narrowed our research to Dutch companies, known for their egalitarian beliefs like SL practices (Hofstede, 1980), we achieved high levels of internal validity. This leads to culturally grounded, well-adjusted predictions for improving performance within local organizational practices. The study refines theories possibly influencing future practices in companies, beneficial for all organizational constituents.

Limitations and Future Research Directions

Besides these strengths, our study contains weaknesses warranting consideration in future directions. Due to the use of a cross-sectional design, little can be said about the causality between the relationships of our three variables theoretically observed. To illustrate, whether SL creates more psychologically safe environments or if it is PS that increases engagement in SL practices instead remains unclear. Following this, temporal precedence is limited. Similar ongoing scholarly inquiry would derive value from longitudinal approaches. Ideally implemented before, during, and after organizational transitions to SL tactics, such study design would extend our knowledge of the true nature of the SL-performance interplay via PS with time. The strength of achieving a context-specific understanding about the Dutch population may simultaneously introduce a constraint, because it limits our results' generalizability. Future research can account for it by conducting culturally diverse dyads.

Although our questionnaire measured PS for leaders and employees, we only considered employees' PS levels for our analysis of the SL-performance relationship for brevity. By including the leaders' PS too, it can be understood how different perceptions further influence performance outcomes at work, nuancing knowledge about its mediating role. That idea is supported by Mogård et al. (2022), who showed that PS in managers was crucial to capture the full dynamics of team functioning – insights that would have been missed if left out of the evaluation. Another limitation was the loss of many technically evaluable data points due to the reported confusion across participants about creating name codes with their dyad partner. In future replications, researchers must find an alternative for dyad identification, as this drawback can easily be avoided. Giving every leader-follower pair a unique QR code that matches their data by sharing identification is a plausible substitute for it. This requires more technical work but leads to bigger, informative samples, increasing the reliability of prospective findings while protecting every participant's anonymity.

Complementary mechanisms, such as investigating a possible moderating role of PS, can also enrich the expertise of this complex research field, even though we found significant results in our mediation analysis. Since past literature left this moderation model underexplored, further investigation might clarify when SL impacts performance via PS. Additionally, exploring whether other mediating variables, possibly even related to PS levels like Team-Member Exchange (Tang et al., 2024), also positively impact the correlation of SL and performance is advisable. As it reflects team collaboration and reciprocal support – a predictor of psychologically safe environments (Hoch et al., 2013) – follow-up research should investigate how they interact with each other to broaden the SL-performance relationship (Tang et al., 2024).

Practical Implications

Based on our significant results, employees‘ PS can facilitate performance levels at workplaces favoring SL styles, outlining the relevance of applying practical strategies to maximize organizational performance.

By gradually introducing collective ownership tasks for both leaders and followers, stakeholders can familiarize the team with SL oriented work environments. To illustrate, members build their confidence through temporal alternating leadership roles, such as managing small projects, where realizing personal ideas is valued. Leaders should make sure that the distribution of roles is clear and that everyone is supported with decision-making trainings so that all team parties equally contribute to the company’s effectiveness. Leader training programs that teach how to deal with criticism by using information to turn it into constructive action could be beneficial. Built on the SET, organizations should foster the relationships between all workers through social networking events in and beyond work, thereby creating supportive, psychologically safe environments and mutual trust. In line with our findings, teams might improve from regular check-in meetings where open

communication is expected and anonymous feedback from every member helps identify where further organizational improvement is necessary. Letting the team reflect on past setbacks together and come up with advanced shared goals to account for such, promotes more consistent performance outcomes through heightened motivation to engage in SL practices. Furthermore, it can be helpful to constantly keep track of members' PS levels at work through mandatory monthly questionnaires or personal meetings with the company's well-being manager. Based on these opinions, work distributions could be adapted, and members would receive individual care when struggling. By strategically implementing these actions, high-performing, diverse, supporting and reflective teams can be constructed.

