The Influence of Shared Leadership in the Workplace

Isis Reits

s4243501

Department of Psychology, University of Groningen

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Supervisor: drs. Roxana Bucur

Second evaluator: dr. Oliver Weigelt

In collaboration with: Thirza van den Noort, Bruno Winkler, Priya Reddy and Laura Zurbel.

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Abstract

In this one wave multi source field study, we examined the relationship between shared leadership and performance, and examined if psychological safety has an effect on this relationship. Building on existing literature, we predicted that the relationship between shared leadership and performance is moderated by psychological safety. We examined these relationships with a multiple regression analysis. We collected data using a convenience sample (N=99), resulting in 99 dyadic pairs of leaders and employees. Results of this study show that there is no significant relationship between shared leadership and performance, and that psychological safety is not a significant moderator of this relationship. The results of our study do not align with existing literature. However, the current research findings do contribute to existing literature by examining this relationship using a different definition of shared leadership. For future research, it would be interesting as well as informative to add variables to this model, such as personality traits.

Keywords: shared leadership, performance, psychological safety

The Influence of Shared Leadership in the Workplace

Typically, we view leadership in work environments as one individual holding a higher position than others, assigning responsibilities and providing feedback to employees. Recently, this standard view of leadership has changed and with that the topic of leadership has grown more popular, as well as the research on this topic. This includes research about the outcomes of certain leadership styles, for example how a certain type of leadership affects job performance. A leader, with a certain leadership style, affects their employees and this influences how they feel and perform at work. The leader could encourage a work environment where everyone feels free to share their opinions on decisions, or they could ask their employees to stick to their own tasks, and not involve them in any responsibilities that are important for creating a better work environment, for example by making decisions together that affect everyone in the workplace.

Of course, employees working hard and doing their job well is crucial for companies, as it directly impacts customer satisfaction and success of the company. The other way around, performance depends on many factors as well, including effective leadership, talented employees and innovation. There is a positive relationship between shared leadership and performance, indicating that sharing tasks, responsibilities and decision-making with employees enhances performance (Valinna et al., 2022). Shared leadership has been found to have a positive effect on multiple aspects in the workplace, for example team creativity (Klasmeier & Roswold, 2020). Shared leadership was defined by Pearce and Conger (2003), as 'a dynamic interactive influence process among individuals in groups for which the objective is to lead one another to the achievement of group or organizational goals or both'.

High performance leads to success and profits of companies, and also improves an individual's satisfaction with their job (Pugno, 2009). Because of the importance of this factor, it

is necessary to use a well-established definition for performance. Throughout many studies there are multiple possible definitions, but the most fitting is the one of Motowidlo (2013). In his chapter, performance is defined as the total value an organization expects from the actions and behaviors of an individual over a specific period of time. As this definition has a focus on both the actions and behavior of an employee, it is a well thought out definition that fits well with our research. Because of the many different factors that influence, and are influenced by performance, there is a lot of research to find about performance. When investigating job performance, it is important to gain detailed answers and information on various aspects when inquiring about a certain individual's performance. For instance, by examining multiple types of performance, such as performance of organizational citizenship behaviors with a specific individual as target (OCBI). OCBI entails behavior that directly benefits other individuals (e.g. colleagues) and as a result of this, also indirectly benefits the organization. An example of OCBI is when an employee offers unsolicited help to colleagues with tasks. (Williams, & Anderson, 1991).

Whether leaders evaluate their employees positively may depend on their values or leadership style. A leadership style is defined by the attitudes that a leader has and the behaviors that a leader shows (Anderson & Sun, 2017). There are multiple possible leadership styles, and with every style different behavior and manners are shown by the leader. In the article of Choi et al. (2017) multiple leadership styles and how they influence team effectiveness were investigated. They examined transformational leadership, which is a leadership style where a leader helps employees to improve their performance by helping them and allowing them to change their values and norms. Choi et al. examined shared leadership as well, a leader with this leadership style allows employees to include them in the decision-making process and share

responsibilities. In the study of Choi et al., the level of shared leadership was measured between team members (e.g. shared responsibilities and decision-making). Another approach that provides us with possibly more reliable results would be a dyadic approach, where the variables would be measured in pairs of two individuals, an employee and a leader for example. A dyadic approach would benefit studies on leadership styles and how this affects certain outcomes, such as performance. Dyadic research is relatively rare, but it provides us with informative results as it provides a more complete image of the relationship between a leader and follower. With this study, we are using a dyadic approach to gain information from both a leader and follower, and their perceptions on the relationship. The leader will answer questions about the follower's performance and the follower will report about the level of shared leadership shown by the leader. Both leader and follower will report on the amount of perceived psychological safety at work. This approach provides us with detailed information on how the leader and follower rate specifically each other.

As of right now, a lot of existing research focusing on which factors influence performance focus on factors such as training and education, is also mainly focused on how to improve training so that the employees will perform better. However, performance does not only depend on education and a well-constructed training. In an earlier study it was found that psychological empowerment correlated positively with job performance, meaning that if employees feel as if they have high levels of autonomy and self-efficacy at work, they perform better (Sun, 2016). These results show us that there are not only physical factors that contribute to performance, but that psychological factors are definitely important as well. An important psychological factor that improves job performance is psychological safety (given that employees report high levels of psychological safety). High levels of psychological safety

indicate that employees are not afraid to be belittled when they ask naive questions, make mistakes or disagree with colleagues or leaders. Employees feel secure sharing their thoughts and opinions at work. (Garvin et al., 2008). Psychological safety has positive effects on team effectiveness, learning, and on performance. Leaders and leadership styles play an important role in the reported level of psychological safety in employees, for example by supporting employees and involving them in making decisions. Asking employees for their input has both direct and indirect positive effects on a work environment and team climate. (McKinsey, 2023).

