When Does Shared Leadership Work? A Dyadic Investigation of Task Interdependence as a Moderator.

Megin van Riet

s4950690

Department of Psychology, University of Groningen

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Group number 01

Supervisor: Roxana Bucur, MSc

Second evaluator: Dr. A. Schmitt

In collaboration with: Keno Blum, Suske Huizinga, Pia Jantschitsch and Matthias Roth.

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Abstract

Traditional leadership is marked by an individual with formal authority over their subordinates, however increasingly more organisations recognize the value of shared leadership, where influence and decision making are distributed among team members. While shared leadership is often linked to increased performance, the conditions under which this effect is most pronounced remain unclear. Drawing on contingency theories of leadership, this research investigates whether task interdependence moderates the relationship between shared leadership and employee performance. More specifically in the context of Dutch organisations, which are characterized by a low power distance and collaborative work environment. Using a quantitative, cross-sectional survey design, data was collected from 130 leader-employee dyads, with employees rating shared leadership and task interdependence, and leaders rating employee performance and task interdependence. Results suggest that shared leadership is positively associated with employee performance, but only when employee-rated task interdependence is moderate to high. At lower levels, this relationship is not significant. Interestingly, employee-rated task interdependence negatively predicted performance, while leader-rated task interdependence was not a significant predictor or moderator. These findings cautiously suggest employees' perceptions of task interdependence are especially important in shaping the effectiveness of shared leadership, and suggest that organizations should consider these perceptions when implementing distributed leadership structures. By focusing on the dyadic level, this study extends shared leadership research that has mostly been conducted at the team level.

When Does Shared Leadership Work? A Dyadic Investigation of Task Interdependence as a Moderator.

Research on leadership has long focused on traditional leaders, individuals with formal responsibilities and power over their subordinates. However, in today's fast-paced and interconnected work environments, leadership is not always confined to a single individual at the top anymore. Rather, organizations increasingly recognize the power of shared leadership, where influence and decision making is distributed among team members (Pearce & Conger, 2003). Conventional views of leadership as hierarchical and top-down are being reconsidered as more participatory models of leadership are gaining traction. Recent studies challenge hierarchical leadership models by suggesting that shared-leadership may be associated with more positive team performance compared to traditional leadership (D'innocenzo et al., 2014; Wang et al., 2014; Nicolaides et al., 2014; Carson et al., 2007; Drescher et al., 2014). However, findings are not always consistent, raising the question of when and how shared leadership is most effective. Drawing on contingency approaches to leadership (Fiedler, 1967, Peters et al., 1985, Strube & Garcia, 1981), this study assumes that the effectiveness of shared leadership partly depends on the levels of task interdependence, which refers to the extent to which individuals rely on each other to complete their work (Van der Vegt et al., 2001). Various other situational factors have been identified in past research. For example, Nicolaides et al. (2014) found that longer team tenure may weaken the relationship between shared leadership and performance, while other studies point to contextual conditions such as psychological safety or team confidence. Although these studies offer valuable insights, many of them are situated at the team level and rely on aggregate data.

In fact, most of the existing literature on shared leadership has focused on teams rather than individuals, often using group-level averages to predict outcomes such as team performance, cohesion, or decision-making efficiency (Wang et al., 2014; Nicolaides et al.,

2014). While informative, this approach may overlook variation within individual leader–employee relationships. For instance, averaging performance ratings across an entire team could obscure how shared leadership functions within specific dyads. Researchers such as Gooty and Yammarino (2011) and DeRue et al. (2011) emphasize that leadership processes are frequently relational and unfold within dyadic exchanges. Examining shared leadership at the dyadic level therefore provides an opportunity to capture nuances that are otherwise lost in team-level analyses.

To address this gap, the present study investigates whether task interdependence moderates the relationship between shared leadership and employee performance in leader-employee dyads. In doing so, it seeks to clarify the contextual conditions under which shared leadership enhances or diminishes performance. This study also focuses on the Dutch context, which is known for its relatively flat organizational structures and low power distance (Hofstede, 2001). These characteristics may make Dutch organizations particularly fitting for shared leadership practices. By combining a dyadic perspective with contextual sensitivity, this study contributes to a more nuanced understanding of how shared leadership operates in real-world organizational settings.

Theory and Hypothesis

Shared leadership and performance

While shared leadership has mostly been studied at the team level, less is known about how it functions within specific leader-employee relationships. Shared leadership is defined as a collaborative approach in which multiple individuals within a team or organization share leadership responsibilities and authority, rather than these being held by a single appointed leader (Carson et al., 2007). Shared leadership has been widely studied for its potential positive association with performance outcomes in organizations, and existing literature supports this relationship (Carson et al., 2007; Wang et al., 2014; Nicolaides et al., 2014; D'Innocenzo et al.,

2014). Performance refers to the extent to which a team's output meets or exceeds established standards of efficiency, quality, productivity, mission fulfillment, and overall achievement (Van der Vegt & Bunderson, 2005). Naturally many have also tried to explain the mechanisms of action. Carson et al. (2007) theorized that shared leadership positively affects performance outcomes because it fosters collective responsibility, enhances decision making and leads to better decision making, all of which are related to increases in performance. Day et al. (2004) argues that shared leadership enhances performance through the group's collective cognitive capacity, cognitive diversity, and problem solving ability. Other research suggests that the maximization of shared leadership does not always result in improved outcomes (Mehra et al., 2006). This research has been done in the context of team outcomes, and no conclusive evidence is available on this association in dyadic relationships.

Attempting to confirm the positive association between shared leadership and performance in the context of leader-employee dyads then leads us to the following hypothesis: H1: *Shared leadership in leader-employee dyads is positively associated with employee performance.*

Task Interdependence and Performance

Teams high in task interdependence rely on mutual collaboration and coordination, which enhances efficiency and overall performance (Nguyen & Bell, 2025; Nicolaides et al., 2014). A recent study by Widianto et al. (2024) suggests that task interdependence improves team performance through influencing team identity. The researchers argue that when employees depend on one another to complete tasks, it fosters a shared identity within the team, which in turn enhances cohesion, motivation, and commitment, ultimately resulting in improved team performance. While Widianto et al. (2024) investigated task interdependence at the individual level, all of the mentioned research examined performance in the context of teams, leaving a gap in understanding how task interdependence and shared leadership function at the dyadic level, particularly in leader-employee relationships.