Conclusion

The complex interplay of SL practices on performance outcomes in Dutch team dyads was investigated by testing whether subjective PS feelings of employees mediated this relationship. With our study, including both employee and leader responses, we were able to find significant results for three of our four predictions. SL did not have a direct, significant effect on performance levels. Yet, this interaction becomes indirectly significant once adding the mediator variable PS to the model. We found that SL significantly predicts PS, just like PS is positively associated with performance. These results show that SL can positively influence PS levels in employees, ultimately leading to enhanced organizational performance outcomes. Accordingly, our study is a nuanced addition to existing literature by providing dyadic real-world insights, which increase our practical knowledge of these dynamics. Nevertheless, causal conclusions cannot be made due to our cross-sectional sample design, highlighting why future research benefits from longitudinal study designs that include more diverse, contextually varied, and generalizable working dyads. Moreover, subsequent research must account for technical challenges to avoid sample loss and investigate effects of related mediators like Team-Member Exchange for holistic overview of SL-P dynamics.

Conclusively, this study examines how, by valuing subjective levels of PS, organizations can improve their performance outcomes in SL working environments to boost institutional productivity.

References

Arora, R., Gajendragadkar, S., & Neelam, N. (2023). Team effectiveness: a key to success in 'IT organizations.' *Australasian Accounting Business and Finance Journal, 17*(1), 97–110. https://doi.org/10.14453/aabfj.v17i1.08

Barnett, R. C., & Weidenfeller, N. K. (2016). Shared leadership and team performance. *Advances in Developing Human Resources*, *18*(3), 334–351. https://doi.org/10.1177/1523422316645885

Blau, P. M. (1964). Justice in social exchange. *Sociological Inquiry*, *34*(2), 193–206. https://doi.org/10.1111/j.1475-682x.1964.tb00583.x

Carmeli, A., Brueller, D., & Dutton, J. E. (2008). Learning behaviours in the workplace: The role of high-quality interpersonal relationships and psychological safety. *Systems Research and Behavioral Science*, *26*(1), 81–98. https://doi.org/10.1002/sres.932

Carson, J. B., Tesluk, P. E., & Marrone, J. A. (2007). Shared leadership in teams: An investigation of antecedent conditions and performance. *Academy of Management Journal, 50* (5), 1217–1234. https://doi.org/10.5465/amj.2007.20159921

Chen, W., Zhang, J.H., & Zhang, Y.L. (2022). How shared leadership affects team performance: examining sequential mediation model using MASEM. *Journal of Managerial Psychology*, *37*(7), 669–682. https://doi.org/10.1108/JMP-04-2021-0258

Cheung, G. W., Cooper-Thomas, H. D., Lau, R. S., & Wang, L. C. (2023). Reporting reliability, convergent and discriminant validity with structural equation modeling: A review and best-practice recommendations. *Asia Pacific Journal of Management*, *41*(2), 745–783. https://doi.org/10.1007/s10490-023-09871-y

Cropanzano, R., & Mitchell, M. S. (2005). Social Exchange Theory: An Interdisciplinary Review. *Journal of Management*, *31*(6), 874–900. https://doi.org/10.1177/0149206305279602

Day, D. V., Gronn, P., & Salas, E. (2004). Leadership capacity in teams. *The Leadership Quarterly*, *15* (6), 857–880. https://doi.org/10.1016/j.leaqua.2004.09.001

D'Innocenzo, L., Mathieu, J. E., & Kukenberger, M. R. (2016). A Meta-Analysis of Different Forms of Shared Leadership–Team Performance Relations. *Journal of Management*, a *42*(7), 1964–1991. https://doi.org/10.1177/0149206314525205

Drescher, M. A., Korsgaard, M. A., Welpe, I. M., Picot, A., & Wigand, R. T. (2014). The dynamics of shared leadership: Building trust and enhancing performance. *Journal of Applied Psychology*, *99*(5), 771–783. https://doi.org/10.1037/a0036474

Edmondson, A. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly, 44*(2), 350–383. https://doi.org/10.2307/2666999

Ensley, M. D., Hmieleski, K. M., & Pearce, C. L. (2006). The importance of vertical and shared leadership within new venture top management teams: Implications for the performance of startups. *The Leadership Quarterly*, *17*(3), 217–231. https://doi.org/10.1016/j.leaqua.2006.02.002