With this study, we aim to gain insight into the relationship between shared leadership and performance in work environments in the Netherlands and into the possible moderating effect of psychological safety in this relationship. As mentioned above, psychological safety is important in work environments, as it improves job performance.

As of right now, most studies focusing on improving performance focus on designing and enhancing training for employees. We want to add to the existing research with new insights by focusing on the level of psychological safety in workplaces and the influence this has on the relationship between shared leadership and performance. We expect that psychological safety will be a moderator for this relationship, meaning that when there are high levels of psychological safety at work, the relationship between shared leadership and performance will be stronger. Shared leadership includes sharing tasks with followers, and it would be helpful if followers feel free to communicate more openly, so that they can actually participate in the shared leadership and do not only do as the leader says. The same goes for making decisions, when a leader shares decision-making with a follower, it would be helpful if the follower actually feels free to share their opinions on what kind of decision should be made. High levels of psychological safety ensure that employees do not feel afraid to share these opinions.

Most studies that focus on the relationship between leadership style and performance do not use a dyadic approach, and in studies focusing on shared leadership, shared leadership is measured throughout the whole team. This means that all team members share certain tasks and responsibilities. We are interested in finding out how much a leader shares their tasks with a follower. With this study, we hope to gain more insight in the level of shared leadership between one leader and one follower, so that we can actually investigate the leadership style of the leader, instead of examining team collaboration.

Theory and Hypothesis Development

Shared Leadership between Leader and Employee

Recently, the topic of leadership styles has become more popular in research. Before, leadership was seen as a leader who gives instructions and commands to employees, and it was not really common for leaders to ask their followers for help. This can be defined as directive leadership (Pearce et al., 2002). However, right now, many leaders show a different style in working with their employees. Easton and Steyn (2023) described three more leadership styles: transactional leadership, transformational leadership and empowering leadership. Transactional leaders motivate their employees by rewarding and praising them for their finished tasks. Transformational leaders encourage employees to perform better and ask employees for help in making decisions. Empowering leadership is when employees are more independent, but still supported by their leader in making decisions and being creative in the workplace. These definitions show that there are still multiple leadership styles in the work environment.

Hoch et al. (2013) described shared leadership using multiple research papers and examined the best way to measure shared leadership. In this study, the researchers combined two definitions of shared leadership: shared leadership is an internal, informal team leadership and

requires the distribution of leadership influence across different individuals. Shared leadership mostly consists of establishing goals, planning work, training team members and providing feedback (Morgeson et al., 2009), although these activities are usually not distributed through the whole team, possibly because certain leadership tasks cannot be shared with followers (Drescher et al., 2014).

In our current study we use this definition of shared leadership with one adjustment; we use this concept between one leader and one follower, instead of between multiple team members. As we have seen in previous research, shared leadership does have a positive influence on multiple variables in work settings, such as performance and team creativity, and until now, has been measured mostly in a different way than in this study.

Shared Leadership and Employee Performance

As we have seen in previous literature, shared leadership often has positive effects on organizations, for example by positively influencing organizational performance (Barnett, 2016). Shared leadership has also been found to be a predictor of team performance, rated by clients (people who use the team's work) (Carson et al., 2007), which would mean that if a leader displays this type of leadership, the whole team would perform better and this improved performance is also noticed by individuals outside of the work environment. Another study examined the relationship between shared leadership and group performance: Drescher et al. (2014) found that positive change in shared leadership is associated with positive change in group performance. Because of the existing literature confirming this relationship, we expect to find a positive relationship between shared leadership and performance in this current study. We aim to add to the existing literature by measuring the relationship between shared leadership and

individual performance, which has not been researched much before, as most literature is based on team performance.

        H1: Shared leadership is positively related to performance.

Psychological Safety and Performance

        Psychological safety is important for employees to express themselves, to feel free to disagree with others, but it is also an important factor for employees to perform at their best, as it enhances team effectiveness and efficacy (Kim et al., 2020). It is possible for leaders to improve the level of psychological safety in the workplace, for example by developing open-dialogue skills so that leaders and employees can communicate openly, or by developing a sort of sponsorship for each other - when colleagues support each other to reach further success (McKinsey, 2023). When followers feel free to share their opinions about certain topics or decisions with their leader, the leader receives feedback, which could lead to better results. It is important to critically discuss end products or opinions when important decisions have to be made, because by hearing multiple perspectives it could lead to greater insights and possibly also even better decisions. It is also important for leaders to feel as if they are psychologically safe at work, for example when delivering bad news or when sharing new ideas with followers. When leaders feel like they can discuss all opinions and responsibilities freely with their followers will probably achieve better results, because all is clear and honest. Because of the ideas stated above, we expect to find a positive relationship between psychological safety and performance, as psychological safety allows workers to feel free to share opinions, ideas, and to disagree with others. We believe that this is important for reaching success, as it allows individuals to share anything with colleagues and not agreeing with everything immediately. This causes individuals to think deeper about information, which we expect will lead to better performance.

H2: Psychological safety is positively related to performance.

Psychological Safety as a Moderator

In a large part of research that has been done on job performance and how it can be improved, the focus is on the leadership style in the workplace or how well employees finish their tasks. The factor psychological safety has not been researched much before in this context.

