



Are recipients more cooperative when helped by high-hierarchy individuals?

Chao Zhang¹, Yi Chen^{2,*} and Dexin Hu³

¹School of Economics and Management, Lanzhou University of Technology, Lanzhou, China

²School of Labor and Human Resources, Renmin University of China, Beijing, China

³School of Education, Tianjin University, Tianjin, China

*Correspondence: Yi Chen, chenyi2023@ruc.edu.cn

Received: 06 November 2025; Accepted: 28 April 2026; Published: 30 October 2026

Abstract: Drawing on social exchange theory and attribution theory, our study examined how helpers' hierarchical characteristics, including hierarchical level (high vs. low) and hierarchical type (power vs. status), influenced recipients' cooperative behavior. Across three scenario experiments, participants received help from a colleague who differed in hierarchical level or type and then reported their gratitude and cooperative behavior. Study 1 ($n = 107$) revealed that receiving help from a high-power (vs. low-power) colleague increased participants' cooperative behavior by eliciting greater gratitude, supporting H1 and H3. Study 2 ($n = 108$) focused on status hierarchy using a similar design. Participants who received help from a high-status (vs. low-status) colleague showed greater cooperation, supporting H2; however, gratitude did not significantly mediate this relationship, and thus H4 was not supported. Study 3 ($n = 225$) employed a 2 (hierarchical level: high vs. low) $\times$ 2 (hierarchical type: power vs. status) scenario experiment to test the integrated model. The results were consistent with the preceding two studies; additionally, there was no significant difference between the effects of power and status hierarchies on cooperation, which was inconsistent with H5. Crucially, the mediating role of gratitude differed significantly between power and status hierarchies, supporting H6. The findings disentangle hierarchical level and hierarchical type in helping contexts and provide new insights into how hierarchy shapes cooperative responses following helping interactions.

Keywords: Power; status; hierarchy; gratitude; cooperative behavior

Introduction

Interpersonal helping within organizations plays a vital role in facilitating organizational functioning and enhancing efficiency (Doyle et al., 2016; Obeng & Zhu, 2025; Yang, 2025). Despite extensive research on the consequences of helping behavior (Lyons & Scott, 2012; Park et al., 2024), much of the prior work has focused primarily on its effects on helpers' own subsequent behavior (Han et al., 2020; Hong et al., 2025; Watkins et al., 2022) and leaders' behavior (Chernyak-Hai et al., 2024; Li et al., 2026), whereas the impact on recipients remains comparatively underexplored. Additionally, prior research has often treated helping as a relatively positive act and therefore implicitly assumed that behavior should elicit positive reciprocity (Cropanzano et al., 2017). However, helping in organizations is not provided in a social vacuum. Recipients may respond not only to the help itself, but also to who provides it. In particular, recipients' reactions to help from helpers occupying different hierarchical positions remain underexplored. Accordingly, we focus on how helpers' hierarchical characteristics shape recipients' cooperative behavior after receiving help.

Helpers' hierarchy and recipients' cooperative behavior

Understanding recipients' reactions is critical because helping interactions inherently involve social exchange relationships. Social exchange theory (SET) provides the primary theoretical basis for explaining whether and why help from higher-hierarchy actors may promote recipients' cooperative behavior. According to SET, social interactions involve the exchange of valued resources,

including not only instrumental resources but also symbolic resources such as respect, concern, and relational investment (Blau, 1964; Cropanzano & Mitchell, 2005). When recipients receive help from actors occupying higher hierarchical positions, they are likely to perceive such help as more valuable and, in turn, feel motivated to reciprocate with positive attitudes and behaviors, thereby sustaining reciprocal exchange relationships (Gouldner, 1960). Thus, SET helps explain why higher-hierarchy helpers may promote recipients' cooperative behavior.

However, higher-hierarchy actors are not all perceived in the same way. Recipients do not respond solely to the benefits they receive; they also evaluate what those benefits signify about the helper's intentions (Cropanzano & Mitchell, 2005). Thus, the meaning of help depends not only on its instrumental or symbolic value, but also on how recipients construe why the helper offered it (Kelley & Michela, 1980). Accordingly, we incorporate attribution theory as a complement to SET to explain why different hierarchical characteristics may produce differential effects. Specifically, recipients may form different interpretations of help from power-based versus status-based actors, and these interpretations may shape their subsequent emotional and behavioral responses differently.

Among the helper characteristics that may shape such interpretations, hierarchical characteristics are especially important. Helpers' hierarchical characteristics refer to their positions within organizational hierarchies. Hierarchy is the rank order of individuals with respect to a valued social dimension (Magee & Galinsky, 2008). Hierarchical characteristics refer to hierarchical levels and types



(Zhang & Wei, 2025). Hierarchical level reflects an individual's rank within the organization, whereas hierarchical type refers to whether that rank is primarily based on power or status (Blader & Chen, 2012; Blader et al., 2016; Zhang & Wei, 2025). Because power and status represent different forms of hierarchy, they may shape how recipients interpret helping behavior and, in turn, influence recipients' cooperation differently.

Power hierarchy refers to the asymmetric control an individual has over critical resources in social relationships (Kim et al., 2023; Zeigler-Hill & Dehaghi, 2023). Compared to those in a lower-power hierarchy, individuals in a higher-power hierarchy typically possess greater authority over resources (Liu et al., 2024). From a social exchange perspective, help from high-power individuals is likely to be especially valued because powerful actors control resources that are often critical for recipients' goal attainment and career advancement (Magee & Smith, 2013). In addition, because such help can provide both instrumental support and relational benefits, recipients are likely to reciprocate with greater cooperative behavior. Accordingly, when the hierarchy is a power hierarchy, the helpers' hierarchical level is positively associated with recipients' cooperative behavior.

Status hierarchy reflects the extent to which individuals are respected, admired, and voluntarily deferred to by others within organizations (Anderson et al., 2020; Bai et al., 2020a, 2020b). Compared to those in a lower-status hierarchy, individuals in a high-status hierarchy are generally viewed as more other-oriented, helpful, warm, and enthusiastic (Anderson et al., 2015). From a social exchange perspective, help provided by high-status individuals functions as a symbolic resource that signals relational acceptance and social validation to recipients (Zhang & Wei, 2024). Receiving help from a high-status actor may therefore enhance recipients' sense of respect, recognition, and belonging (Tyler & Blader, 2003). Consistent with the norm of reciprocity, recipients are more likely to assign greater value to help received from high-status individuals than low-status individuals, which in turn leads to greater cooperative behavior.

The mediating role of recipients' gratitude

According to SET, gratitude functions as a form of reciprocity for individuals at a lower level in the power hierarchy, due to the asymmetric dependency inherent in power relations (Magee & Galinsky, 2008). To achieve their goals, individuals in a low-power hierarchy largely depend on the resources and sanctioning capacity of high-power individuals. This dependency fosters a heightened desire among organizational members to establish close ties with higher-power individuals (Magee & Smith, 2013). Consequently, help from a high-power individual is likely to be especially valued because it provides instrumental support that is highly relevant to recipients' outcomes. Gratitude, defined as the emotional response arising when individuals perceive themselves to have received benefits beyond their expectations (MacKenzie & Baumeister, 2019), is thus likely to be stronger in response to helping behaviors from high- rather than low-power individuals (Anicich et al., 2022). Accordingly, we propose that

helpers' power hierarchy is positively associated with recipients' gratitude.