Ensley, M. D., Pearson, A., & Pearce, C. L. (2003). Top management team process, shared leadership, and new venture performance: a theoretical model and research agenda. *Human Resource Management Review*, *13*(2), 329–346. https://doi.org/10.1016/s1053-4822(03)00020-2

Frazier, M. L., Fainshmidt, S., Klinger, R. L., Pezeshkan, A., & Vracheva, V. (2017). Psychological safety: A meta-analytic review and extension. *Personnel Psychology, 70*(1), 113–165. https://doi.org/10.1111/peps.12183

Garvin, D. Edmondson, A., and Gino, F. (2008). Is yours a learning organization? Harvard a Business Review, March: 109-116

Gibb, C. A. (1954). Leadership. In G. Lindzey (Ed.), Handbook of Social Psychology, Volume 2 (pp. 877–917). Reading, MA: Addison-Wesley

Han, S. J., Lee, Y., & Beyerlein, M. (2019). Developing team creativity: The influence of psychological safety and relation-oriented shared leadership. *Performance Improvement Quarterly, 32*(2), 159–182. https://doi.org/10.1002/piq.21293

Hayes, A. F. (2013). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach.*The Guilford Press.*

Hmieleski, K. M., Cole, M. S., & Baron, R. A. (2011). Shared authentic leadership and new venture performance. *Journal of Management*, *38*(5), 1476–1499. https://doi.org/10.1177/0149206311415419

Hoch, J. E., Pearce, C. L., & Welzel, L. (2010). Is the Most Effective Team Leadership Shared? *Journal of Personnel Psychology*, *9*(3), 105–116. https://doi.org/10.1027/1866-5888/a000020

Hoch, J.E. Shared Leadership and Innovation: The Role of Vertical Leadership and Employee Integrity. *J Bus Psychol* 28, 159–174 (2013)

Hofstede, G. (1980). *Culture's consequences: international differences in work-related values*. Sage Publications.

Ito, A., Sato, K., Yumoto, Y., Sasaki, M., & Ogata, Y. (2022). A concept analysis of psychological safety: Further understanding for application to health care. *Nursing open*, *9*(1), 467–489. https://doi.org/10.1002/nop2.1086

Joo, B., Yoon, S. K., & Galbraith, D. (2022). The effects of organizational trust and empowering leadership on group conflict: psychological safety as a mediator. *Organization Management Journal*, *20*(1), 416. https://doi.org/10.1108/omj-07-2021-1308

Kim, S., Lee, H., & Connerton, T. P. (2020). How Psychological Safety Affects Team Performance: Mediating Role of Efficacy and Learning Behavior. *Frontiers in psychology, 11,* 1581. https://doi.org/10.3389/fpsyg.2020.01581

Kozlowski, Steve & Gully, Stan & Mchugh, Patrick & Salas, Eduardo & Cannon-Bowers, Janis. (1996). A dynamic theory of leadership and team effectiveness: Developmental and task contingent leader roles. *Research in personnel and human resources management, 14*. 253-306.

Kozlowski, S. W. J., & Bell, B. S. (2003). Work groups and teams in organizations. In W. C. Borman, D. R. Ilgen, & R. J. Klimoski (Eds.), *Handbook of psychology: Industrial and organizational psychology,* Vol. 12, pp. 333–375). John Wiley & Sons, Inc.. https://doi.org/10.1002/0471264385.wei1214

Katz, D., & Kahn, R.L. (1978). The Social Psychology of Organizations (2nd ed.). New York: Wiley.

Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, *33*(4), 692–724. https://doi.org/10.5465/256287

Lorinkova, N. M., & Bartol, K. M. (2020). Shared leadership development and team performance: A new look at the dynamics of shared leadership. *Personnel Psychology*, *74*(1), 77–107. https://doi.org/10.1111/peps.12409

Mogård, E. V., Rørstad, O. B., & Bang, H. (2022). The Relationship between Psychological Safety and Management Team Effectiveness: The Mediating Role of Behavioral Integration. *International journal of environmental research and public health*, *20*(1), 406. https://doi.org/10.3390/ijerph20010406