In an earlier literature review, it is described that psychological safety indirectly improves performance, when employees are not afraid to ask questions and share their opinions it helps their learning process (Newman et al., 2017). It has also been found that if there is a positive team environment where employees provide emotional and psychological strength to each other, there are more opportunities for shared leadership (Daspit et al., 2013). A theory that supports these relationships as well is the leader-member exchange theory by Dansereau et al. (1976). This theory suggests that leaders develop a unique relationship with each follower (Stepanek & Paul, 2022) and that the quality of this relationship may predict outcomes on individual, group and organizational levels (Gerstner & Day, 1997). It has been found that high quality relationships between leaders and followers are positively related to performance ratings, indicating that when a leader and follower have a good relationship (e.g. trust each other, satisfaction with leader), the leader rates the follower's performance higher (Gerstner & Day, 1997).

This shows us that psychological safety may indeed improve performance. It also creates environments where shared leadership would benefit the work environment, as employees feel safe disagreeing and asking questions. This indicated that the variable psychological safety has a positive influence on both performance and shared leadership. In this current study, we expect to find psychological safety as a moderating variable for the relationship between shared leadership

and performance. We expect that when employees feel safe and are not ashamed to disagree and express their opinions, there will be much more conversation about important topics in the organization, which will probably lead to decisions that are more thought-through. When there is also a high level of shared leadership, it means that the leader is sharing responsibilities and tasks with their employee. In this case, it is especially important for the employee to feel free sharing opinions and disagreeing, because they share tasks and decisions with their leader. If an employee were to feel uncomfortable with disagreeing or asking questions, it could lead to a failed shared leadership. The leader would make most of the decisions and maybe even make mistakes, because the employee is afraid to speak up to them.

When there are high levels of psychological safety, the employee and leader work together on the shared tasks and responsibilities, and they share their knowledge, which would probably result in better outcomes and fewer mistakes. This is why we expect that the positive relationship between shared leadership and performance is stronger when psychological safety is high.

H3: Psychological safety is moderating the relationship between shared leadership and performance, in such a way that the positive relationship is stronger when psychological safety is high.

Methods

Participants

For this study, we gathered information from 235 leaders and 243 employees, resulting in 478 participants. We removed 136 leaders and 143 employees from our dataset for mainly three reasons; we were either not able to complete the dyad, e.g. only the employee filled out the questionnaire; the participant worked less than 16 paid hours per week; or the participant did not

fill out at least two subsections in the questionnaire. Our sample size is accordingly N = 99 leaders and N = 100 employees, which will be used for describing the demographic data of the participants. We recruited Dutch speaking participants from Dutch organizations, which was a requirement to participate, as well as working 16 paid hours a week at said company. In the leader sample, 59,6% were male, 38,4% were female and the mean age was 42 years. From the employee sample, 41% were male and 59% were female, the mean age was 33 years.

Most participants (37,5%) were active at a small organization (< 50 employees), roughly 35,5% of the participants were active at a large organization (> 250 employees) and around 24% were working at a moderately-sized organization (50-250 employees). Most employees (27,4%) stated that they work together with 3-5 other employees and 28,3% indicated working with different amounts of colleagues (mostly 10-15 employees). The average number of followers per leader was 17,45. Most of the participants worked in healthcare (N = 12), construction (N = 10) or retail (N = 8).

Design and Procedure

Our study is a one-wave, multi-source field study. Leaders and followers were approached by the researchers and asked to fill out a questionnaire. We sent out an online link that led to a questionnaire with a matching component in it, to create the dyads for generating our results. Before the participants answered the questions, they were given a briefing about our study, in which we explained the main subjects and goals of our study. Participation was voluntary and confidentiality was assured. All participants gave their consent for their data to be used for our study.

For the design of the study, we used a dyadic approach, meaning that the leaders and followers that participated in the study were asked to answer the questions about each other. To

ensure that dyads were complete, we asked participants to create a code including the last 2 letters of the leader's surname and the last 2 letters of the employee's surname. Only complete dyads were included in the analysis. Leaders and followers received different questionnaires, as we were interested in different variables depending on who was filling out the questionnaire. The questionnaire that was sent out to leaders mainly included questions about their employee, for example about their performance, and also questions that focused on the workplace itself, e.g. if their workplace is a safe place to share opinions.

The questionnaire that employees received included mostly questions about their leader, measuring shared leadership for example, and it also included questions about their workplace. The questionnaire took about 10 minutes to fill out, and at the end of the questionnaire the participants had the opportunity to ask questions or make a comment about the study or questionnaire. The researchers also made sure that if participants were interested in the results of the study, they could receive information containing the results when the research was finished.

The questions from the different scales used to measure the three variables were translated from English to Dutch to ensure that the participants understood what was being asked of them. The questionnaires have also been modified to fit our dyadic relationship of leader and employee, meaning that all the questions inquired information about one person. All the items are included in the appendix, in both English and Dutch.

Measures

Shared Leadership (Independent Variable)

Shared leadership was answered by employees. We adapted the shared leadership scale of Hoch et al. (2013) to measure the level of shared leadership that their leader displayed at their current job in the leader -employee dyad This scale uses 18 items, and the answers were given on

a Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). A higher score shows that the leader shows shared leadership, where they encourage followers to participate and help to develop a sense of self-reward. The first six items measured the level of transformational leadership, which shows how much a leader motivates followers and encourages them to focus further than only self-interest and also focus on team and organizational goals. This subscale contained questions such as 'my leader encourages me to do more than what is expected of me (such as extra effort)'. The next items, from seven to fourteen, measured the level of individual empowering leadership. Individual empowering leadership is high when leaders help their followers to develop their self-management skills, their opportunity-thinking or their self-reward. An example of a question from this subscale is 'my leader encourages me to give myself a pat on the back when I finish a challenge'. The last four items in this scale, from fifteen to eighteen, measured participative leadership, which is high when leaders ask followers to delegate tasks to team members and try to develop shared leadership with other team members (Hoch et al., 2013). This subscale contained questions such as 'my leader and me decide together what my achievement goals are.' The scale was reliable with a Cronbach's alpha score of .715, which indicates a moderate reliability of this scale.