Status hierarchy reflects the degree to which individuals are recognized and liked within the organization (Deng et al., 2020; Van Kleef & Lange, 2020; Witkower et al., 2020). Drawing on SET, help from higher-status individuals conveys respect and acknowledgment, thereby eliciting stronger feelings of gratitude among recipients. Gratitude, as a positive emotion attributed to others' benevolence, is amplified when high-status individuals fulfill these expectations through prosocial behaviors (Anderson et al., 2020). Hence, we propose that helpers' status hierarchy is positively associated with recipients' gratitude.

Gratitude is conceptualized as an emotional response to others' benevolence, motivating individuals to feel appreciative and engage in reciprocal behaviors (Junça-Silva et al., 2023; Ma et al., 2017). Reciprocity, a foundational principle of SET, is manifested affectively through gratitude. When individuals perceive themselves as beneficiaries within an exchange relationship, they are likely to experience gratitude (Locklear et al., 2023). Gratitude, in turn, motivates reciprocation, encouraging prosocial and cooperative behaviors (Smith et al., 2017; Van Kleef & Lelieveld, 2022). Thus, we propose that recipients' gratitude is positively associated with their cooperative behavior.

In sum, compared with lower-power individuals, helping behaviors provided by higher-power individuals are more likely to be interpreted as a deliberate attempt to build relational ties and reduce social distance, thereby surpassing recipients' expectations and eliciting stronger feelings of gratitude. Similarly, compared with lower-status individuals, helping behavior from higher-status individuals signals respect and acknowledgment, aligning with role expectations and further enhancing recipients' gratitude. Both dynamics increase recipients' propensity to cooperate with helpers.

The moderating role of hierarchical types

It is important to note that although helpers with both power and status hierarchies promote recipients' cooperative behavior, the strength of their effects may differ due to their inherent nature. Based on attribution theory, people seek to understand the causes of others' behavior by making inferences about the motives underlying that behavior (Kelley & Michela, 1980; Pryor & Kriss, 1977). Help from a higher-power individual is more likely to be interpreted as unexpected and discretionary because high-power actors are often perceived as socially distant and less likely to behave in an other-oriented manner (Gu, 2025; Magee & Smith, 2013). Such help may therefore be especially likely to trigger a strong reciprocal response. In contrast, help from a higher-status individual is more likely to be interpreted as consistent with normative role expectations because high-status actors are typically viewed as warm, prosocial, and other-oriented (Deng et al., 2020; Körner et al., 2025; Soderberg & Howe, 2021). As a result, although help from high-status individuals may still promote cooperation, its effect may be weaker than that of help from high-power individuals. Accordingly, the positive effect of helpers' power hierarchy on

recipients' cooperation is stronger than that of helpers' status hierarchy.

Attribution theory suggests that people seek to understand the causes of others' behavior by making inferences about the motives underlying that behavior, and these attributions shape their subsequent emotional and behavioral responses (Kelley & Michela, 1980; Pryor & Kriss, 1977). Recipients do not respond to helping behavior solely on the basis of the benefit received, but also make inferences about why the helper offered assistance. Thus, although both helpers' power and status may enhance recipients' subsequent cooperative behaviors through gratitude, the strength of these effects differs. In a power hierarchy, help from a higher-power individual is more likely to be interpreted as going beyond recipients' usual expectations, because high-power actors are generally perceived as less likely to behave in an other-oriented manner (Keltner et al., 2003; Magee & Smith, 2013). As a result, such help is more likely to elicit stronger gratitude, which in turn promotes recipients' subsequent cooperative behavior. In a status hierarchy, however, help from a higher-status individual is more likely to be viewed as normative or expected, because such actors are often associated with socially valued role expectations (Anderson et al., 2020; Harari et al., 2022). Accordingly, recipients may be less likely to perceive such help as exceeding expectations, thereby eliciting weaker gratitude and weakening the indirect effect of hierarchical level on cooperative behavior through gratitude. Accordingly, the positive indirect effect of helpers' power hierarchy on recipients' cooperation is stronger than that of helpers' status hierarchy.

Goal of the study

The study aimed to assess the relationship between helpers' hierarchical levels and recipients' subsequent cooperative behavior through the mediating role of gratitude and the moderating effect of hierarchical types (i.e., power hierarchy vs. status hierarchy). Based on this, we propose the following hypotheses:

Hypothesis 1: When the hierarchy is a power hierarchy, the helpers' hierarchical levels positively influence recipients' cooperative behavior.

Hypothesis 2: When the hierarchy is a status hierarchy, the helpers' hierarchical levels positively influence recipients' cooperative behavior.

Hypothesis 3: A higher level of helpers' power hierarchy increases recipients' gratitude, which in turn enhances their cooperative behavior.

Hypothesis 4: A higher level of helpers' status hierarchy increases recipients' gratitude, which in turn enhances their cooperative behavior.

Hypothesis 5: The effect of the helpers' hierarchical levels on the recipients' cooperative behavior is different based on the hierarchical types. Specifically, the positive effect of helpers' power hierarchy on recipients' cooperation is stronger than that of helpers' status hierarchy.

Hypothesis 6: When helpers' hierarchical types are different, their hierarchical levels have differential effects on recipients' cooperation through gratitude.

The theoretical model of this study is shown in Figure 1.

Methods

Research design

While prior research has extensively documented the consequences of helping for helpers themselves and organizations, the recipient's perspective remains notably underexplored. In particular, little is known about how helpers' own characteristics shape recipients' subsequent cooperative behavior. Thus, we conducted three scenario experiments with full-time employees in China to examine how helpers' hierarchical characteristics influence recipients' cooperative behavior. All studies were conducted in Mandarin Chinese. Data were collected via Credamo¹ to conduct the three scenario experiments. Sample sizes for all three studies were determined on the basis of power analyses conducted in G*Power 3.1. Ethics approval was granted by the Academic Ethics Committee of Lanzhou University of Technology. Informed consent was obtained from all participants before data collection.

Study 1 used a single-factor between-subjects design, manipulating helpers' hierarchical level (high vs. low) to test the effect of power hierarchy and the mediating role of gratitude. Study 2 also used a single-factor between-subjects design, manipulating helpers' hierarchical level (high vs. low) to examine the effect of status hierarchy and its potential mediation through gratitude. Study 3

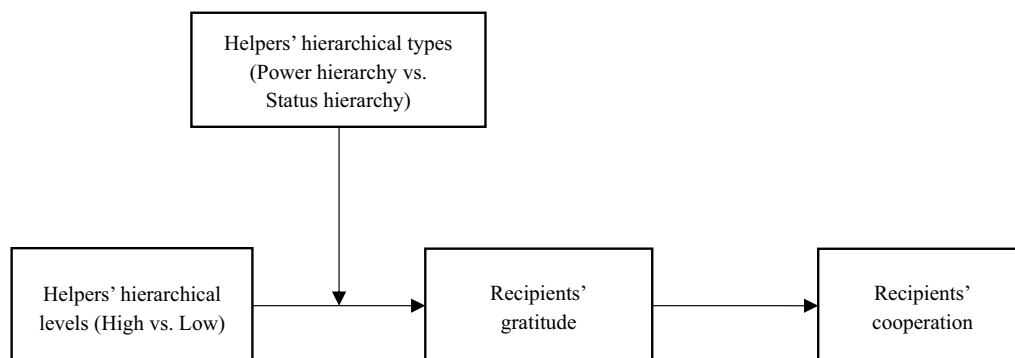


Figure 1. Theoretical model

¹ Credamo (www.credamo.com) is a reliable platform for data collection in China (Gu, 2025; Mei et al., 2025), similar to Amazon Mechanical Turk (MTurk).

employed a two-factor between-subjects design (hierarchical level: high vs. low $\times$ hierarchical type: power vs. status) to simultaneously examine the effects of power and status hierarchies and to compare their differential impacts on recipients' cooperative behavior, as well as to investigate how gratitude mediates these relationships.