To confirm the positive association between levels of task interdependence and performance outcomes and to fill the knowledge gap pertaining to the dyadic context we propose the following hypothesis:

H2: *Task interdependence in leader-employee dyads is positively associated with employee performance*

Moderation Effect.

The central assumption of this study is that shared leadership is more effective in leader-employee dyads where task interdependence is high. Thus, task interdependence positively moderates the relationship between shared leadership and performance. This assumption is grounded in contingency theories of leadership (Fiedler, 1967), which suggest that leadership effectiveness depends on the fit between leadership style and situational demands. In this case, high task interdependence is considered a context in which shared leadership may be especially effective, as both leader and employee rely on each other to complete their work. In addition, Leader–Member Exchange (LMX) theory (Graen & Uhl-Bien, 1995) proposes that high-quality relationships between leaders and followers develop through frequent interaction and mutual dependence-conditions often present in highly interdependent dyads. These high-quality exchanges are likely to help the emergence and improve the chances of success of shared leadership.

This theoretical reasoning is supported by previous research that has examined how task interdependence influences the effectiveness of shared leadership. When team members rely on each other to complete tasks, the coordination, decision making and knowledge sharing that is facilitated by shared leadership is suggested to increase performance (Nicolaides et al., 2014). In the same light, teams with high interdependence benefit more from shared leadership due to the need for greater coordination and collective problem-solving (Wu et al., 2020). And Fausing et al., (2015) concluded that task interdependence as well as goal interdependence had a positive

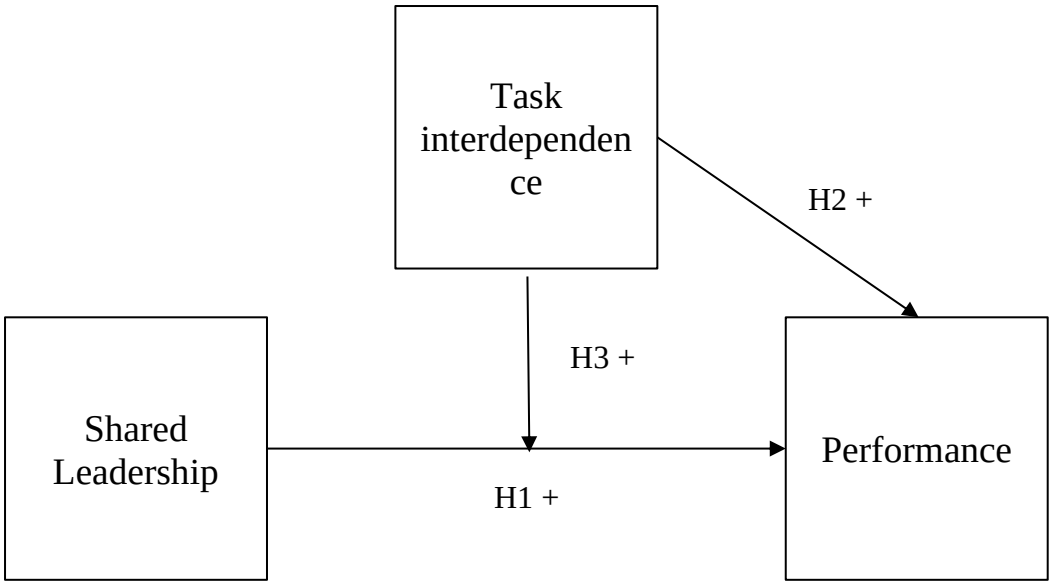
effect on shared leadership and team performance. However, the meta-analysis by D'innocenzo et al., (2014) found no significant moderating effect of task interdependence on shared leadership and performance, with the researchers suggesting that measurement inconsistencies across studies could explain the mixed findings. However, another possibility would be that no effect was found on the team level while an effect on the dyadic level went overlooked. This study plans to build on their study and clarify inconclusive findings by examining the interaction between shared leadership and task interdependence at the dyadic level. It aims to clarify whether task interdependence improves or impairs the effect of shared leadership on performance.

Interestingly, low levels of interdependence can lead to diminished effectiveness of shared leadership and might even undermine performance. Too much perceived task interdependence negatively affects the benefits of shared leadership and excessive task interdependence leads to role confusion, inefficiencies and frustration (Ullah & Park, 2013). In other words, when the level of shared leadership does not align with the amount of task interdependence, teams are more likely to experience problems such as role confusion (Nguyen & Bell, 2025). This further highlights why it is important to consider the fit between leadership structure and task interdependence. Thus, we propose task interdependence moderates the effect of shared leadership on employee performance. We investigate this with the following hypothesis:

H3: *Task interdependence moderates the positive relationship between shared leadership and performance in leader-employee dyads, such that this relationship is stronger at high level of task interdependence and weaker or negative at low levels of the moderator.*

Figure 1.

Moderation Model



Method

Participants

After data pre-processing the final sample consisted of 130 leader-employee dyads. Among employees, 57.3% were female and 42.7% male, with a mean age of 33.9 years (SD = 12.6, range 18-63). Most employees (89.3%) reported working in teams and the largest proportion worked between 32 and 40 hours per week. Educational background was diverse with 29.8% holding a degree from a university of applied sciences (HBO), 25.2% had a degree from a research university (WO) and 21.4% a vocational degree (MBO). The remaining part completed secondary education (HAVO, VWO/Gymnasium, VMBO). Among leaders, 58.8% were male and 41.2% female, with a mean age of 42.6 years (SD = 12.7, range: 20-65). Most leaders were working either 36 (20.6%) or 40 (35.9%) hours per week. On average leaders had higher education levels with 44.3% holding a degree from a university of applied sciences and 30.5% having a degree from a research university. Most leaders had more than 2 years of supervisory experience (73.3%). Dyads worked across various sectors. The most commonly reported being healthcare, education and government organisations. Organisations varied in size, 39.7% were large (>250 employees), 25.2% medium (50-250 employees) and 35.1%

small (<50 employees).