Psychological Safety (Moderator)

Psychological safety was answered by both the leaders and followers about the perceived psychological safety at their current job. This scale contained five items and measured if the participants fear being belittled or marginalized when they disagree with others (coworkers, leaders), ask naive questions, support an unpopular opinion or own up to their mistakes. For this scale, we used items developed for measuring psychological safety in a survey from Garvin et al. (2008). Both leaders and followers answered these items in the questionnaire, and they answered

the items about the other. To obtain a score of mutually perceived psychological safety, we averaged the level of psychological safety provided by the leader, as well as the level provided by the employee. Then, these two means were averaged to create one value per dyad of mutually perceived psychological safety. The participants could rate statements from 1 (completely disagree) to 7 (completely agree), and where a 4 meant the participant did not agree nor disagree. A higher score means that there is a high level of psychological safety in the work environment, except for two items, which were opposite statements (such as 'when I make a mistake in collaborating with my colleague, it will be used against me'). An example of one of the other three items is 'in collaborating with my colleague, I find it easy to express myself and give my opinion'. Cronbach's alpha for this scale was .719 for the employees' questionnaire, and .587 for the leader's questionnaire, especially the reliability for the psychological safety scale in the leader's questionnaire is not a high value, but both values do indicate a moderate reliability.

Performance (Dependent Variable)

Performance was answered by the leaders regarding the follower's performance at the current organization. To measure this variable, we adapted the scale from Williams, & Anderson (1991), which contains 21 items. The leader could answer the questions on a Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). A higher score indicates that the leader rates their followers' performance high. This scale measured three types of performance: performance of in-role behavior (IRB), performance of organizational citizenship behaviors with a specific individual as target (OCBI) and performance of organizational citizenship behaviors that focus primarily on benefiting the organization (OCBO). The first seven items measured IRB, which measure to which extent employees act as they are supposed to (e.g. follow rules and obligations, complete assignments on time, fits with the job description), it does not contain extra

work/efforts that the employee delivers. In our questionnaire, we included items from this scale such as 'my employee fulfills the tasks that are expected of them'. The next seven items, from eight to fourteen measured OCBI, which measures behaviors that immediately benefit specific individuals and through this also indirectly benefit the organization. These items were listed in the questionnaire such as 'my employee takes the time to listen to worries and problems of other coworkers'. The last seven items measured OCBO, which show behaviors that benefit the organization in general. An example of an item from this scale would be 'my employee stores and protects properties of the organization'. The scale was reliable with a Cronbach's alpha score of .867, which indicates good reliability of the performance scale.

Results

To investigate the effect of shared leadership on performance and the moderating effect of psychological safety on the relationship between shared leadership and performance, we conducted a multiple regression analysis. To further examine the interaction effect of shared leadership and psychological safety on performance, we performed a simple slope analysis.

Descriptive Statistics

The descriptive statistics were calculated to analyze the means, standard deviations and correlations, which are provided in Table 1. The results show that employees generally rate their employer high on shared leadership, indicating that employees view the relationship with their leader as one characterized by shared leadership. The mean for performance shows that leaders mostly rate their employees' performance highly, and for the psychological safety variable, the mean indicates that both leaders and employees perceive their workplace as a place where they can discuss opinions and ask questions freely. Between these three variables, there were no significant correlations.

Table 1

Means, Standard Deviations and Correlations Between Variables

Variable	Mean	SD	1.	2.	3.
1. Shared Leadership	5.58	.52			
2. Performance	5.87	.77	.007		
3. Psychological Safety	5.22	.53	.142	.115	

*Note: N = 95, *p < .05*

Regression Assumptions

Before checking the assumptions for our regression analysis, we inspected for outliers. We found that there was one data point with a Cook's Distance value of $D = 2.44$. As $N = 96$, this data point was considered significantly influential and removed from the dataset, leading to a sample size of $N = 95$.

The assumption of normality was evaluated by examining a histogram of standardized residuals, computed by SPSS (Figure 1). This assumption is satisfied. We examined the assumption of linearity by creating a scatterplot in SPSS (Figure 2). This did not show a noticeable pattern, meaning that this assumption is met as well. The assumption of homoscedasticity was checked by inspecting a residual-by-predicted variable scatterplot, computed by SPSS. As shown in Figure 3, this plot does not show a discernible pattern around $y = 0$. The assumption of homoscedasticity is satisfied. Lastly, we checked for the assumption of multicollinearity, which was not violated as the variance inflation factors (VIF) were below 4.0 ($VIF = 1.021$). All necessary assumptions are met, which leads us to calculating and discussing the results.