Analytical strategy

All analyses were conducted using SPSS 29.0. For Studies 1 and 2, independent samples T-tests were used to examine the effect of hierarchical level on recipients' cooperative behavior within each hierarchy type. Mediation analyses were conducted using Hayes's PROCESS macro (Model 4) with 5000 bootstrapped samples and bias-corrected 95% confidence intervals. Model 4 is a widely used analytical approach for estimating indirect effects (Hayes, 2017) and is appropriate for testing a simple mediation model with one independent variable, one mediator, and one dependent variable. This specification is consistent with our hypotheses concerning the mediating role of gratitude. The PROCESS macro is extensively used in psychology and management research due to its straightforward and robust procedure for estimating indirect effects (Hayes & Rockwood, 2017). For Study 3, a 2 (hierarchical level: high vs. low) $\times$ 2 (hierarchical type: power vs. status) between-subjects ANOVA was conducted to test the main and interaction effects on recipients' cooperative behavior. Bootstrapping analyses with 5000 resamples and bias-corrected 95% confidence intervals were then used to test the indirect effects via gratitude separately for power and status hierarchies, and whether these indirect effects differed significantly.

Study 1

Participants and setting

A priori power analysis using G*Power 3.1 indicated that a minimum sample size of 91 was required to achieve 80% statistical power for an independent samples *t*-test, assuming a medium to large effect size of $d = 0.60$ and a significance level of $\alpha = 0.05$ (Cohen, 1988; Faul et al., 2007). Therefore, we recruited 110 full-time employees in China through the Credamo platform to complete a scenario experiment. After excluding three participants who failed the attention check, 107 valid responses remained. When the hierarchical type is power hierarchy, 54 participants were assigned to the high hierarchical level condition and 53 to the low hierarchical level condition. Each participant received a reward of 5 RMB² after completing the experiment. Among the valid sample, 39.3% were male, with an average age of 32.33 years ($SD = 10.22$). In terms of education, 89.7% held a bachelor's degree or above. Participants included 59 frontline employees, 19 frontline managers, 19 middle managers, and 10 senior managers.

Procedure

Study 1 employed a between-subjects design, in which the hierarchical type was a power hierarchy, with participants randomly assigned to either the high or low hierarchical level condition. First, participants were presented with the

definition of power hierarchy: "Power hierarchy refers to the extent to which individuals control and allocate organizational resources and possess decision-making authority. In the power hierarchy, individuals at high hierarchical levels have greater control over resources and more decision-making authority, whereas those at low hierarchical levels have weaker control and little decision-making authority." To enhance involvement, participants were asked to recall a real team member with a high or low hierarchical level, write down the member's initials, and then complete manipulation check items. Next, they were presented with a workplace scenario: "Suppose that last week, while working on an important task, you encountered a very difficult problem. Despite trying multiple methods, you were unable to solve it. Just when you were distressed about not knowing how to resolve the issue, this team member voluntarily helped you solve the problem." Participants then completed gratitude measures. Subsequently, they were presented with additional scenario information: "The following Monday, during a team meeting, your manager assigned this team member a task that was both complex and urgent." Participants were asked to indicate their willingness to cooperate with the team member on this task, followed by providing demographic information, including gender, age, and education. An attention check item was included to identify careless responses.

Manipulation

In the power hierarchy, hierarchical level was manipulated using materials developed by Blader and Chen (2012). Participants in the high hierarchical level condition read the following: "In the power hierarchy, based on its definition, please list a team member with a high hierarchical level and write down his/her initials." Participants in the low hierarchical level condition read the following: "In the power hierarchy, based on its definition, please list a team member with a low hierarchical level and write down his/her initials."

Measures

All scales employed in this study were based on well-established measures reported in international journals and supported by prior empirical validation. All items were rated on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree).

Manipulation check for hierarchical level. To test the effectiveness of the hierarchical level manipulation when the hierarchical type was a power hierarchy, we used the item "This team member has a great deal of power in the team," adopted from Blader and Chen (2012).

Gratitude. Gratitude was measured with a five-item scale adopted from Uy et al. (2017). The items included "You felt goodwill from this person," "You felt relieved to receive help from this person," "You perceived this person as generous," "You felt grateful to this person," and "You perceived kindness from this person." The scale's Cronbach's α was 0.83.

Cooperative behavior. Cooperative behavior was assessed using a three-item scale developed by Tjosvold et al. (2006). The items included "You are willing to integrate various opinions to help this person complete the

²RMB refers to Renminbi, the official currency of China.

task effectively,” “You are willing to work with this person to find useful methods for completing the task,” and “In this task, you are willing to stand together with him/her through thick and thin.” The scale’s Cronbach’s α was 0.76.

Results

Descriptive statistics and correlations. Table 1 shows the means, standard deviations, correlations, and internal consistencies of the variables.

Manipulation check. When the hierarchical type was a power hierarchy, participants in the high hierarchical level condition reported a significantly higher hierarchical level ($M = 6.24$, $SD = 0.91$) than those in the low hierarchical level condition ($M = 1.87$, $SD = 1.52$), $t(105) = 18.10$, $p < 0.001$, Cohen’s $d = 3.50$. Thus, our manipulation was successful.

Hypothesis testing

Main effect on cooperative behavior. To test the hypotheses, we conducted independent samples t -test. When the hierarchical type was a power hierarchy, participants in the high hierarchical level condition reported significantly greater cooperative behavior ($M = 6.27$, $SD = 0.41$) than those in the low hierarchical level condition ($M = 5.78$, $SD = 1.06$), $t(105) = 3.13$, $p < 0.01$, Cohen’s $d = 0.61$. Therefore, Hypothesis 1 was supported.

Indirect effect via gratitude. The results showed that when the helpers’ hierarchical type was a power hierarchy, helpers’ hierarchical levels were positively related to recipients’ gratitude ($\beta = 0.30$, $SE = 0.14$, $p < 0.05$), and recipients’ gratitude was positively related to cooperative behavior ($\beta = 0.83$, $SE = 0.07$, $p < 0.001$). As shown in Table 2, when the helpers’ hierarchical type was a power hierarchy, the indirect effect was significantly positive ($\beta = 0.25$, $SE = 0.13$, 95% CI = [0.02, 0.52]). Thus, Hypothesis 3 was supported.

Study 2

While Study 1 provided initial evidence for the effect of helpers’ power hierarchy on recipients’ cooperation, it only examined power and did not consider status hierarchy. Therefore, Study 2 focused on status hierarchy to test its effect and the mediating role of gratitude.

Participants and setting

Consistent with Study 1, Study 2 employed a between-subjects design. Prior to data collection, an a priori power analysis conducted using G*Power 3.1 indicated that a minimum of 91 participants was required to achieve 80% statistical power to detect a medium-to-large effect

($d = 0.60$) at $\alpha = 0.05$ (Cohen, 1988; Faul et al., 2007). Therefore, we recruited 110 participants through the Credamo platform to take part in an online experiment. After excluding two participants who failed the attention check, the final sample consisted of 108 valid responses. In the status hierarchy, 54 participants were assigned to the high hierarchical level condition and 54 to the low hierarchical level condition. Each participant received a monetary reward of 5 RMB upon completion. Of the participants, 37% were male, with an average age of 33.11 years ($SD = 11.14$). In terms of educational background, 4.6% participants had a high school degree or below, 1.9% had an associate degree, 75.9% held a bachelor’s degree, 10.2% held a master’s degree, and 7.4% held a doctoral degree. A total of 60 participants were frontline employees, 22 were frontline managers, 16 were middle managers, and 10 were senior managers.