The participants in this study were leaders and employees from Dutch organizations, forming dyads. Participants were recruited from the personal and professional networks of the bachelor thesis team, as well as cold approaching local companies in and around Groningen. Dyads consist of the employee and their direct supervisor. All participants were adults employed in team-based environments as the study investigates the dynamics of shared leadership and task interdependence within collaborative settings.

Inclusion criteria specified that participants had to be at least 18 years of age and work a minimum of 20 hours per week. This ensured that they were sufficiently engaged in the team and their responses to our questionnaire would be meaningful to our research. No financial incentives or compensation were offered for participation.

Design and Procedures

This study used a cross-sectional, quantitative survey design to examine whether task interdependence moderates the relationship between shared leadership and employee performance in leader–employee dyads. Data was collected using two online questionnaires with the Qualtrics survey platform, one of which was given to the employees and the other to the leaders. Before the start of the data collection both leader and employee surveys were reviewed by peers to ensure clarity and correctness. Each questionnaire started with a detailed information sheet outlining the purpose of the study and informing the participant about their anonymity, ethical approval and the use of their data. Both the leader and employee were instructed to create an identifier code consisting of the last two letters of the leader's name followed by the last two letters of the employee's name. This code was later used to match the dyads. The questionnaires took approximately 10 minutes to complete and measured a range of different concepts of which only task-interdependence, shared leadership and performance are relevant for this study. Of those concepts both employees and leaders rated task-

interdependence, while only leaders rated performance and only employees rated levels of shared leadership. Data collection was conducted between April 2 and May 12, and the entire procedure was approved by the Ethics Committee of the Faculty of Behavioral and Social Sciences at the University of Groningen.

Measures

All measures were tested for using validated scales that were translated into Dutch. Participants rated all items on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

The employee and leader each got a different version of the questionnaire where only the employee rated shared leadership and only the leader rated performance. Both leader and employee rated task-interdependence.

Shared leadership

Was measured using a 9-item scale that was developed by Hoch (2013) and subsequently adapted to match a dyadic context. It assesses to what extent leadership is distributed across the team versus being centralized to the leader. It includes items such as "My leader encourages me to take responsibility for my work" and "My leader and I decide together on my performance goals", that indicate whether the employee is encouraged to take on various degrees of leadership. The full employee questionnaire in Dutch can be found in Appendix A.

Post hoc tests for internal consistency of the scale showed excellent reliability ($a = 0.9$)

Performance

Was defined as a construct consisting of in-role and extra-role behaviours (Williams and Anderson, 1991), where in-role behaviours refer to actions that are recognised as part of an employee's job, while extra-role behaviours are not formally recognised but do support the social and psychological environment of the organisation. Performance was measured on the

individual level using a combination of items from Van der Vegt and Bunderson (2005) and Williams and Anderson (1991). The combined scale consists of 27 items that cover task performance and contextual performance. Task performance items reflect in-role behaviors, while contextual performance items capture extra-role behaviors that benefit the organization or coworkers. The scales have both been widely used in organizational research and have shown to predict outcomes such as supervisor ratings and organizational commitment (Williams & Anderson, 1991). Post hoc tests for internal consistency showed excellent results (a = 0.933).

Task interdependence

Was graded by both employees and leaders. In both cases it was measured with a 5-item scale developed by Van der Vegt et al. (2001). The scale examines the degree to which employees rely on their colleagues for information, resources and help to do their work. Examples of items on the questionnaire include “Ik moet informatie en advies van mijn medewerker vragen om mijn werk te kunnen voltooien.” and “Ik werk alleen; ik hoef zelden mijn werk te laten controleren of met mijn leidinggevende samen te werken” The scale was validated on Dutch engineering and educational teams. Internal consistency was assessed post hoc using Crohnbach’s alpha. Employee rated task interdependence had acceptable reliability (a = 0.705) whereas leader rated task interdependence was of questionable reliability (a = 0.651) which should be taken into account when interpreting the results.

Results

Descriptive Statistics

Table 1. Summarizes the mean and standard deviations of the main study variables. Employees rated the degree of shared leadership moderately high (M = 5.46, SD = 0.78). Leader rated scored the employees performance 5.90 (SD = 0.72) on average. Task interdependence was rated 4.31 (SD = 1.08) by leaders and lower at 3.42 (SD = 1.13) by employees.

Pearson correlations were computed among the main variables and depicted in table 2. Employee rated shared leadership was positively correlated with leader rated performance (r = 0.376, p = 0.001), but not significantly with either employee rated task interdependence (r = 0.079, p = 0.374) or leader rated task interdependence (r = 0.153, p = 0.081). Task interdependence as rated by the employee was positively correlated with leader rated performance (r = 0.172, p = 0.05), while task interdependence as rated by the leader was positively correlated with performance (r = 0.19, p = 0.028). Finally, employee rated task interdependence was significantly positively correlated with leader rated task interdependence (r = 0.172, p = 0.05). To aid in consideration of merging both task interdependence scales for analysis, the intraclass correlation coefficient (ICC) was calculated to measure agreement. The ICC for absolute agreement between employee-rated and leader-rated task interdependence was 0.23, indicating poor agreement. Cronbach's alpha was also low (a = 0.29). These results suggest that the two ratings should not be averaged and should be analysed separately.

Table 1.

Means, Standard Deviations, and Correlations Between Core Study Variables

Variable	**Mean**	**SD**	**1.**	**2.**	**3.**	**4.**
1. Performance	5.89	0.72	–			
2. Shared Leadership	5.46	0.78	.38***	–		
3. Employee Task Interdependence	3.42	1.13	-.19*	.079	–	
4. Leader Task Interdependence	4.31	1.08	.18*	.15	.17	–

Note. N = 130.