Hypothesis Testing

The results of the multiple regression analysis show a model fit of $F(3, 89) = .555$, $p <$ .646, $R^2 = .018$, including both predictor and the interaction variable. The total model explains approximately 1,8% of total variance in employee performance. The first hypothesis predicts that shared leadership is positively related to performance. As shown in Table 2, shared leadership is not a significant predictor of performance, meaning that hypothesis 1 is not supported. Hypothesis 2 states that psychological safety predicts performance. Judging by the results shown in Table 2, the psychological safety variable is not statistically significant, indicating that psychological safety does not predict employee performance. Thus, hypothesis 2 is not supported. Hypothesis 3 predicts that psychological safety moderates the relationship between shared leadership and performance, in such a way that this positive relationship is stronger when psychological safety is high. The interaction between shared leadership and psychological safety is not significant, meaning that it does not predict or strengthen the relationship with performance, concluding that hypothesis 3 is not supported.

Table 2
Results of the Regression Analysis Predicting Performance. SL = Shared Leadership, PS = Psychological Safety.

Predictor	*B*	*SE*	*t*	*p*
Constant	4.96	1.13	4.41	<.001**
Shared Leadership (SL)	-.016	.158	-0.99	.921
Psychological Safety (PS)	.187	.157	.128	.237

| Interaction | .048 | .070 | .686 | .495 |
| SLxPS | | | | |

Note: N = 95, *p < .05, **p < .01

Discussion

Previous research has shown that shared leadership influences multiple aspects in the workplace positively, such as team creativity, individual performance and team performance. We found a few gaps in the existing literature. First, most articles define shared leadership as a certain leadership style where tasks and responsibilities are shared throughout a whole team, the whole team takes responsibility for the leader-tasks and there is no clear boundary between leader and follower. We have filled this gap by using a slightly different definition of shared leadership. In our research, we defined shared leadership as a relationship between a leader and one follower, a dyadic relationship, where the leader shares these tasks and responsibilities with their follower. We measured the level of shared leadership by allowing the followers to rate the level of shared leadership from their leader. Second, in most existing research, it is measured how shared leadership influences team performance instead of individual performance. As we used a dyadic approach in our research, we assessed the effects of shared leadership on individual performance (of the follower).

Interpretation of Results

Drawing from previous literature, three hypotheses were conducted to predict the relationship between shared leadership, performance and psychological safety. Hypothesis 1 predicted that shared leadership is positively related to performance. This hypothesis was not supported by the results, as this relationship was not significant. Hypothesis 2 stated that psychological safety is positively related to performance, which was also not supported. Lastly,

hypothesis 3 predicts that psychological safety moderates the relationship between shared leadership and performance, in such a way that this positive relationship is stronger when psychological safety is high. This hypothesis was not supported. These findings contradict existing literature, which often shows a positive relationship between these two variables.

Implications

Theoretical Implications

As mentioned above, the findings of this study are not supported by existing literature. Multiple studies show a positive relationship between shared leadership and performance, as well as a positive relationship between psychological safety and performance. A possible explanation for this difference is the different definition of shared leadership used in our study. Most previous findings use a definition which measures shared leadership where it is distributed across a whole team, for instance in the findings of Carson et al., 2007, where shared leadership was found to be a predictor of team performance. This points to the second difference between our study and the literature, most research measures team performance instead of (individual) employee performance. It could be that shared leadership through a team, or performance measured of a team, or a combination of both, create different effects which lead to different outcomes.

It was also hypothesized that psychological safety moderates the relationship between shared leadership and performance, in a way that this positive relationship is stronger when psychological safety is high. This prediction has been supported by multiple previous studies, which is why it was unexpected that this study would obtain different results. A possible explanation for this difference is that an averaged mean score of psychological safety was used, not individually measured and analyzed from leader and employee. This could mean that leaders

and employees perceive the psychological safety very dissimilar. However, this is not shown in our results. In the literature review of Newman et al. (2017), it was found that there are team-level differences of psychological safety, and that psychological safety leads to different outcomes on different levels (at individual level, team level, organizational level). The meta-analytic review of Frazier et al. (2017) found that psychological safety is positively related to task performance on all mentioned levels, however, they did emphasize the need for multi-level approaches to investigate psychological safety.

According to the leader-member exchange theory, leaders develop a unique relationship with each follower, and the quality of this relationship influences several outcomes on individual, group and organizational levels (Dansereau et al., 1976; Gerstner & Day, 1997). These studies indicate that a positive relationship between leader and follower has positive influences on job performance, job satisfaction and organizational commitment. This relationship and the quality of it are measured by the Leader Member Exchange 7 questionnaire (LMX-7), which contains questions similar to how psychological safety was measured in this study. An example of a question is 'My supervisor would defend me against others if I made an honest mistake'. If answered positively, it indicates that employees are not afraid of the consequences of making mistakes, resembling the concept of psychological safety. (Stepanek & Paul, 2022). Combining the results of the LMX-7 questionnaire with the results of the psychological safety questionnaire by Garvin et al. (2008) for the employee level could provide us with more reliable information and different results in the future.

Practical Implications

Our study contributes to existing literature by taking a relatively new approach to measuring shared leadership and psychological safety. Namely, a dyadic approach was used to

measure these two variables. This approach ensures that the given answers apply to one specific person as opposed to a team and allows us to investigate the dynamics of the relationship between leader and follower. Although existing literature mainly shows positive relationships, it is important to realize that our study, with a dyadic approach and different definition of shared leadership, does not show these results. It may be helpful to investigate the specific circumstances in which shared leadership could be the most effective, influencing employee performance positively. Additionally, it would be useful to examine these relationships once again using a bigger, more diverse sample, as it is possible that the relationships will be found there.

Strengths and Limitations

Although it may be possible that the different definition of shared leadership has caused our results to be different from existing research, it should be considered as a strength in our study. Our definition of shared leadership has not been used much in previous studies, which means that this type of dyadic relationship is relatively new to the organizational research field, thus could add to the existing literature.