Procedures

Study 2 adopted a between-subjects design in which participants were randomly assigned to either the high or low hierarchical level condition in the status hierarchy. First, participants were presented with the definition of status hierarchy: “Status hierarchy refers to the extent to which an individual is respected or admired by others, as well as their level of prestige. In the status hierarchy, higher hierarchical levels indicate greater respect and acceptance by others, whereas lower hierarchical levels indicate less respect and lower levels of acceptance.” In the status hierarchy, participants were then asked to recall a member in their actual work team who held either a high or low hierarchical level, write down the initials of that member, and complete the manipulation check items. Next, participants read a hypothetical work scenario: “Imagine that last week, while working on an important task, you encountered a particularly difficult problem. Despite trying multiple approaches, you were unable to solve it. At that moment, this team member voluntarily stepped in and helped you resolve the problem.” Afterward, participants completed the gratitude scale. They were then presented with a continuation of the scenario: “The following Monday, during a team meeting, your manager assigned this team member a task that was not only tedious and complex but also highly time-constrained.” Participants were asked to indicate their willingness to cooperate with this team member on the task and to provide demographic information such as gender, age, and education. In addition, an attention check item was included to identify inattentive respondents.

Table 1. Means, standard deviations, correlations, and internal consistencies of study variables (Study 1)

	Mean	SD	1	2	3
1. Hierarchical level	—	—	—		
2. Gratitude	6.01	0.76	0.20*	(0.83)	
3. Cooperative behavior	6.02	0.83	0.29**	0.78***	(0.76)

Note. $N = 107$. SD = standard deviation. Cronbach’s alpha coefficients are shown on the diagonal. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Table 2. Results of mediation analysis (Study 1)

Effect path	Estimate	SE	95% CI	
			LLCI	ULCI
Direct effect	0.24	0.10	0.04	0.44
Indirect effect	0.25	0.13	0.02	0.52
Total effect	0.49	0.15	0.18	0.79

Note. Bootstrapping = 5000.

Manipulation

In the status hierarchy, hierarchical level was manipulated using materials developed by [Blader and Chen \(2012\)](#). Participants in the high hierarchical level condition read: “In the status hierarchy, based on its definition, please identify a member of your team who holds a high hierarchical level and write down the initials of their name.” Participants in the low hierarchical level condition read: “In the status hierarchy, based on its definition, please identify a member of your team who holds a low hierarchical level and write down the initials of their name.”

Measures

All items were rated on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Gratitude was measured using the same scale in Study 1. The scale’s Cronbach’s α was 0.88. Cooperative behavior was assessed with the same three-item scale used in Study 1. The scale’s Cronbach’s α was 0.73.

Manipulation check for hierarchical level. To test the effectiveness of the hierarchical level manipulation when the hierarchical type was a status hierarchy, we used the item “This team member is highly respected in the team,” which was adopted from [Blader and Chen \(2012\)](#).

Results

Descriptive statistics and correlations. [Table 3](#) shows the means, standard deviations, correlations, and internal consistencies of the variables.

Manipulation check. The results of the manipulation check showed that, when the hierarchical type was a status hierarchy, participants in the high hierarchical level condition reported a significantly higher hierarchical level ($M = 6.20$, $SD = 0.66$) than those in the low hierarchical level condition ($M = 3.00$, $SD = 1.51$), $t(106) = 14.34$, $p < 0.001$, Cohen’s $d = 2.76$. This indicated our manipulation was successful.

Hypothesis testing. Main effect on cooperative behavior. To test the hypotheses, we conducted an independent samples T-test. When the hierarchical type was a status hierarchy, participants in the high hierarchical level condition reported significantly greater cooperative behavior ($M = 6.04$, $SD = 0.56$) than those in the low hierarchical level condition ($M = 5.66$, $SD = 0.91$), $t(106) = 2.64$, $p < 0.05$, Cohen’s $d = 0.51$. Thus, Hypothesis 2 was supported.

Indirect effect via gratitude. To test Hypothesis 4, we conducted a bootstrapped analysis using PROCESS Model 4 with 5000 samples ([Hayes, 2017](#)). The results

showed that when the helpers’ hierarchical type was a status hierarchy, helpers’ hierarchical levels were marginally significantly related to recipients’ gratitude ($\beta = 0.29$, $SE = 0.16$, $p = 0.07$). Gratitude was positively associated with cooperative behavior ($\beta = 0.42$, $SE = 0.08$, $p < 0.001$). As shown in [Table 4](#), the indirect effect through gratitude was not significant ($\beta = 0.12$, $SE = 0.08$, 95% CI = $[-0.01, 0.32]$). Therefore, the mediating role of gratitude was not supported, and Hypothesis 4 was not confirmed.

Study 3

Scenario experiments are useful for controlling experimental conditions by establishing specific situations, which helps reduce interference from irrelevant factors ([Bless & Burger, 2016](#)). Studies 1 and 2 provided initial evidence for the effects of helpers’ power and status hierarchies on recipients’ cooperative behavior, but their recall-based manipulations may have introduced uncontrolled variance, such as prior relationship history, thereby weakening potential causal inference. At the same time, neither Study 1 nor Study 2 simultaneously examined power and status hierarchies within the same experimental context, compared their differential effects, or clarified their distinct mechanisms. Study 3 was designed to address these limitations by using a fixed target person and a standardized vignette in which hierarchical type and hierarchical level were directly manipulated. By holding the target person and the helping context constant across conditions, this design reduced the influence of uncontrolled variance while enabling a comparison of power and status hierarchies within a unified experimental framework.

Participants and setting

An a priori power analysis conducted with G*Power 3.1 indicated that a minimum of 180 participants was needed to achieve 80% power for an F-test assuming a medium effect size ($f = 0.25$) at $\alpha = 0.05$. Accordingly, we recruited 240 employees via the Credamo platform. After excluding 15 responses due to excessive completion time or failed attention checks, 225 valid responses remained. Each participant received 8 RMB as compensation. Among the valid sample, 32.9% were male, with an average age of 29.79 years ($SD = 8.01$). In terms of education, 4.0% of participants had a high school degree or below, 8.4% held an associate degree, 66.2% held a bachelor’s degree, 19.6% had a master’s degree, and 1.8% held a doctoral degree. Among the participants, 112 were frontline employees, 44 were frontline managers, 30 were middle managers, and 39 were senior managers.

Procedures

Study 3 adopted a 2 (hierarchical type: power vs. status) $\times$ 2 (hierarchical level: high vs. low) between-subjects factorial design. Participants were randomly assigned to one of the four conditions. Each participant was asked to imagine being a software developer in the R&D department of a large IT company and was presented with the following scenario: “Suppose you are working in the R&D department of a large IT company as a software developer. Last week, while preparing to deliver an important

Table 3. Means, standard deviations, correlations, and internal consistencies of study variables (Study 2)

	Mean	SD	1	2	3
1. Hierarchical level	—	—	—		
2. Gratitude	5.91	0.83	0.18 ⁺	(0.88)	
3. Cooperative behavior	5.85	0.77	0.25**	0.49***	(0.73)

Note. $N = 108$. SD = standard deviation. Cronbach's alpha coefficients are shown on the diagonal. ⁺ $p < 0.1$; ** $p < 0.01$; *** $p < 0.001$.