Morgeson, F. P., DeRue, D. S., & Karam, E. P. (2010). Leadership in Teams: A functional approach to understanding leadership structures and processes. *Journal of Management*, *36*(1), 5–39. https://doi.org/10.1177/0149206309347376

Newman, A., Donohue, R., & Eva, N. (2017). Psychological safety: A systematic review of the literature. *Human Resource Management Review*, *27*(3), 521–535. https://doi.org/10.1016/j.hrmr.2017.01.001

O'Reilly, C. A., & Chatman, J. (1986). Organizational commitment and psychological attachment: The effects of compliance, identification, and internalization on prosocial behavior. *Journal of Applied Psychology*, *71*(3), 492–499. https://doi.org/10.1037/0021-9010.71.3.492

Pearce, C. L. (2004). The future of leadership: Combining vertical and shared leadership to transform knowledge work. *Academy of Management Perspectives, 18*(1), 4757. https://doi.org/10.5465/ame.2004.12690298

Pearce, C. L., & Sims, H. P., Jr. (2002). Vertical versus shared leadership as predictors of the effectiveness of change management teams: An examination of aversive, directive, a transactional, transformational, and empowering leader behaviors. *Group Dynamics: Theory, Research, and Practice, 6*(2), 172– 197. https://doi.org/10.1037/1089-2699.6.2.172

Pearce, C. L., Wassenaar, C. L., & Manz, C. C. (2014). Is shared leadership the key to responsible leadership? *Academy of Management Perspectives*, *28*(3), 275–288. https://doi.org/10.5465/amp.2014.0017

Rahmadani, V. G., Schaufeli, W. B., Stouten, J., Zhang, Z., & Zulkarnain, Z. (2020). Engaging Leadership and Its Implication for Work Engagement and Job Outcomes at the Individual and Team Level: A Multi-Level Longitudinal Study. *International*

journal of environmental research and public health, *17*(3), 776. https://doi.org/10.3390/ijerph17030776

Sabir, M., Shoukat, M. H., Shah, S. A., Selem, K. M., & Shaukat, H. (2022). Linking shared leadership with pharmaceutical team sales performance in Pakistan: a dual mediation model. *Team Performance Management*, *28*(7/8), 526–542. https://doi.org/10.1108/tpm-05-2022-0037

Serban, A., & Roberts, A. J. (2016). Exploring antecedents and outcomes of shared leadership in a creative context: A mixed-methods approach. *The Leadership Quarterly*, *27*(2), 181–199. https://doi.org/10.1016/j.leaqua.2016.01.009

Sharma, S., & Mehta, S. (2023). Psychological Safety and Creativity in Teams: A Mediated Moderation Model of Shared Leadership and Team Diversity. *IIM Kozhikode Society & Management Review*, *0*(0). https://doi.org/10.1177/22779752231163356

Sinclair, B. (1992). The Emergence of Strong Leadership in the 1980s House of Representatives. *The Journal of Politics, 54*, 657-684. https://doi.org/10.2307/2132306

Sivasubramaniam, N., Murry, W. D., Avolio, B. J., & Jung, D. I. (2002). A Longitudinal Model of the Effects of Team Leadership and Group Potency on Group Performance. *Group & Organization Management*, *27*(1), 6696. https://doi.org/10.1177/1059601102027001005

Small, E. E., & Rentsch, J. R. (2010). Shared leadership in teams. *Journal of Personnel Psychology*, *9*(4), 203–211. https://doi.org/10.1027/1866-5888/a000017

Stanne, M. B., Johnson, D. W., & Johnson, R. T. (1999). Does competition enhance or inhibit motor performance: a meta-analysis. *Psychological bulletin*, *125*(1), 133–154. https://doi.org/10.1037/0033-2909.125.1.133

Stefana, A., Damiani, S., Granziol, U., Provenzani, U., Solmi, M., Youngstrom, E. A., & Fusar-Poli, P. (2025). Psychological, psychiatric, and behavioral sciences

measurement scales: best practice guidelines for their development and validation. *Frontiers in psychology*, *15*, 1494261. https://doi.org/10.3389/fpsyg.2024.1494261

Taggar, S., Hackew, R., & Saha, S.K. (1999). Leadership emergence in autonomous work teams: Antecedents and outcomes. *Personnel Psychology, 52*, 899-926. https://doi.org/10.1111/J.1744-6570.1999.TB00184.X