A limitation of this study is that it was more difficult to find individuals willing to participate, because it was also necessary for their leader or employee to fill out the questionnaire. In terms of design, we needed dyadic data, which is a strength for existing research and the unique results, but it did not help for the data-collection process. A possible suggestion for future research is that participants get a reward for participating (e.g. a gift card), as it may make the process (filling out a questionnaire and also asking someone else to do this) more worthwhile. In future research, it would also be a good idea to extend the time of data collection as it was difficult to find dyads willing to participate. Another benefit for the

generalizability of the results would be to collect data from a more diverse population, instead of (mostly) participants who know the researchers and work in the same organizations as the researcher.

Another limitation of this study is that participants could be biased, as we noticed that not many leaders were willing to participate, this could indicate that the leaders who did participate either knew the researcher or had a positive relationship with their employee. This could be a reason the leader did participate if the employee had asked for it. This could lead to overly positive results, as the relationship between leader and follower is positive, it seems unlikely that the leader would rate the follower negatively.

Future Research

For future research on the effect of shared leadership on performance and psychological safety, it would be interesting to keep the psychological safety variable split up for leaders and employees. In our research this variable was combined from the leader and employee to obtain a score of mutually perceived psychological safety. However, it could be possible that an employee would rate it completely differently than the leader. For example, an employee could rate it at the lowest point and the leader at the highest, but because these scores were averaged and combined, we have not noticed this. It would be interesting to look further into the given answers on psychological safety and maybe explore the relationship with shared leadership (which is answered by the employee) to a greater extent.

Another idea for further research would be to include personality traits (the Big Five) in the study. It has been found that high extraversion and low agreeableness correlate most with authoritative leadership styles, a style where the leader sets clear expectations and makes decisions quickly. On the contrary, individuals who score high on agreeableness and openness

work most effectively in a democratic leadership style. This style includes collaboration, seeking conformity and input from team members, which is highly comparable to a shared leadership style. (Grover, 2024). Including a personality assessment in the research could yield interesting results by providing more information on how leaders interact with their employees, offering a deeper understanding of leadership styles, and exploring the relationship between shared leadership, personality traits, and perceived psychological safety (especially by the employee). This could reveal which personality traits foster a psychologically safe working environment and which do not.

Additionally, it would be intriguing to explore the relationship between a leader's personality traits, their leadership style, and employee performance, as previous research has also shown that personality traits have an impact on team performance (Martin et al., 2018). In the study of Martin et al., it was found that agreeableness is the strongest predictor of team performance, whereas openness to experience is the weakest predictor. Our study measures performance of a single employee, unlike the team performance mentioned in the article above. Further investigating this relationship between personality traits and employee performance to see if these effects occur in our specific research design would be interesting and a valuable addition to existing research.

Conclusion

We examined the relationship between shared leadership and performance, predicting that psychological safety moderates this relationship. The results show that shared leadership does not predict performance (H1), that psychological safety is not related to performance (H2) and that psychological safety does not influence the relationship between shared leadership and performance (H3). The lack of significance in the results may be explained by the different

definition of shared leadership, or the fact that performance was measured on an individual level. Our study contributes to existing literature by using a different definition of shared leadership, as well as using a dyadic approach which provides us with more information on the relationship between a leader and follower. It would be interesting to further investigate the relationship between this definition of shared leadership with other variables, perhaps in different demographics and larger sample sizes.

References

Anderson, M. H., & Sun, P. Y. (2017). Reviewing Leadership Styles: Overlaps and the Need for a New 'Full-Range' Theory. *International Journal Of Management Reviews* https://doi.org/10.1111/ijmr.12082

Barnett, R.C. & Weidenfeller, N.K. (2016). Shared Leadership and Team Performance. *Advances in Developing Human Resources: Current and Emerging Trends in Leadership Development: New Needs for New Leadership?* https://doi-org.proxy-ub.rug.nl/10.1177/1523422316645885

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/10.2307/20159921

Choi, S. B., Kim, K., & Kang, S. (2017). Effects of transformational and shared leadership styles on employees' perception of team effectiveness. *Social Behavior And Personality*, *45*(3), 377–386. https://doi.org/10.2224/sbp.5805

Dansereau, F., Graen, G., & Haga, W. J. (1975). A vertical dyad linkage approach to leadership within formal organizations. *Organizational Behavior And Human Performance*, *13*(1), 46–78. https://doi.org/10.1016/0030-5073(75)90005-7

Daspit J., Justice T. C., Boyd N. G., Mckee V. (2013). Cross-functional team effectiveness: An examination of internal team environment, shared leadership, and cohesion influences. *Team Performance Management: An International Journal*, 19, 34-56. https://doi.org/10.1108/13527591311312088

Drescher, M., 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

Easton, C., & Steyn, R. (2023). Millennial leaders and leadership styles displayed in the workplace. *South African Journal Of Business Management*, *54*(1). https://doi.org/10.4102/sajbm.v54i1.3139

Frazier, M. L., Fainshmidt, S., Klinger, R. L., Pezeshkan, A., & Vracheva, V. (2016). Psychological Safety: A Meta-Analytic Review and Extension. *Personnel Psychology*, *70*(1), 113–165. https://doi.org/10.1111/peps.12183

Garvin, D. A., Edmondson, A. C., & Gino, F. (2008b). Is yours a learning organization? *PubMed*, *86*(3), 109–116, 134. https://pubmed.ncbi.nlm.nih.gov/18411968