Table 4. Results of the mediation analysis (Study 2)

Effect path	Estimate	SE	95% CI	
			LLCI	ULCI
Direct effect	0.26	0.13	−0.00	0.52
Indirect effect	0.12	0.08	−0.01	0.32
Total effect	0.38	0.14	0.10	0.67

Note. Bootstrapping = 5000.

software project to a client, you discovered a critical error. Despite multiple attempts, you could not resolve the issue. At this point, Zhao Jun, a colleague in the same department, helped you fix the error." Next, depending on the experimental condition, participants received information describing Zhao Jun's hierarchical type and level. After reading the first scenario, participants completed manipulation check items. They then completed the gratitude scale. Subsequently, they read another scenario: "On Monday, during the department's weekly meeting, the manager assigned Zhao Jun a task that was not only complex and tedious but also urgent." Finally, participants reported their willingness to cooperate with Zhao Jun on the subsequent task and provided demographic information, including gender, age, and education. An attention check was included to screen inattentive responses.

Manipulation

To manipulate the hierarchical types and hierarchical levels, we adopted the procedure developed by Zhang and Wei (2025).

Participants in the power hierarchy condition at different hierarchical levels read the following description of Zhao Jun's character:

"Compared to other team members, Zhao Jun has high (low) power, controls substantial (few) departmental resources, and participates in decision-making about workflows (must follow established workflows)."

Participants in the status hierarchy condition at different hierarchical levels read the following description of Zhao Jun's character:

"Zhao Jun has a positive (negative) reputation and high (low) status within the department. Colleagues like (dislike), respect (disrespect), and fully accept (ostracize) Zhao Jun, who is widely admired (not admired)."

Measures

Manipulation check for hierarchical level. To test the effectiveness of the hierarchical level manipulation, we

used a single item, "Zhao Jun has a high hierarchical level in the department," which was adopted from Zhang and Wei (2025).

Manipulation check for hierarchical type. To assess the effectiveness of the hierarchical type manipulation, we used a bipolar item adopted from Zhang and Wei (2025). Using 0 as the midpoint, ratings closer to −3 indicated that the descriptions better reflected Zhao Jun's power hierarchy, whereas ratings closer to 3 suggested that the descriptions better reflected Zhao Jun's status hierarchy.

Gratitude. Consistent with Studies 1 and 2, gratitude was assessed using the same five-item scale. All items were rated on a 7-point Likert scale. The scale's Cronbach's α was 0.78.

Cooperative behavior. Consistent with Studies 1 and 2, cooperative behavior was assessed using the same three-item scale. All items were rated on a 7-point Likert scale. The scale's Cronbach's α was 0.75.

Results

Descriptive statistics and correlations. Table 5 shows the means, standard deviations, correlations, and internal consistencies of the variables.

Manipulation check. The manipulation check indicated that participants' perceptions of hierarchical level differed significantly between the high hierarchical level condition ($M = 6.31$, $SD = 0.92$) and the low hierarchical level condition ($M = 1.81$, $SD = 1.16$), $t(223) = 36.26$, $p < 0.001$, Cohen's $d = 4.30$. Scores on hierarchical type did not differ significantly between the high hierarchical level condition ($M = 0.21$, $SD = 2.56$) and the low hierarchical level condition ($M = -0.12$, $SD = 2.42$), $t(223) = 1.02$, $p = 0.31$, Cohen's $d = 0.14$. Moreover, the interaction between hierarchical level and hierarchical type on hierarchical level scores was not significant, $F(1, 221) = 0.23$, $p = 0.63$, $\eta^2 = 0.00$. These results indicated that the manipulation of hierarchical level was successful and was not confounded by the hierarchical type manipulation.

The results also confirmed the successful manipulation of hierarchical type. Scores in the power hierarchy condition ($M = -1.78$, $SD = 1.69$) differed significantly from those in the status hierarchy condition ($M = 1.98$, $SD = 1.58$), $t(223) = -17.17$, $p < 0.001$, Cohen's $d = -2.30$. Scores for hierarchical level did not differ significantly between the power hierarchy condition ($M = 4.10$, $SD = 2.44$) and the status hierarchy condition ($M = 3.99$, $SD = 2.45$), $t(223) = 0.35$, $p = 0.73$, Cohen's $d = 0.04$. Two-way analysis of variance (ANOVA) showed that the interaction between hierarchical level and

Table 5. Means, standard deviations, correlations, and internal consistencies of study variables (Study 3)

	Mean	SD	1	2	3	4
1. Hierarchical level	—	—	—			
2. Hierarchical type	—	—	0.01	—		
3. Gratitude	5.88	0.71	0.09	0.02	(0.78)	
4. Cooperative behavior	5.73	0.85	0.30***	0.08	0.59***	(0.75)

Note. $N = 225$. SD = standard deviation. Cronbach's alpha coefficients are shown on the diagonal. *** $p < 0.001$.

type on hierarchical type scores was non-significant, $F(1, 221) = 1.43$, $p = 0.23$, $\eta^2 = 0.01$, indicating that the hierarchical type manipulation was successful and unaffected by hierarchical level manipulation.

Hypothesis testing. Main and interaction effects on cooperative behavior. To test the effects of the helpers' hierarchical type and level on recipients' cooperative behavior, a two-way analysis of variance was performed (see Table 6). The results showed a significant main effect of hierarchical level, $F(1, 221) = 22.17$, $p < 0.001$, $\eta_p^2 = 0.09$, but no significant main effect of hierarchical type, $F(1, 221) = 1.60$, $p = 0.21$, $\eta_p^2 = 0.01$. In addition, the results indicated a non-significant interaction effect of the helpers' hierarchical type and level on recipients' cooperative behavior, $F(1, 221) = 0.62$, $p = 0.43$, $\eta_p^2 = 0.00$. Thus, Hypothesis 5 was not supported.

Furthermore, we conducted a simple effect analysis. When the hierarchical type was a power hierarchy, helpers' hierarchical level had a significant positive effect on recipients' cooperative behavior ($M_{\text{high}} = 6.10$, $SD = 0.62$; $M_{\text{low}} = 5.51$, $SD = 1.03$), $t(114) = 3.74$, $p < 0.001$, Cohen's $d = 0.69$, supporting Hypothesis 1. When the hierarchical type was a status hierarchy, hierarchical level also positively influenced recipients' cooperative behavior ($M_{\text{high}} = 5.88$, $SD = 0.66$; $M_{\text{low}} = 5.45$, $SD = 0.84$), $t(107) = 2.91$, $p < 0.01$, Cohen's $d = 0.57$, supporting Hypothesis 2.

Differentiated indirect effects. As shown in Table 7, gratitude significantly mediated the effect of hierarchical level on cooperative behavior (indirect effect: $\beta = 0.21$, $SE = 0.10$, 95% CI = [0.02, 0.42]), when the hierarchical type was a power hierarchy. Therefore, Hypothesis 3 was supported. When the hierarchical type was a status hierarchy, the indirect effect was non-significant ($\beta = -0.05$, $SE = 0.08$, 95% CI = [-0.20, 0.11]), failing to support Hypothesis 4. Furthermore, the results demonstrated

that helpers' power and status hierarchies had differential indirect effects on recipients' cooperative behavior through recipients' gratitude ($\beta_{\text{DIF}} = 0.25$, $SE = 0.13$, 95% CI = [0.01, 0.51]), thereby supporting Hypothesis 6.