* p < .05. ** p < .01.*** p < .001

Assumption Checks

All of the mentioned visual representations of the data used for checking the regression assumptions can be found in appendix C. Independence of observations was supported by the dyadic structure of the data because leaders and employees were unique pairs, avoiding repeated measures. This was further confirmed by the Durbin-Watson statistic of 2.18 indicating no significant autocorrelation among the residuals. Linearity was checked for using scatterplots of the residuals against the predicted values and showed no systemic deviation from a linear pattern. Multicollinearity was checked for with the variance inflation factors (VIF) and tolerance values, where no problematic correlations among predictors were found. Homoscedasticity was confirmed through plotting the residuals against predicted values. Multivariate normality of residuals was checked for using Q-Q plots and histograms, with no reason to assume a violation of normality. A small number of outliers were identified ($SD > 3$). One of those outliers was influential with Cook's distance: 0.8 for leader rated task interdependence and 1.47 for leader rated task interdependence.

Additional analyses were conducted with these outliers removed. In the employee-rated task interdependence model, the outlier appeared to suppress meaningful effects; its removal strengthened the model, revealing a significant interaction and a stronger effect of shared leadership. Conversely, in the leader-rated model, the outlier may have inflated the interaction effect; once removed, the moderation effect was no longer significant. Based on these findings, the final analyses reported below are those with the influential outlier excluded.

Hypothesis Testing

Due to low correlation between the two measures of task interdependence the scales were not merged into a single task interdependence variable. Instead, two separated moderation models were investigated. The two moderation models were tested using SPSS, predictors were centered.

Hypothesis 1 states that shared leadership in leader-employee dyads is positively associated with employee performance, hypothesis 2 states that task interdependence in those dyads is positively associated with employee performance and hypothesis 3 states that task interdependence moderates this relationship, yielding a bigger influence of shared leadership on performance for higher levels of task interdependence. To test these hypotheses, we regressed performance on shared leadership, task interdependence and their interaction, doing a separate analysis for each of the task interdependence measures. The independent variables were centered before computing the interaction term and executing the regression. The final model using employee rated task interdependence explained 23% of the variance in the dependent variable performance, R^2 = .230, Adjusted R^2 = .212, $F(3, 126) = 12.546$, $p < .001$. While the final model using leader rated task interdependence explained 17% of the variance in dependent variable performance, R^2 = .169, Adjusted R^2 = .149, $F(3, 126) = 8.526$, $p < .001$.

The model with leader rated task interdependence is depicted in Table 2. Shared leadership was found to be a significant positive predictor of performance, whereas neither leader rated task interdependence, nor the interaction effect were found to be significant.

Table 2.

Results of the Regression Analysis with Leader Rated Task Interdependence

Predictor	***B***	***SE***	***t***	***p***
Constant	5.894	.059	99.076	<.001
Shared Leadership	.278***	.067	4.175	<.001
Leader TI	.094	.060	1.579	.117
Interaction	-.099	.074	-1.339	.183

Note. All predictors are centered. TI: Task interdependence

* $p < .05$. ** $p < .01$.*** $p < .001$.

The model with employee rated task interdependence is shown in Table 3. In this model shared leadership was again found to predict performance. Employee rated task interdependence was found to negatively predict performance and the interaction had a positive effect on the outcome.

Table 3.

Results of the Regression Analysis with Employee Rated Task Interdependence

Predictor	***B***	***SE***	***t***	***p***
Constant	5.866	.057	103.718	<.001
Shared Leadership	.326***	.063	5.149	<.001
Employee TI	-.166**	.057	-2.927	.004
Interaction	.161**	.061	2.636	.009

Note. All predictors are centered. TI: Task interdependence

* $p < .05$. ** $p < .01$.*** $p < .001$.

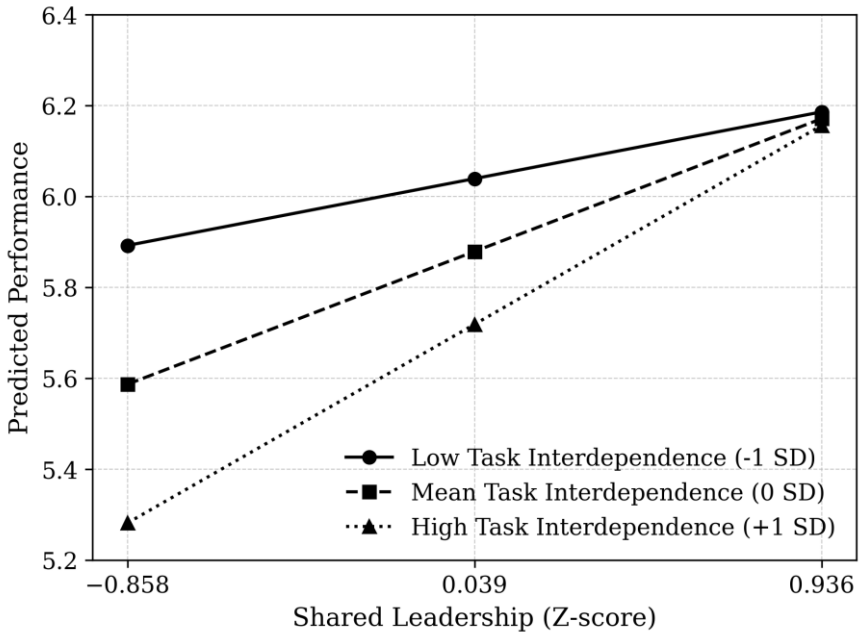
Hypothesis 3 proposed that the moderating effect of task interdependence would result in a stronger relationship between shared leadership and performance at higher levels of task interdependence, and a weaker or even negative relationship at lower levels. To test this, a simple slopes analysis was conducted, examining the conditional effect of shared leadership on performance at specific values of task interdependence (i.e., at the mean, +1 SD, and –1 SD). The results indicated that the slope of shared leadership on performance was strongest at higher levels of task interdependence ($b = 0.4872$, $SE = 0.0904$, $p < .001$, 95% CI [0.3082, 0.6662]) and remained significant at the mean ($b = 0.3255$, $SE = 0.0633$, $p < .001$, 95% CI [0.2002, 0.4508]), but was not statistically significant at lower levels ($b = 0.1637$, $SE = 0.0858$, $p = .0587$, 95% CI [–0.0061, 0.3336]).

To further investigate the nature of this moderation, a Johnson–Neyman analysis was performed. This analysis identified the value of centered task interdependence at –0.9816 as the threshold below which the effect of shared leadership on performance was not statistically

significant, and above which it became significant. In other words, the relationship between shared leadership and performance was only statistically significant when task interdependence was at or above –0.98, encompassing the majority of observed values. This supports the hypothesis that the effectiveness of shared leadership increases with task interdependence.