Gerstner, C. R., & Day, D. V. (1997). Meta-Analytic review of leader–member exchange theory: Correlates and construct issues. *Journal Of Applied Psychology*, *82*(6), 827–844. https://doi.org/10.1037/0021-9010.82.6.827

Grover, A., & Amit. (2024). The Big Five Personality Traits and Leadership: A Comprehensive Analysis. *International Journal For Multidisciplinary Research*, *6*(1). https://doi.org/10.36948/ijfmr.2024.v06i01.11820

Hoch, J. E. (2013). Shared Leadership and Innovation: The Role of Vertical Leadership and Employee Integrity. *Journal Of Business And Psychology*, *28*(2), 159–174. https://doi.org/10.1007/s10869-012-9273-6

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*. https://doi.org/10.3389/fpsyg.2020.01581

Klasmeier, K. N., & Rowold, J. (2020). A multilevel investigation of predictors and outcomes of

      shared leadership. *Journal Of Organizational Behavior*, *41*(9), 915–930.

      https://doi.org/10.1002/job.2477

Martin, J., Cormican, K., Sampaio, S. C., & Wu, Q. (2018). Shared leadership and team

      performance: An analysis of moderating factors. *Procedia Computer Science*, *138*, 671

      –679. https://doi.org/10.1016/j.procs.2018.10.089

McKinsey & Company. (2023). *What is psychological safety?*

      https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-psychological-

      safety#/

Morgeson, F. P., DeRue, D. S., & Karam, E. P. (2009). 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

Motowidlo, S.J (2003) Job Performance. Handbook of psychology: Industrial and organizational

      psychology, Vol. 12, pp 39-53

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

Pearce, C. L., & Conger, J. A. (2003). Shared Leadership: Reframing the Hows and Whys of

      Leadership. In *SAGE Publications, Inc. eBooks*. https://doi.org/10.4135/9781452229539

Pearce, C. L., & Sims, H. P. (2002). Vertical versus shared leadership as predictors of the

      effectiveness of change management teams: An examination of aversive, directive,

      transactional, transformational, and empowering leader behaviors. *Group Dynamics*,

      6(2), 172–197. https://doi.org/10.1037/1089-2699.6.2.172

Pugno, M. (2009). Job Performance and Job Satisfaction: An Integrated Survey. *Social Science Research Network*. https://doi.org/10.2139/ssrn.1402566

Salas-Vallina, A., Rofcanın, Y., & Heras, M. L. (2022). Building resilience and performance in turbulent times: The influence of shared leadership and passion at work across levels. *Business Research Quarterly*, *25*(1), 8–27. https://doi.org/10.1177/23409444211035138

Stepanek, S., & Paul, M. (2022, June 22). Umbrella summary: Leader-member exchange. Quality Improvement Center for Workforce Development. https://www.qic-wd.org/umbrella/leadermember-exchange

Sun, X. (2016). Psychological Empowerment on Job Performance—Mediating Effect of Job Satisfaction. *Psychology*, *07*(04), 584–590. https://doi.org/10.4236/psych.2016.74060

Williams, L. J., & Anderson, S. E. (1991). Job Satisfaction and Organizational Commitment as Predictors of Organizational Citizenship and In-Role Behaviors. *Journal Of Management* https://doi.org/10.1177/014920639101700305

Appendix A - Questionnaire Items

Measuring Shared Leadership (Hoch et al., 2013)

English (Translated) Version

The following questions are about your supervisor.

Please indicate the extent to which you agree with the statements.

[1 Strongly disagree; 7 Strongly agree; 4 Neither agree nor disagree]

1. My supervisor provides a clear picture of what our team stands for.

2. My supervisor is driven by higher goals or ideals.

3. My supervisor shows appreciation for my efforts.

4. My supervisor encourages me to reconsider ideas that have never been questioned before.

5. My supervisor uses many different perspectives to solve problems.

6. My supervisor encourages me to do more than just what is expected of me (e.g., extra effort).

7. My supervisor encourages me to find solutions to my own work problems.

8. My supervisor insists that I take responsibility for the work.

9. My supervisor encourages me to learn new things.

10. My supervisor encourages me to give myself a pat on the back when I have achieved a new challenge.

11. My supervisor encourages me to collaborate with other team members.

12.   My supervisor advises me to align my work with others who are part of the team.

13.   My supervisor insists that I work as a team with others who are part of the team.

14.   My supervisor expects the collaboration with other team members to go well.

15.   My supervisor decides together with me what my performance goals are.

16.   My supervisor and I work together to choose what my performance goals should be.

17.   My supervisor and I sit down together to reach an agreement on my performance goals.

18.   My supervisor works with me to develop my performance goals.

Measuring Psychological Safety - Leader Version (Garvin et al. 2008)

English (Translated) Version

The following questions are about collaboration with your employee.

Please indicate the extent to which you agree with the statements.

[1 Strongly disagree; 7 Strongly agree; 4 Neither agree nor disagree]

1.   In collaborating with my employee, it is easy for me to speak up and share my opinion.

2.   If I make a mistake in collaborating with my employee, it is used against me.*

3.   In collaborating with my employee, I usually find it easy to talk to him/her about

problems and disagreements.

4.   In collaborating with my employee, I am eager to share information about what does and

doesn't work.

5.   'Keeping your cards close to your chest' is the best way to get ahead in collaborating with my employee.*

Note: Statements marked with (*) indicate reverse-scored items

Measuring Psychological Safety - Employee Version (Garvin et al. 2008)

English (Translated) Version

The following questions are about collaboration with your supervisor.