Tang, B., Han, Y., He, G., & Li, X. (2024). The chain mediating effect of shared leadership on team innovation. *Heliyon*, *10*(3), e25282. https://doi.org/10.1016/j.heliyon.2024.e25282

Van der Vegt, G. S., & Bunderson, J. S. (2005). Learning and performance in multidisciplinary teams: The importance of collective team identification. *Academy of Management Journal*, *48*(3), 532-547. https://doi.org/10.5465/amj.2005.17407918

Wang, D., Waldman, D. A., & Zhang, Z. (2014). A meta-analysis of shared leadership and team effectiveness. *The Journal of applied psychology*, *99*(2), 181–198. https://doi.org/10.1037/a0034531

Wang, Y., & Jin, X. (2023). Exploring the Role of Shared Leadership on Job Performance in IT Industries: Testing the Moderated Mediation Model. *Sustainability*, *15*(24), 16767. https://doi.org/10.3390/su152416767

Wei, L. T., & Yazdanifard, R. (2014). The impact of Positive Reinforcement on Employees' Performance in Organizations. *American Journal of Industrial and Business Management*, *04*(01), 9–12. https://doi.org/10.4236/ajibm.2014.41002

Williams, L. J., & Anderson, S. E. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and In-Role behaviors. *Journal of Management*, *17*(3), 601–617. https://doi.org/10.1177/014920639101700305

Williams, K.Y. and O'Reilly, C.A. (1998) Demography and Diversity in Organizations: A Review of 40 Years of Research. *Research in Organizational Behavior: An Annual Series of Analytical Essays and Critical Reviews, 20*, 77-140.

Wu, Q., Cormican, K., & Chen, G. (2020). A meta-analysis of shared leadership: antecedents, consequences, and moderators. *Journal of Leadership & Organizational Studies, 27*(1), 49–64. https://doi.org/10.1177/1548051818820862

Zaccaro, S. J., Rittman, A. L., & Marks, M. A. (2001). Team leadership. *The Leadership Quarterly*, *12*(4), 451–483. https://doi.org/10.1016/s1048-9843(01)00093-5

Appendix A - Scale Measures

Scale 1: Translated Scale Measuring Shared Leadership (Hoch et al., 2013)

De volgende vragen gaan over uw leidinggevende.

Geef alstublieft aan in hoeverre u het eens bent met de stellingen.

[1 Helemaal mee oneens; 7 Helemaal mee eens; 4 niet mee eens, niet mee oneens]

1. Mijn leidinggevende geeft een duidelijk beeld van waar ons team voor staat.
2. Mijn leidinggevende is gedreven door hogere doelen of idealen.
3. Mijn leidinggevende laat waardering zien voor mijn inspanningen.
4. Mijn leidinggevende moedigt mij aan om ideeën te heroverwegen die nooit eerder in twijfel getrokken zijn.
5. Mijn leidinggevende maakt gebruik van veel verschillende perspectieven om problemen op te lossen.
6. Mijn leidinggevende moedigt mij aan om meer te doen dan alleen dat wat van mij verwacht wordt (bijv. extra inspanning).
7. Mijn leidinggevende moedigt mij aan om zelf oplossingen te zoeken voor mijn problemen in het werk.
8. Mijn leidinggevende dringt aan om zelf verantwoordelijkheid voor het werk te nemen.
9. Mijn leidinggevende moedigt mij aan om nieuwe dingen te leren.
10. Mijn leidinggevende moedigt mij aan om mezelf een schouderklopje te geven wanneer ik een nieuwe uitdaging heb behaald.
11. Mijn leidinggevende moedigt mij aan om samen te werken met andere teamleden.
12. Mijn leidinggevende adviseert mij om mijn werk af te stemmen met anderen, die onderdeel uitmaken van het team.
13. Mijn leidinggevende dringt erop aan om als een team samen te werken met anderen, die deel uitmaken van het team.