Discussion

Our study examined how helpers' hierarchical characteristics shape recipients' cooperative responses after receiving help across three scenario experiments. Study 1 showed that, in a power hierarchy, recipients were more willing to cooperate with a high-power than a low-power helper, and this effect was mediated by gratitude. Study 2 showed that, in a status hierarchy, recipients were also more willing to cooperate with a high-status than a low-status helper, but gratitude did not mediate this relationship. Study 3 replicated and integrated these findings using a 2×2 design. Hierarchical level increased recipients' cooperative behavior in both power and status conditions, and this main effect did not differ significantly across hierarchical types. However, the indirect effect through gratitude differed significantly between power and status hierarchies. Thus, Hypotheses 1, 2, 3, and 6 were supported, whereas Hypotheses 4 and 5 were not. Taken together, these findings suggest that higher hierarchical level generally promotes recipients' cooperation after receiving help, but the indirect effect of helpers' status hierarchy on cooperation through gratitude was not significant. This discrepancy likely reflects the nature of status hierarchy. High-status individuals are generally respected and admired by others, making their helping behaviors more expected and less likely to elicit gratitude, while low-status individuals are less recognized, rendering their help similarly ineffective in generating gratitude. Although not all hypotheses were fully supported, the

Table 6. ANOVA results for cooperative behavior (Study 3)

Source	SS	df	MS	F	η_p^2
Hierarchical level	14.44	1	14.44	22.17***	0.09
Hierarchical type	1.04	1	1.04	1.60	0.01
Hierarchical level $\times$ Hierarchical type	0.41	1	0.41	0.62	0.00
Error	143.98	221	0.65		
Total	7559.89	225			

Note. $N = 225$. *** $p < 0.001$. SS = sum of squares; df = degrees of freedom; MS = mean square; η_p^2 = partial eta squared.

Table 7. Comparison of indirect effects across hierarchical types (Study 3)

Hierarchical type	Indirect effect	SE	95% CI	
			LLCI	ULCI
Power hierarchy→Gratitude→ Cooperation	0.21	0.10	0.02	0.42
Status hierarchy→Gratitude→ Cooperation	−0.05	0.08	−0.20	0.11
Difference (Power hierarchy–Status hierarchy)	0.25	0.13	0.01	0.51

Note. Bootstrapping = 5000.

results provide empirical evidence clarifying the differential effects of power hierarchy versus status hierarchy in organizational contexts.

Implications for theory

Our study offers several important theoretical contributions. First, our study extends the helping literature by examining recipients' responses to help from the perspective of helpers' hierarchical characteristics. Prior research on workplace helping has primarily focused on the consequences of helping for helpers themselves, such as their subsequent emotions, behaviors, or evaluations (Han et al., 2020; Hong et al., 2025; Watkins et al., 2022). Although Harari et al. (2022) examined recipients' responses by distinguishing between anticipatory helping and reactive helping based on the nature of helping behavior and examining their effects on recipients' evaluations of helpers' performance, existing research has not further examined whether and how helpers' hierarchical characteristics shape recipients' behavior. Therefore, we further distinguish between two hierarchical types—power and status—and examine their effects on recipients' cooperative behavior after receiving help, while also comparing their differences in terms of outcomes and underlying mechanisms. In doing so, our study not only advances a recipient-centered perspective in the helping literature, but also provides a more fine-grained understanding of how different forms of hierarchy operate in helping contexts.

Second, we refine the application of SET in helping contexts by showing that positive reciprocity depends not only on whether help is received, but also on who provides that help. A central tenet of SET is that beneficial treatment elicits positive reciprocity (Cropanzano et al., 2017; Cropanzano & Mitchell, 2005). Our findings generally support this logic, showing that recipients are more willing to engage in cooperative behavior when help comes from a higher-level helper. At the same time, we extend the general prediction by suggesting that help from high-power and high-status actors may carry different exchange meanings. Specifically, help from a high-power actor is more likely to be interpreted as instrumental resource support associated with resource control and decision authority, whereas help from a high-status actor is more likely to be understood as conveying symbolic value, such as respect, recognition, and relational affirmation. By distinguishing between these two forms of exchange meaning, our study advances SET beyond a general reciprocity logic toward a more nuanced understanding of exchange content and exchange meaning.

Third, we incorporate attribution theory as a complementary lens to SET to better explain the differential effects of power and status. While SET explains why help from higher-level actors generally promotes recipients' cooperative behavior, it is less effective in explaining why gratitude operates differently across power and status hierarchies. Our findings show that although both hierarchies enhance cooperative behavior, gratitude mediated only the effect of power hierarchy and not that of status hierarchy. This suggests that recipients' responses to help depend not only on receiving help, but also on how they interpret its meaning. Accordingly, attribution theory complements SET by clarifying why different hierarchical characteristics may shape cooperation through different psychological pathways.

Implications for practice

This study also provides several managerial implications. First, individuals occupying higher hierarchical levels in organizations are more likely to elicit cooperative behavior from recipients when they engage in helping behavior. In the context of the knowledge economy, organizations often face complex and dynamic environmental challenges, making cooperative behavior among members particularly important. Cooperative behaviors foster a culture of solidarity and mutual support, enabling employees to collaboratively address tasks and challenges. This, in turn, strengthens interpersonal relationships and enhances overall organizational performance. Practically, managers should encourage high-level individuals to remain attentive to colleagues' needs and to offer assistance proactively. By promoting such helping behaviors, high hierarchical level individuals can stimulate recipients' willingness to cooperate, thereby improving organizational outcomes and supporting sustainable and efficient development. Cultivating a culture of mutual assistance equips organizations to respond more effectively to challenges and drive continuous innovation.

Second, our study identifies gratitude as a key psychological mechanism arising when individuals receive help from helpers in a power hierarchy. The findings indicate that a helper's power hierarchy enhances recipients' gratitude, which in turn promotes cooperative behavior. Therefore, managers should guide high-power individuals to recognize the impact of their helping behaviors on recipients' gratitude and subsequent cooperation. Encouraging approach-oriented behaviors, reducing social distance, attending to colleagues' psychological needs, and proactively offering support can help high-power actors strengthen interpersonal relationships, resolve challenges

faced by members, and enhance organizational cohesion, commitment, and stability.

Limitations and future directions

This study inevitably has some limitations. First, although the scenario experimental approach facilitates causal inference and enhances internal validity, it also entails certain constraints. All three studies relied on a single-source design, with core variables reported by the same participants, raising potential concerns about common method variance. In addition, although the scenarios were designed to realistically capture helper–recipient interactions, they may not fully reflect the nuanced perceptions and experiences of individuals in real workplace settings. Moreover, because the studies assessed behavioral intentions rather than actual behaviors, the external validity of the findings may be constrained. Finally, the manipulation checks for hierarchical levels relied on single-item measures. Although this approach is common in experimental research when the goal is to verify manipulation success rather than assess a latent construct (Konstabel et al., 2012), it may offer less robust psychometric evidence than multi-item scales. Future research could therefore collect multi-source data, adopt quasi-experimental designs, and employ multi-item manipulation checks to examine how helpers' hierarchical characteristics influence recipients' cooperative behavior in authentic organizational contexts.

Second, although SET provides an important foundation for explaining why recipients reciprocate beneficial exchange, our findings show that gratitude mediated only the effect of power hierarchy on cooperative behavior, but not that of status hierarchy. This suggests that gratitude is not a universal mechanism linking helpers' hierarchical characteristics to cooperative reciprocity, but rather a context-specific mediating pathway. Accordingly, the effect of status hierarchy on cooperative behavior may depend on psychological processes other than gratitude. Future research could therefore draw on signaling theory to examine alternative mediators that may be more relevant under status hierarchy, such as sense of belonging or perceived recognition. Doing so would advance understanding of why power and status hierarchies operate through different psychological pathways in shaping recipients' cooperative behavior following helping interactions.