Figure 2.

Conditional Effect of Shared Leadership on Performance at Different Levels of Employee-Rated Task Interdependence



Discussion

This study aimed to examine the conditions under which shared leadership increases employee performance, focusing on the moderating role of task interdependence in leader-employee dyads. Shared leadership positively predicted performance, but only when employees perceived a moderate to high level of task interdependence. At lower levels of perceived task interdependence, the benefits of shared leadership diminished and became statistically insignificant. Importantly, only employee-rated task interdependence was found to be a significant predictor of performance and a significant moderator of the relationship between shared leadership and performance.

Theoretical Implications

This study contributes to the existing literature by extending shared leadership theory to the dyadic level, addressing a gap in current research. Most prior research has focused on the team level, while the findings from this study shows that the positive effect of shared leadership is also present within individual leader-employee relationships.

The findings support the first hypothesis which states that shared leadership is positively associated with employee performance at the dyadic level. This aligns with well-established team-levels studies (Carson et al., 2007; Wang et al., 2014; Nicolaides et al., 2014) and extends their findings to the context of individual leader-employee relationships. By focusing on dyads instead of teams, this study provides empirical support for the idea that shared leadership processes are not limited to team settings but can also exist and function effectively in one-on-one professional relationships. This aligns with DeRue et al. (2011), who argue that leadership is a dynamic, co-constructed process based in interpersonal interaction rather than static role structures. It also supports Gooty and Yammarino's (2011) recommendation that leadership research should account for relational variation at the dyadic level, because such differences can meaningfully influence leadership processes and outcomes. The current study contributes to contingency theory by showing that fit between leadership style and context operates not only at the team or organizational level, but also within leaders-employee dyads.

Contrary to the second hypothesis, employee-rated task interdependence was negatively associated with performance at the dyadic-level, while leader-rated task interdependence was not a significant predictor of performance. This negative association could mean that excessive task interdependence, as perceived by the employee, has significant downsides like role confusion, coordination overload and inefficiencies, as suggested by prior research on Received Task Interdependence (RTID) by Ullah & Park (2013). When employees perceive themselves as highly dependent on others, they may experience frustration and ambiguity around their

roles, which can decrease their performance. In the dyadic context, high perceived dependency on the leader may amplify these tensions.

The moderation analysis showed that only employee-rated task interdependence significantly moderated the relationship between shared leadership and performance. Subsequently, a simple slopes analysis confirmed the initial hypothesis that the positive effect of shared leadership on performance would be greater for higher levels of task-interdependence. Further analysis found that shared leadership only significantly enhanced performance when employee-rated task interdependence was above approximately one standard deviation below the mean. These findings are in alignment with prior research on RTID (Ullah & Park, 2013) and suggest that within leader-employee dyads, when employees perceive their tasks as relatively independent from those of their leaders, shared leadership offers little added value. In such contexts, the collaborative and distributed nature of shared leadership may not align with the autonomy of the work, leading to diminished relevance or impact on performance outcomes. This highlights the importance of contextual fit between leadership style and task structure, supporting contingency theories of leadership.

The results of this study also indicate that the moderating effect of task interdependence in a dyadic context is contingent on the employee's own perception of the construct, rather than the leader's. This result is in alignment with findings related to LMX theory, where employee-rated relationship quality was more strongly correlated with performance than leader-rated assessments (Gerstner & Day, 1997), highlighting the significance of the followers perception in dyads. A possible explanation for this finding is that the performance of the employee is more dependent on the perception of the employee than the perception of the leader. This makes logical sense because it is the employee's own experience of task interdependence that likely shapes their behavior and collaboration efforts, which are then observed and evaluated by the leader.

Strengths, Limitations, and Future Research Directions

An important strength of the present research is the use of multi-source data collection. Data were collected from both employees and their direct supervisors, using distinct questionnaires for each construct. Employees rated their own perception of task interdependence and levels of shared leadership, while leaders rated their perception of task interdependence and the employee's performance. This design reduces common method bias.

Nevertheless, some study limitations deserve mention. .Future research could build on this study in several ways. First, this study's cross-sectional design makes it that no conclusions about causality can be drawn. For this future research should use longitudinal or experimental. For example, a time-lagged design could assess whether increases in shared leadership precede increases in performance under different levels of task interdependence.

Second, the current sample was drawn from Dutch organizations, which are characterized by low power distance and relatively egalitarian workplace cultures. While this context aligns well with shared leadership theory (Hofstede, 2001), it limits the generalizability of the findings. Future research could explore how cultural factors moderate the effectiveness of shared leadership by performing the same study in high versus low power distance countries and comparing the results. This would contribute to extending shared leadership theory across different cultures.

Third, the leader-rated task interdependence scale had low internal consistency (α = .651), indicating poor reliability. Future studies should consider using more extensive or adapted versions of the scale combined with observational measures to reduce bias from self-report and improve measurement validity (Podsakoff et al., 2003).

Fourth, this study found poor agreement between leader- and employee-rated task interdependence, indicating that the two perspectives may reflect different underlying constructs or interpretations. Future research could examine this disagreement more closely by

employing dyadic analysis techniques combined with mixed-method approaches, such as interviews or diary studies, to better understand the psychological mechanisms that shape each party's perception.

Finally, from a theoretical standpoint, future research could extend the model by examining whether other moderators, such as goal interdependence (Saavedra et al., 1993), psychological safety (Edmondson, 1999), or trust (Dirks & Ferrin, 2002), influence the strength of shared leadership at the dyadic level. This would help refine contingency-based models of shared leadership and expand the framework to account for more nuanced leader-follower interactions.

Practical Implications

The present results suggest that the perceived level of task interdependence by the employee plays an important role in the effectiveness of shared leadership in increasing performance. By assessing the level of task interdependence through interdependence mapping exercises, organizations may infer if distribution of leadership and responsibility could benefit or diminish employee performance outcomes, implementing a more shared leadership structure when task interdependence is high and the inverse when it is low. The Dutch work context, which is characterized by low power distance and a collaborative culture, organizations are in a good position to benefit from shared leadership implementations, if they take contextual factors into account. Training programs could be designed and implemented to deal with decision making, role clarity and accountability issues that may arise from shared leadership models.