14. Mijn leidinggevende verwacht dat de samenwerking met de andere teamleden goed verloopt.
15. Mijn leidinggevende besluit samen met mij wat mijn prestatiedoelen zijn.
16. Mijn leidinggevende en ik werken samen om te kiezen wat mijn prestatiedoelen moeten zijn.
17. Mijn leidinggevende en ik gaan samen om de tafel om overeenstemming te krijgen over mijn prestatiedoelen.
18. Mijn leidinggevende werkt met mij samen om mijn prestatiedoelen te ontwikkelen.

Scale 2: Translated Scale Measuring Psychological Safety (Gravin et al., 2008)

De volgende vragen gaan over samenwerking met uw leidinggevende.

Geef alstublieft aan in hoeverre u het eens bent met de stellingen.

[1 Helemaal mee oneens; 7 Helemaal mee eens; 4 niet mee eens, niet mee oneens]

1. In de samenwerking met mijn leidinggevende is het gemakkelijk om mij uit te spreken en mijn mening te geven.
2. Als ik een fout maak in de samenwerking met mijn leidinggevende, wordt dat tegen mij gebruikt.*
3. In de samenwerking met mijn leidinggevende, praat ik meestal gemakkelijk met hem/haar over problemen en meningsverschillen.
4. In de samenwerking met mijn leidinggevende wil ik graag informatie delen over wat wel en niet werkt.
5. ‘Je kaarten dichtbij je houden’ is de beste manier om vooruit te komen in de samenwerking met mijn leidinggevende. *

Scale 3: Translated Scale Measuring Performance (Van der Vegt & Bunderson, 2005)

De volgende vragen gaan over uw medewerker.

[1=zeer slechte prestatie, 7=zeer goede prestatie]

Hoe scoort *uw medewerker* op…:

1. … het bereiken van doelen?
2. … het behalen van deadlines?
3. … werksnelheid?
4. … de kwaliteit van het werk?
5. … productiviteit?
6. … effectiviteit?

Scale 4: Translated Scale Measuring Performance (Williams & Anderson, 1991)

De volgende vragen gaan over uw medewerker.

Geef alstublieft aan in hoeverre u het eens bent met de stellingen.

[1 Helemaal mee oneens; 7 Helemaal mee eens; 4 niet mee eens, niet mee oneens]

Mijn medewerker:……

1. Voert de opgedragen taken naar behoren uit
2. Voldoet aan de verantwoordelijkheden vermeld in de functiebeschrijving
3. Voert de taken uit die van hem/haar verwacht worden
4. Voldoet aan de formele prestatie-eisen van de functie
5. Houdt zich/haar bezig met activiteiten die rechtstreeks van invloed zijn op zijn/haar prestatiebeoordeling
6. Verwaarloost aspecten van het werk dat hij/zij verplicht is uit te voeren
7. Faalt in het uitvoeren van essentiële taken
8. Helpt anderen die afwezig zijn geweest
9. Helpt anderen die een zware werklast hebben
10. Assisteert mij bij mijn werkzaamheden (wanneer niet gevraagd)
11. Neemt de tijd om te luisteren naar problemen en zorgen van collega's
12. Doet zijn/haar uiterste best om nieuwe medewerkers te helpen

13. Heeft persoonlijke belangstelling voor andere werknemers
14. Geeft informatie door aan collega's
15. Aanwezigheid op werk is boven de norm
16. Geeft van te voren aan wanneer hij/zij niet kan komen werken
17. Neemt te veel werkpauzes
18. Besteed veel tijd aan persoonlijke telefoongesprekken
19. Klaagt over onbelangrijke dingen op het werk
20. Bewaart en beschermt eigendommen van de organisatie
21. Houdt zich aan informele regels die zijn opgesteld om de orde te handhaven