Third, our study did not consider the potential influence of broader contextual factors on the relationship between helpers' hierarchy (i.e., power and status) and recipients' cooperative behavior. Recipients may interpret help from helpers with different hierarchical characteristics differently depending on societal values, national culture, and organizational management practices, which may in turn shape their subsequent cooperative behavior. As such, these broader contextual factors may constrain the generalizability of our findings. Future research could therefore examine more specific boundary conditions, such as collectivism, power distance, and organizational cooperative climate, to better understand when helpers' hierarchical characteristics influence recipients' cooperative behavior.

Conclusion

Our paper demonstrates that helpers' hierarchical characteristics influence recipients' cooperation following helping interactions. Helpers' power and status hierarchies enhance recipients' cooperation. Moreover, gratitude mediates the effect of helpers' power hierarchy on recipients' cooperation, whereas the mediating role of gratitude in the relationship between helpers' status hierarchy and cooperation is not supported. This study contributes to a deeper understanding of how hierarchical characteristics (hierarchical levels and types) among helpers influence recipients' cooperative behavior.

Acknowledgement: Not applicable.

Funding Statement: The preparation of this article was supported by grants from the Philosophy and Social Science Planning Project of Gansu Province (grant number: 2025QN11), the National Natural Science Foundation of China (grant number: 72562024), the Soft Science Special Project of Gansu Basic Research Plan (grant number: 25JRZA123) and the 2025 Annual Humanities and Social Sciences Cultivation Fund Project of Lanzhou University of Technology.

Author Contributions: The authors confirm contribution to the paper as follows: study conception and design: Chao Zhang; data collection: Chao Zhang; analysis and interpretation of results: Chao Zhang; draft manuscript preparation: Chao Zhang, Yi Chen and Dexin Hu. All authors reviewed and approved the final version of the manuscript.

Availability of Data and Materials: The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Ethics Approval: Ethics approval was granted by the Academic Ethics Committee of Lanzhou University of Technology. Informed consent was obtained from all participants before data collection.

Conflicts of Interest: The authors declare no conflicts of interest.

References

- Anderson, C., Hildreth, J. A. D., & Howland, L. (2015). Is the desire for status a fundamental human motive? A review of the empirical literature. *Psychological Bulletin*, 141(3), 574–601. <https://doi.org/10.1037/a0038781>
- Anderson, C., Hildreth, J. A. D., & Sharps, D. L. (2020). The possession of high status strengthens the status motive. *Personality and Social Psychology Bulletin*, 46(12), 1712–1723. <https://doi.org/10.1177/0146167220937544>
- Anicich, E. M., Lee, A. J., & Liu, S. (2022). Thanks, but no thanks: Unpacking the relationship between relative power and gratitude. *Personality and Social Psychology Bulletin*, 48(7), 1005–1023. <https://doi.org/10.1177/01461672211025945>
- Bai, F., Ho, G. C. C., & Liu, W. (2020a). Do status incentives undermine morality-based status attainment? Investigating

- the mediating role of perceived authenticity. *Organizational Behavior and Human Decision Processes*, 158(2), 126–138. <https://doi.org/10.1016/j.obhdp.2019.04.005>
- Bai, F., Ho, G. C. C., & Yan, J. (2020b). Does virtue lead to status? Testing the moral virtue theory of status attainment. *Journal of Personality and Social Psychology*, 118(3), 501–531. <https://doi.org/10.1037/pspi0000192>
- Blader, S. L., & Chen, Y.-R. (2012). Differentiating the effects of status and power: A justice perspective. *Journal of Personality and Social Psychology*, 102(5), 994–1014. <https://doi.org/10.1037/a0026651>
- Blader, S. L., Shirako, A., & Chen, Y.-R. (2016). Looking out from the top: Differential effects of status and power on perspective taking. *Personality and Social Psychology Bulletin*, 42(6), 723–737. <https://doi.org/10.1177/0146167216636628>
- Blau, P. (1964). *Exchange and Power in Social Life*. Hoboken, NJ, USA: John Wiley & Sons.
- Bless, H., & Burger, A. M. (2016). A closer look at social psychologists' silver bullet: Inevitable and evitable side effects of the experimental approach. *Perspectives on Psychological Science*, 11(2), 296–308. <https://doi.org/10.1177/1745691615621278>
- Chernyak-Hai, L., Heller, D., SimanTov-Nachlieli, I., & Weiss-Sidi, M. (2024). Give them a fishing rod, if it is not urgent: The impact of help type on support for helpers' leadership. *Journal of Applied Psychology*, 109(4), 551–572. <https://doi.org/10.1037/apl0001155>
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences*. (2nd ed.). Hillsdale, NJ, USA: Lawrence Erlbaum Associates.
- Cropanzano, R., Anthony, E. L., Daniels, S. R., & Hall, A. V. (2017). Social exchange theory: A critical review with theoretical remedies. *Academy of Management Annals*, 11(1), 479–516. <https://doi.org/10.5465/annals.2015.0099>
- Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management*, 31(6), 874–900. <https://doi.org/10.1177/0149206305279602>
- Deng, C., Liao, S., Liu, Z., Zhang, Y., & Bao, Y. (2020). Informal status and taking charge: The different roles of OBSE, PJ fit, and PS fit. *Frontiers in Psychology*, 11, 01994. <https://doi.org/10.3389/fpsyg.2020.01994>
- Doyle, S. P., Lount, R. B., Wilk, S. L., & Pettit, N. C. (2016). Helping others most when they are not too close: Status distance as a determinant of interpersonal helping in organizations. *Academy of Management Discoveries*, 2(2), 155–174. <https://doi.org/10.5465/amd.2014.0104>
- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G* Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39(2), 175–191. <https://doi.org/10.3758/BF03193146>
- Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. *American Sociological Review*, 25(2), 161–178. <https://doi.org/10.2307/2092623>
- Gu, Z. (2025). Are high-hierarchy individuals more corrupt? The interaction of power and two forms of status on corruption. *Journal of Business Ethics*, 205(3), 563–574. <https://doi.org/10.1007/s10551-025-06124-4>
- Han, M., Sun, Z., & Li, L. (2020). Helping behavior and employee creativity: The combined roles of mastery and performance motivation climates. *Social Behavior and Personality: An International Journal*, 48(12), 1–11. <https://doi.org/10.2224/sbp.9461>
- Harari, D., Parke, M. R., & Marr, J. C. (2022). When helping hurts helpers: Anticipatory versus reactive helping, helper's relative status, and recipient self-threat. *Academy of Management Journal*, 65(6), 1954–1983. <https://doi.org/10.5465/amj.2019.0049>
- Hayes, A. F. (2017). *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach*. New York, NY, USA: Guilford publications.
- Hayes, A. F., & Rockwood, N. J. (2017). Regression-based statistical mediation and moderation analysis in clinical research: Observations, recommendations, and implementation. *Behaviour Research and Therapy*, 98, 39–57. <https://doi.org/10.1016/j.brat.2016.11.001>
- Hong, J., Steigerwald, N., Jex, S. M., & Park, J. (2025). When helping succeeds and fails: A dual-path model of proactive helping behavior. *Journal of Applied Social Psychology*, 55(6), 401–412. <https://doi.org/10.1111/jasp.13100>
- Junça-Silva, A., Mosteo, L., & Lopes, R. R. (2023). The role of mindfulness on the relationship between daily micro-events and daily gratitude: A within-person analysis. *Personality and Individual Differences*, 200(46), 111891. <https://doi.org/10.1016/j.paid.2022.111891>
- Kelley, H. H., & Michela, J. L. (1980). Attribution theory and research. *Annual Review of Psychology*, 31(1), 457–501. <https://doi.org/10.1146/annurev.ps.31.020180.002325>
- Keltner, D., Gruenfeld, D. H., & Anderson, C. (2003). Power, approach, and inhibition. *Psychological Review*, 110(2), 265–284. <https://doi.org/10.1037/0033-295X.110.2.265>
- Kim, S., Lucas, B. J., & Goncalo, J. A. (2023). Low power warm-up effect: Understanding the effect of power on creativity over time. *Journal of Experimental Social Psychology*, 107(2), 104474. <https://doi.org/10.1016/j.jesp.2023.104474>
- Konstabel, K., Lönnqvist, J. E., Walkowitz, G., Konstabel, K., & Verkasalo, M. (2012). The 'short five'(S5): Measuring personality traits using comprehensive single items. *European Journal of Personality*, 26(1), 13–29. <https://doi.org/10.1002/per.813>
- Körner, R., Overbeck, J. R., & Schütz, A. (2025). Structuring hierarchy concepts: Evaluating measures of power, status, dominance, and prestige on the basis of an integrative model and systematic literature review. *Psychological Bulletin*, 151(3), 322–364. <https://doi.org/10.1037/bul0000470>
- Li, Y., Qin, X., Wang, Y., Li, W., Gan, Y., et al. (2026). Nice guys finish last? Investigating how and when follower helping behavior leads to leader exploitation behavior. *Current Psychology*, 45(3), 294. <https://doi.org/10.1007/s12144-025-08752-5>
- Liu, Z., Luan, M., Li, H., Stoker, J. I., & Lammers, J. (2024). Psychological power increases the desire for social distance but reduces the sense of social distance. *Journal of Experimental Social Psychology*, 110(4), 104528. <https://doi.org/10.1016/j.jesp.2023.104528>
- Locklear, L. R., Sheridan, S., & Kong, D. T. (2023). Appreciating social science research on gratitude: An integrative review for organizational scholarship on gratitude in the workplace. *Journal of Organizational Behavior*, 44(2), 225–260. <https://doi.org/10.1002/job.2624>
- Lyons, B. J., & Scott, B. A. (2012). Integrating social exchange and affective explanations for the receipt of help and harm: A social network approach. *Organizational Behavior and Human Decision Processes*, 117(1), 66–79. <https://doi.org/10.1016/j.obhdp.2011.10.002>