Finally, the results point to different perceptions between employees and leaders regarding task interdependence. This would mean that leaders are advised to inquire about employees' perceptions of task interdependence rather than making decisions about leadership structures based solely on their managerial intuition.

Conclusion

This study examined the moderating role of task interdependence in the relationship between shared leadership and employee performance at the dyadic level. The findings show that shared leadership positively predicts performance, but only when employee-rated task interdependence is moderate to high. Only employee perceptions of interdependence significantly moderated this relationship, highlighting the importance of individual experience in shaping leadership outcomes. By focusing on dyadic interactions, the study extends shared leadership theory beyond the team level and supports contingency perspectives, which argue that leadership effectiveness depends on contextual fit. These results underscore the need for organisations to consider both the nature of the work and how employees perceive interdependence when implementing shared leadership practices.

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Appendix A

Employee Survey Items

Shared Leadership

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.

Task Interdependence

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. Ik moet informatie en advies van mijn leidinggevende krijgen om mijn werk te kunnen afronden.
2. Ik ben afhankelijk van mijn leidinggevende voor de voltooiing van mijn werk.
3. Ik werk alleen; ik hoef zelden mijn werk te laten controleren of met mijn leidinggevende samen te werken.
4. Ik moet nauw samenwerken met mijn leidinggevende om mijn werk goed te kunnen doen.
5. Om zijn/haar werk te kunnen doen, moet mijn leidinggevende informatie (en advies) bij mij inwinnen.

Appendix B

Leader Survey Items

Performance

De volgende vragen gaan over uw medewerker.

(1=zeer slechte prestatie, 7=zeer goede prestatie)

Hoe scoort *uw medewerker* op…:

… het bereiken van doelen?

… het behalen van deadlines?

… werksnelheid?

… de kwaliteit van het werk?

… productiviteit?

… effectiviteit?

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 tevoren 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

Task Interdependence

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]

1. Ik moet informatie en advies van mijn medewerker vragen om mijn werk te kunnen voltooien.
2. Ik ben afhankelijk van mijn medewerker voor de voltooiing van mijn werk.
3. Ik werk alleen; ik hoef zelden mijn werk te laten controleren of met mijn medewerker samen te werken.
4. Ik moet nauw samenwerken met mijn medewerker om mijn werk goed te kunnen doen.
5. Om zijn/haar werk te kunnen doen, moet mijn medewerker informatie en advies bij mij inwinnen.

Appendix C

Assumption Checks

Figure 3.

Histogram of the Standardized Residuals of the Leader Rated Task Interdependence Mode

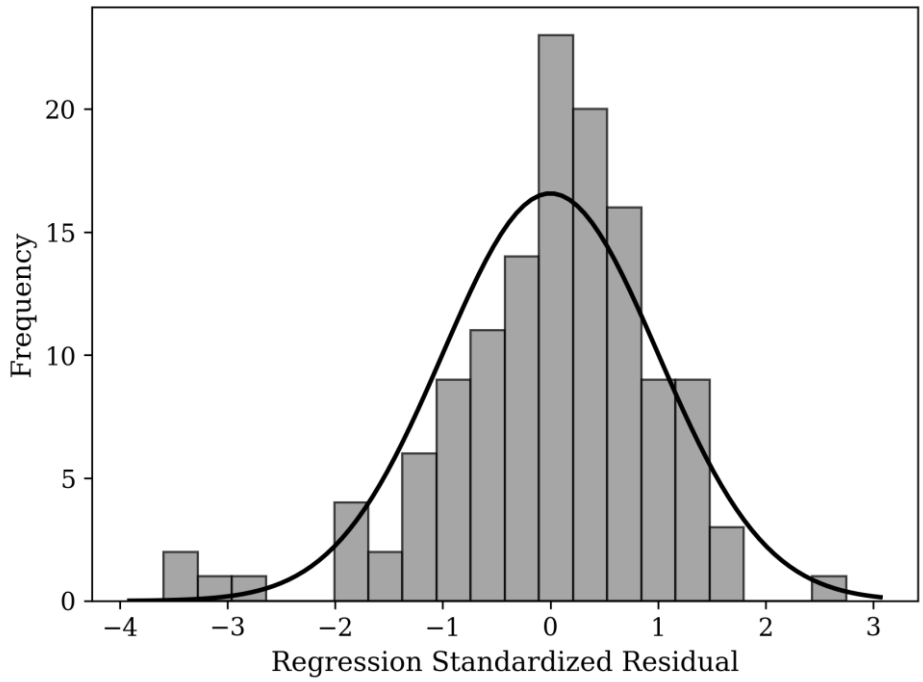


Figure 4.

Q-Q plot of the standardized residuals for the Leader Rated Task Interdependence Model.

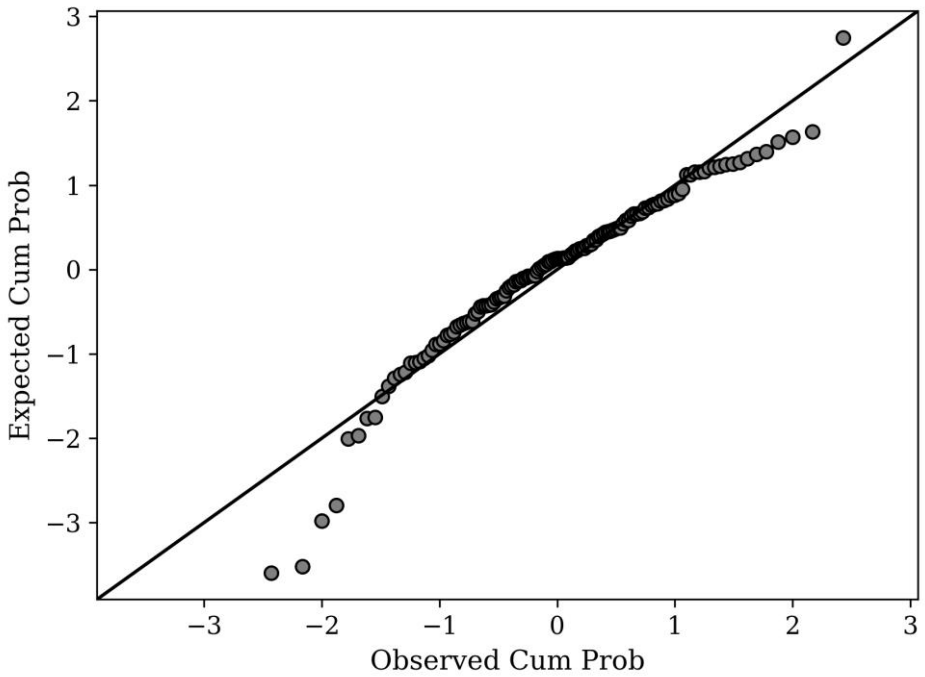


Figure 5.