Appendix B - Regression Assumptions

Figure 1

Linearity Assumption Check

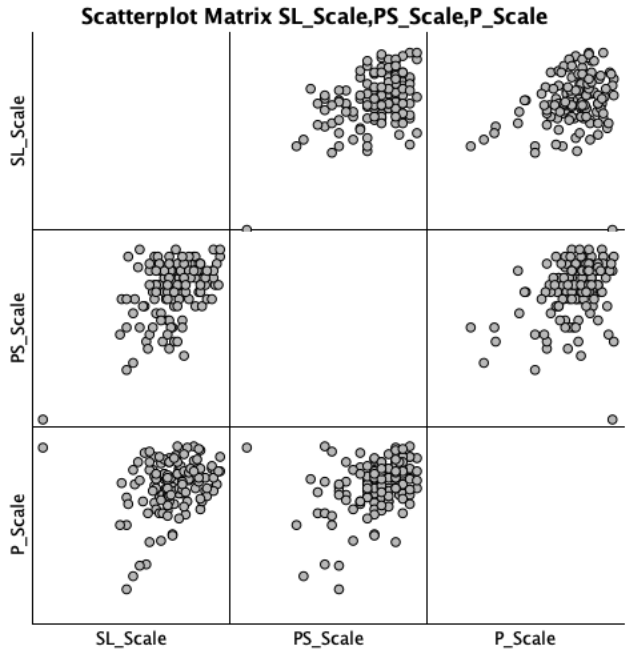


Figure 2

Q-Q Plot Indicating Normality of Standardized Residuals

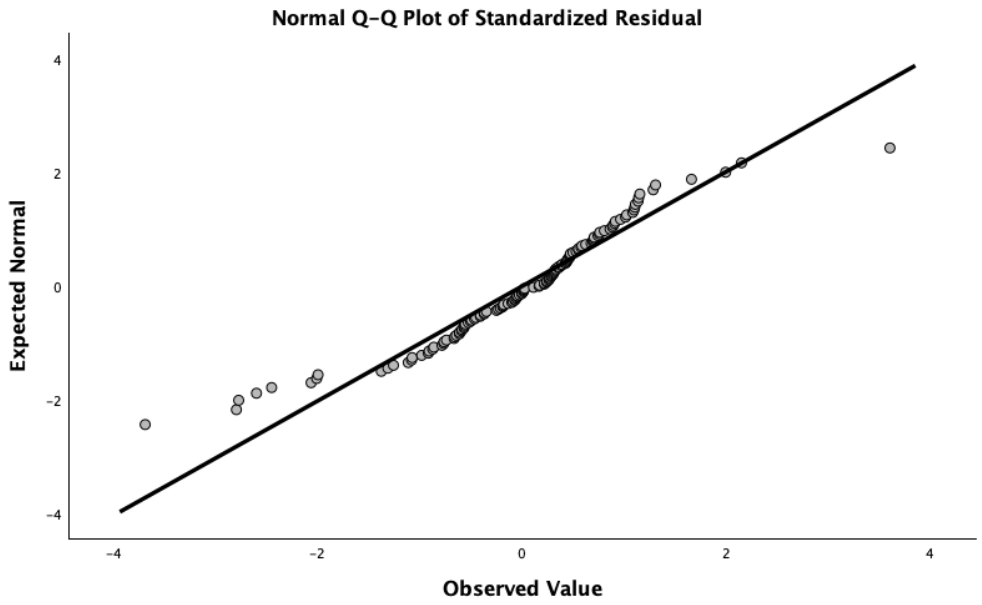


Figure 3

Histogram Indicating Normality of Standardized Residuals

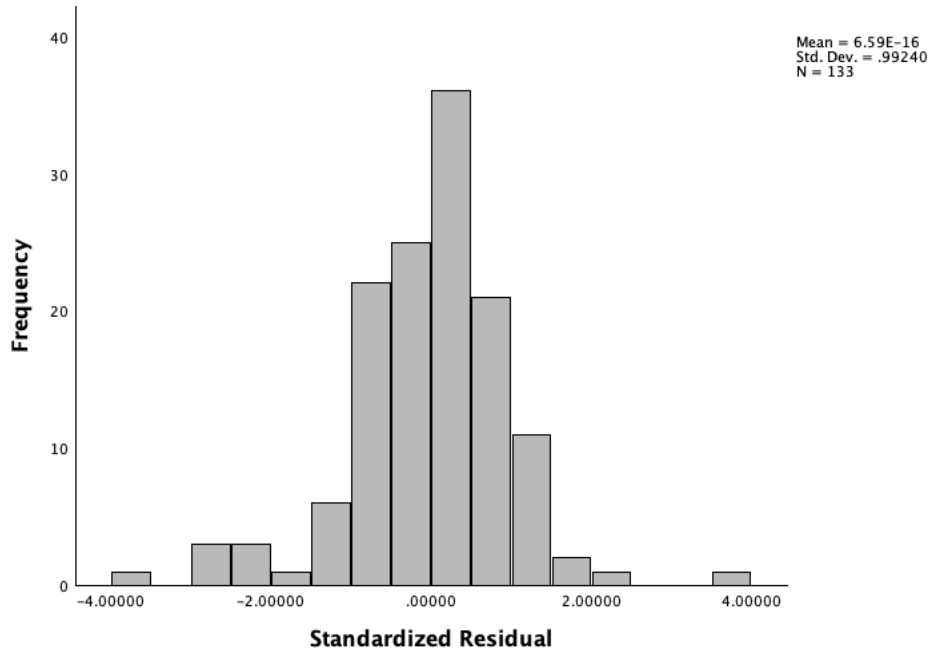
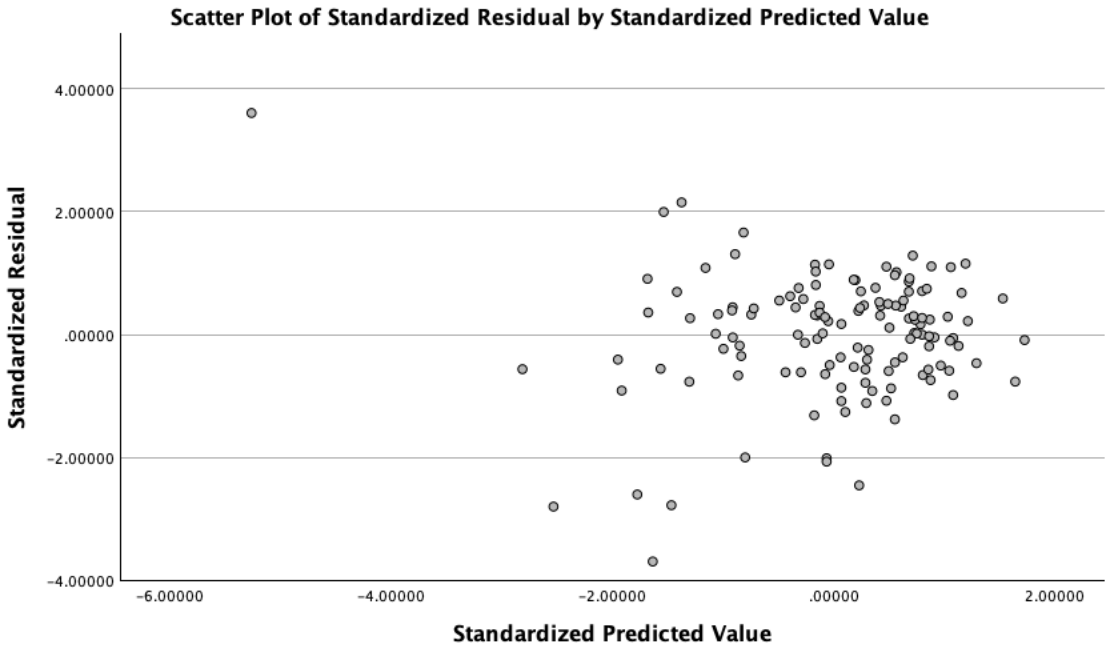


Figure 4

Scatterplot Indicating Homoscedasticity



Appendix C - Regression Outputs

Table 3

Normality Tests for Residuals

	Variable	Statistic	Sig.
Kolmogorov-Smirnov [a]	Unstandardized Residual	.084	.023
Shapiro-Wilk	Unstandardized Residual	.945	<.001

Note. [a] Lilliefors Significance Correction

Table 4

Residual Statistics for Outlier and Influence Assessment [a]

	N	M	SD	Min.	Max.
Std. Residual	133	.00	.99	-3.69	3.61
Cook's Distance	133	.022	.161	.00	1.841
Centered Leverage Value	133	.015	.023	.00	.236

Note. [a] Dependent Variable: P_Scale