- Ma, L. K., Tunney, R. J., & Ferguson, E. (2017). Does gratitude enhance prosociality? A meta-analytic review. *Psychological Bulletin*, 143(6), 601–635. <https://doi.org/10.1037/bul0000103>
- MacKenzie, M. J., & Baumeister, R. F. (2019). Motivated gratitude and the need to belong: Social exclusion increases gratitude for people low in trait entitlement. *Motivation and Emotion*, 43(3), 412–433. <https://doi.org/10.1007/s11031-018-09749-3>
- Magee, J. C., & Galinsky, A. D. (2008). Social hierarchy: The self-reinforcing nature of power and status. *Academy of Management Annals*, 2(1), 351–398. <https://doi.org/10.5465/19416520802211628>
- Magee, J. C., & Smith, P. K. (2013). The social distance theory of power. *Personality and Social Psychology Review*, 17(2), 158–186. <https://doi.org/10.1177/1088868312472732>
- Mei, W., Zoghbi-Manrique-de-Lara, P., & Wu, J. (2025). Sour grapes: Exploring unfavorable reactions of employees who observe leader leniency. *Journal of Business Ethics*, 202(1), 55–72. <https://doi.org/10.1007/s10551-025-05927-9>
- Obeng, A. F., & Zhu, Y. (2025). Do coping strategies play a role? Examining the effects of abusive supervision and work engagement on employees' helping behavior. *Journal of Psychology in Africa*, 35(4), 505–512. <https://doi.org/10.32604/jpa.2025.070121>
- Park, Y., Nault, K., & Kuwabara, K. (2024). When brokers don't broker: Mitigating referral aversion in third-party help exchange. *Organizational Behavior and Human Decision Processes*, 180(1), 104294. <https://doi.org/10.1016/j.obhdp.2023.104294>
- Pryor, J. B., & Kriss, M. (1977). The cognitive dynamics of salience in the attribution process. *Journal of Personality and Social Psychology*, 35(1), 49–55. <https://doi.org/10.1037/0022-3514.35.1.49>
- Smith, A., Pedersen, E. J., Forster, D. E., McCullough, M. E., & Lieberman, D. (2017). Cooperation: The roles of interpersonal value and gratitude. *Evolution and Human Behavior*, 38(6), 695–703. <https://doi.org/10.1016/j.evolhumbehav.2017.08.003>
- Soderberg, A. T., & Howe, D. (2021). Can you expect those with status to be ethical? The effects of status on trust. *Ethics & Behavior*, 31(6), 395–418. <https://doi.org/10.1080/10508422.2020.1819282>
- Tjosvold, D., Law, K. S., & Sun, H. (2006). Effectiveness of Chinese teams: The role of conflict types and conflict management approaches. *Management and Organization Review*, 2(2), 231–252. <https://doi.org/10.1111/j.1740-8784.2006.00040.x>
- Tyler, T. R., & Blader, S. L. (2003). The group engagement model: Procedural justice, social identity, and cooperative behavior. *Personality and Social Psychology Review*, 7(4), 349–361. https://doi.org/10.1207/S15327957PSPR0704_07
- Uy, M. A., Lin, K. J., & Ilies, R. (2017). Is it better to give or receive? The role of help in buffering the depleting effects of surface acting. *Academy of Management Journal*, 60(4), 1442–1461. <https://doi.org/10.5465/amj.2015.0611>
- Van Kleef, G. A., & Lange, J. (2020). How hierarchy shapes our emotional lives: Effects of power and status on emotional experience, expression, and responsiveness. *Current Opinion in Psychology*, 33, 148–153. <https://doi.org/10.1016/j.copsyc.2019.07.009>
- Van Kleef, G. A., & Lelieveld, G.-J. (2022). Moving the self and others to do good: The emotional underpinnings of prosocial behavior. *Current Opinion in Psychology*, 44, 80–88. <https://doi.org/10.1016/j.copsyc.2021.08.029>
- Watkins, T., Lee, S. H., Yam, K. C., Zhan, Y., & Long, L. (2022). Helping after dark: Ambivalent leadership outcomes of helping followers after the workday. *Journal of Organizational Behavior*, 43(6), 1038–1062. <https://doi.org/10.1002/job.2613>
- Witkower, Z., Mercadante, E. J., & Tracy, J. L. (2020). How affect shapes status: Distinct emotional experiences and expressions facilitate social hierarchy navigation. *Current Opinion in Psychology*, 33, 18–22. <https://doi.org/10.1016/j.copsyc.2019.06.006>
- Yang, N. (2025). Impact of the usage of robots on employee workplace objectification and helping behavior: The moderating role of collectivism. *Asia Pacific Journal of Management*. <https://doi.org/10.1007/s10490-025-10029-1>
- Zeigler-Hill, V., & Dehaghi, A. M. B. (2023). Narcissism and psychological needs for social status, power, and belonging. *Personality and Individual Differences*, 210(3), 112231. <https://doi.org/10.1016/j.paid.2023.112231>
- Zhang, C., & Wei, X. (2024). Differentiating the effects of power and status on unethical behavior: A moderated mediation meta-analysis. *Journal of Business and Psychology*, 39(4), 871–896. <https://doi.org/10.1007/s10869-023-09919-2>
- Zhang, C., & Wei, X. (2025). Are wrongdoers with high hierarchy more likely to be subjected to negative gossip? An attributional perspective. *Personnel Review*, 54(6), 1598–1620. <https://doi.org/10.1108/PR-04-2024-0325>