Scatterplot of Standardized Predicted Values vs. Standardized Residuals for the Leader Rated Task Interdependence Model.

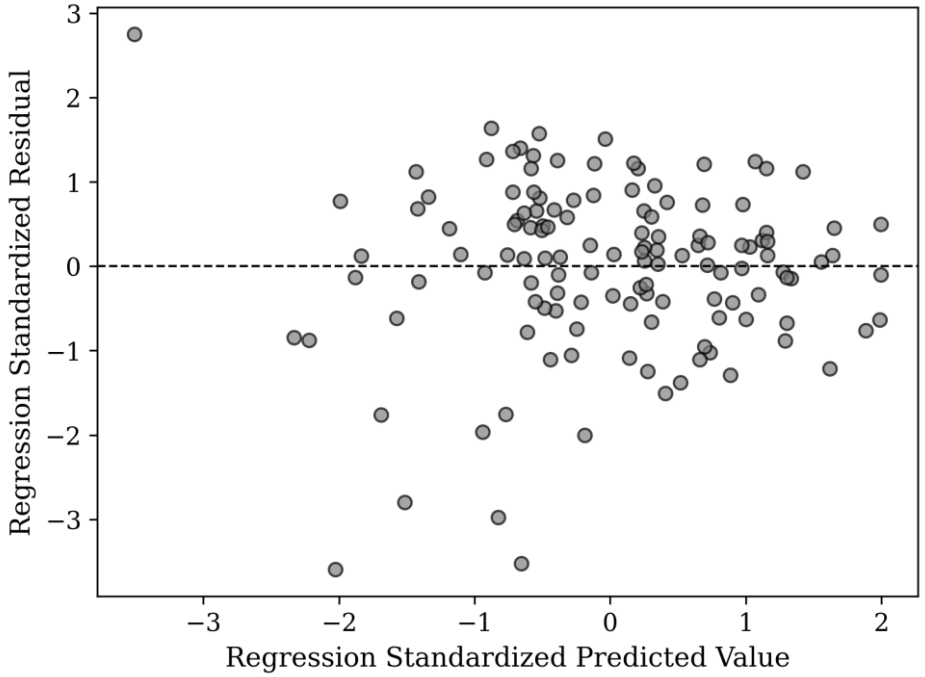


Figure 6.

Histogram of the Standardized Residuals of the Leader Rated Task Interdependence Model

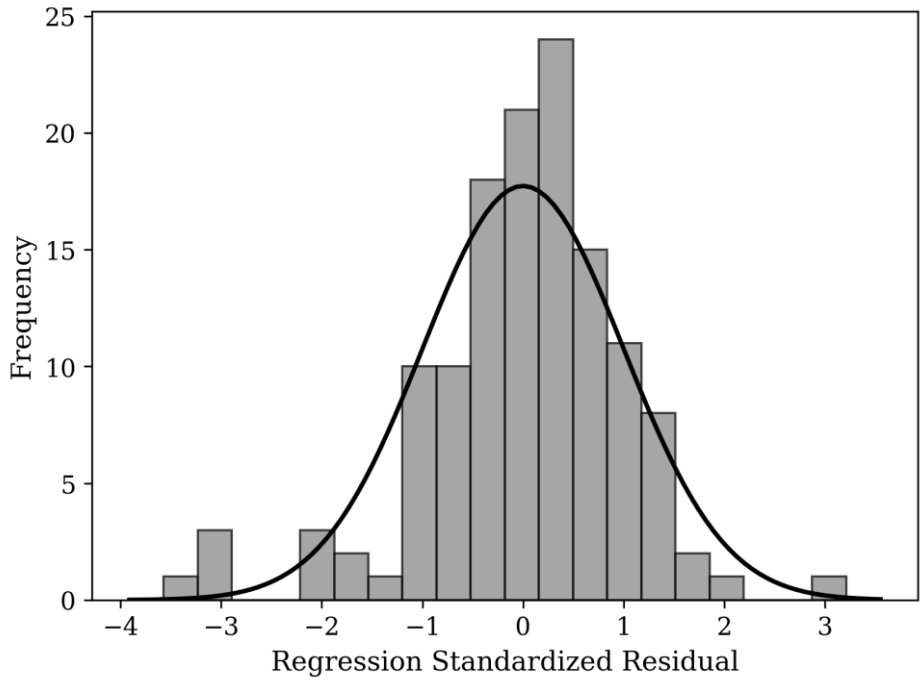


Figure 7.

Q-Q plot of the standardized residuals for the Employee Rated Task Interdependence Model.