Please indicate the extent to which you agree with the statements.

[1 Strongly disagree; 7 Strongly agree; 4 Neither agree nor disagree]

1.   In collaborating with my supervisor, it is easy for me to speak up and share my opinion.

2.   If I make a mistake in collaborating with my supervisor, it is used against me. *

3.   In collaborating with my supervisor, I usually find it easy to talk to him/her about problems and disagreements.

4.   In collaborating with my supervisor, I am eager to share information about what does and doesn't work.

5.   'Keeping your cards close to your chest' is the best way to get ahead in collaborating with my supervisor. *

Note: Statements marked with (*) indicate reverse-scored items.

Measuring Performance Williams, & Anderson (1991)

English (Translated) Version

The following questions are about your employee.

Please indicate the extent to which you agree with the statements.

[1 Strongly disagree; 7 Strongly agree; 4 Neither agree, nor disagree]

My employee…:

1.   Performs assigned tasks adequately

2.   Meets the responsibilities outlined in the job description

3.   Carries out tasks expected of him/her

4.   Meets the formal performance requirements of the position

5.   Engages in activities directly impacting his/her performance evaluation

6.   Neglects aspects of the work he/she is obligated to perform *

7.   Fails to perform essential tasks *

8.   Helps others who have been absent

9.   Assists others who have a heavy workload

10.   Assists me in my duties (when not asked)

11.   Takes time to listen to colleagues' problems and concerns

12.   Makes an effort to help new employees

13.   Shows personal interest in other employees

14.   Shares information with colleagues

15.   Attendance at work is above average

16.   Provides advance notice when unable to come to work

17.   Takes too many work breaks *

18.   Spends a lot of time on personal phone calls *

19.   Complains about trivial things at work *

20.   Preserves and protects organization property

21.   Adheres to informal rules established to maintain order

Note: Statements marked with (*) indicate reverse-scored items.

Measuring Shared Leadership (Hoch et al., 2013)

Dutch Version

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.

Measuring Psychological Safety - Leader Version

Dutch Version

De volgende vragen gaan over de samenwerking met 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]

1.   In de samenwerking met mijn medewerker is het gemakkelijk om mij uit te spreken en mijn mening te geven.

2.   Als ik een fout maak in de samenwerking met mijn medewerker, wordt dat tegen mij gebruikt. *

3.   In de samenwerking met mijn medewerker praat ik meestal gemakkelijk met hem/haar over problemen en meningsverschillen.

4.   In de samenwerking met mijn medewerker 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 medewerker. *

Note: Statements marked with (*) indicate reverse-scored items.

Measuring Psychological Safety - Employee Version

Dutch Version

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. *

Note: Statements marked with (*) indicate reverse-scored items.

Measuring Performance Williams, & Anderson (1991)

In Dutch

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

Note: Statements marked with (*) indicate reverse-scored items.

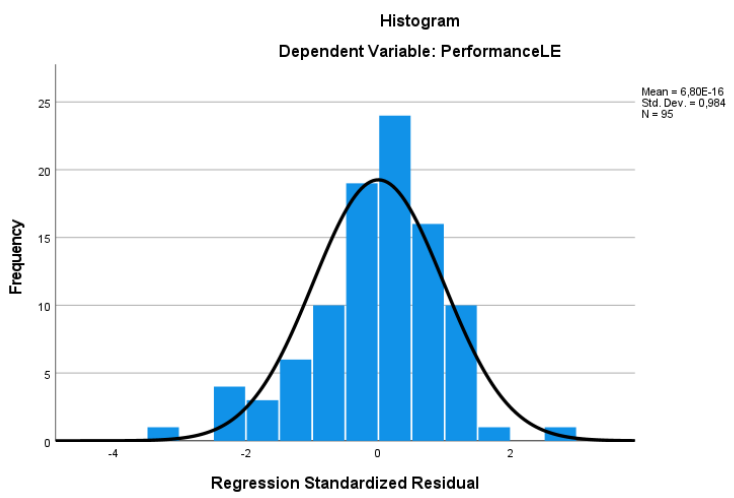**Appendix B - Regression Assumptions**

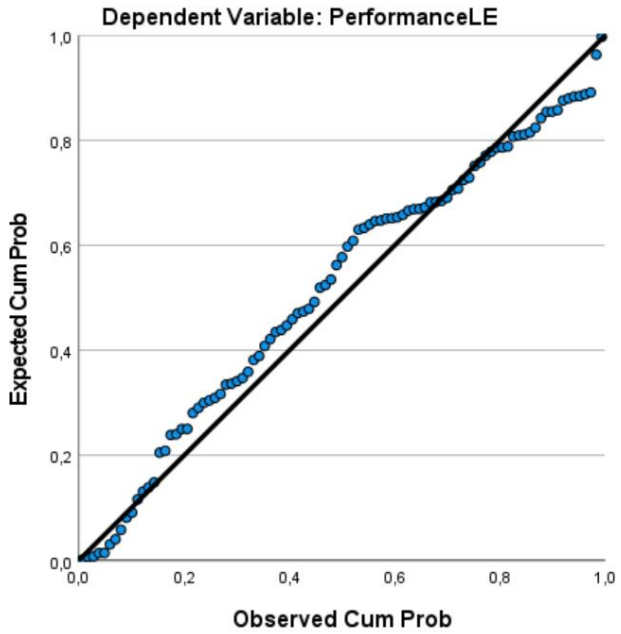**Figure 1**
Normality Assumption Check

Figure 2
Linearity Assumption Check

Figure 3

Homoscedasticity Assumption Check