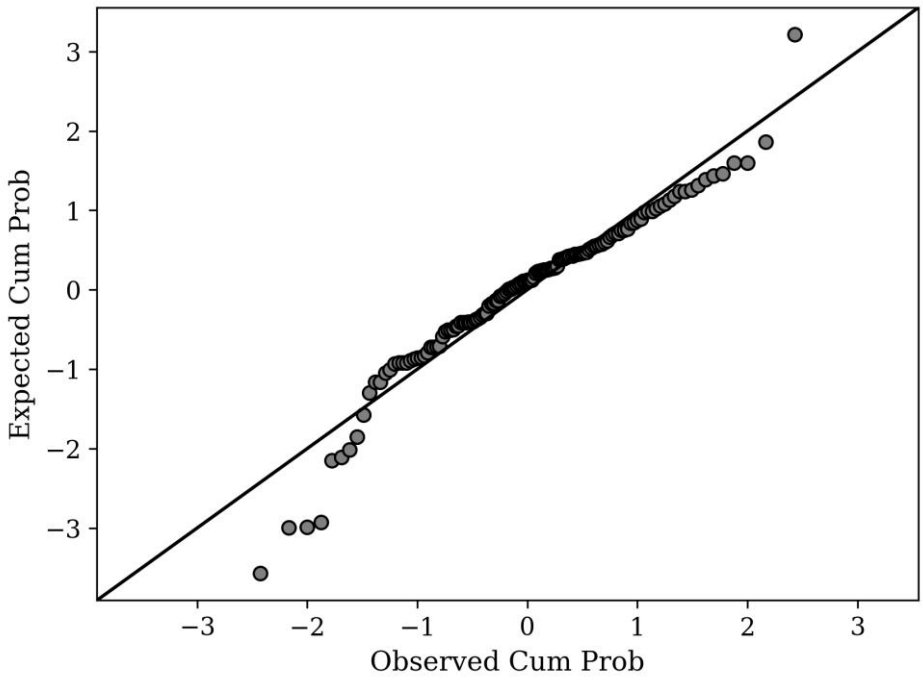
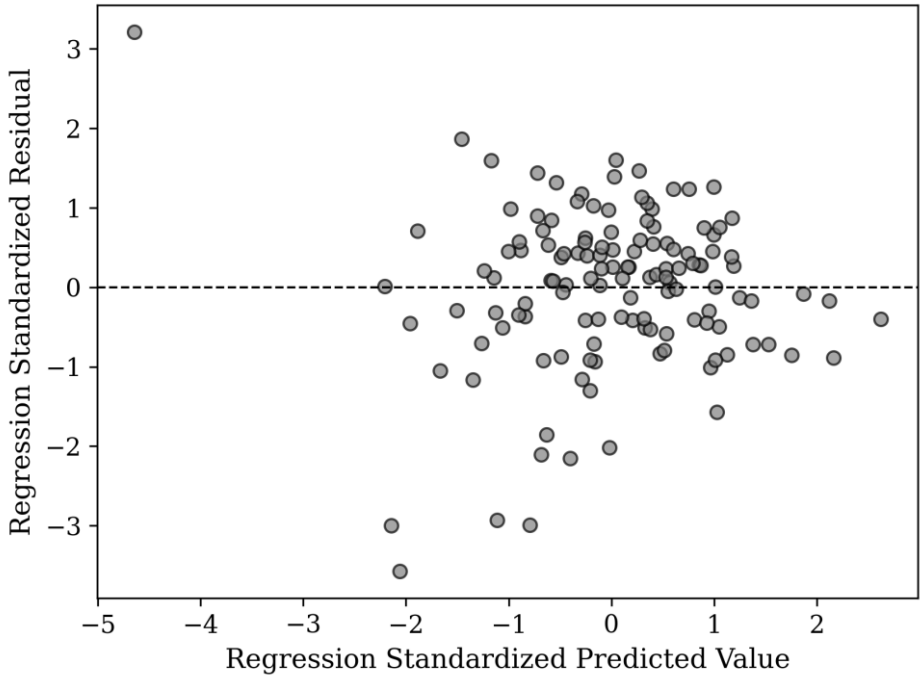


Figure 8.

Scatterplot of Standardized Predicted Values vs. Standardized Residuals for Employee Rated Task Interdependence Model.



Appendix D

Johnson-Neyman Analysis

Table 4.

Conditional Effects of Shared Leadership on Performance at Values of Task Interdependence

Task interdependence (centered)	***Effect***	***SE***	***t***	***p***	***95% CI***
-2.1455	*-0.02*	*0.14*	*-0.14*	*0.89*	*[-0.30, 0.26]*
-1.9154	*0.02*	*0.13*	*0.13*	*0.89*	*[-0.24, 0.27]*
-1.6853	*0.05*	*0.12*	*0.46*	*0.65*	*[-0.18, 0.29]*
-1.4552	*0.09*	*0.11*	*0.86*	*0.39*	*[-0.12, 0.30]*
-1.2251	*0.13*	*0.1*	*1.35*	*0.18*	*[-0.06, 0.32]*
-0.9951	*0.17**	*0.09*	*1.94*	*0.05*	*[-0.00, 0.33]*
-0.9816	*0.17**	*0.08*	*1.98*	*0.05*	*[0.00, 0.34]*
-0.765	*0.2***	*0.08*	*2.65*	*0.01*	*[0.05, 0.35]*
-0.5349	*0.24****	*0.07*	*3.44*	*< .001*	*[0.10, 0.38]*
-0.3048	*0.28****	*0.06*	*4.35*	*< .001*	*[0.15, 0.41]*
-0.0747	*0.31****	*0.06*	*4.97*	*< .001*	*[0.19, 0.44]*
0.1554	*0.35****	*0.06*	*5.44*	*< .001*	*[0.22, 0.48]*
0.3855	*0.39****	*0.07*	*5.64*	*< .001*	*[0.25, 0.52]*
0.6155	*0.43****	*0.08*	*5.64*	*< .001*	*[0.28, 0.57]*
0.8456	*0.46****	*0.08*	*5.51*	*< .001*	*[0.30, 0.63]*
1.0757	*0.5****	*0.09*	*5.34*	*< .001*	*[0.31, 0.69]*
1.3058	*0.54****	*0.1*	*5.13*	*< .001*	*[0.33, 0.74]*
1.5359	*0.57****	*0.12*	*4.94*	*< .001*	*[0.34, 0.80]*
1.766	*0.61****	*0.13*	*4.76*	*< .001*	*[0.36, 0.86]*
1.9961	*0.65****	*0.14*	*4.61*	*< .001*	*[0.37, 0.93]*
2.2261	*0.69****	*0.15*	*4.47*	*< .001*	*[0.38, 0.99]*
2.4562	*0.72****	*0.17*	*4.34*	*< .001*	*[0.39, 1.05]*

Note. * $p < .05$. ** $p < .01$.*** $p < .001$.