



## Why and when others reciprocate my knowledge sharing in work teams: Attribution of intention and social values

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Knowledge sharing is a fundamental method for transferring expertise among individuals and capitalizing on knowledge resources. In this study we used attribution theory to explore why and when people reciprocate in text context of knowledge sharing. We conducted a field survey of 94 leaders and 334 members of their teams and demonstrated that team members reciprocated knowledge sharing because they attributed the knowledge sharers' intentions to internal reasons. Moreover, this tendency was strengthened when knowledge sharers held prosocial, collectivistic values compared to when they hold proself, individualistic values. We have contributed to the knowledge and organizational literature by examining the two-way knowledge exchange process and establishing attribution theory as a core underlying mechanism in the process.

### Keywords

knowledge sharing;  
knowledge transfer; social  
values; reciprocation;  
motivation; motive  
attribution

### Article Highlights

- People reciprocated knowledge sharing because they attributed the knowledge sharers' intentions to internal reasons.
- Reciprocation tendency was strengthened when knowledge sharers held prosocial, collectivistic values.
- This study investigated the two-way knowledge exchange process and established attribution theory as a core underlying mechanism in the process.

Knowledge is a critical resource that enables organizations to sustain competitive advantage and survive in increasingly dynamic and turbulent business operating environments (Mahdi et al., 2019). To enable the exploitation of knowledge for performance gains, employees should engage in knowledge sharing so that they can transfer expertise and capitalize on knowledge resources (Kim & Yun, 2015). Given that individuals are the locus of action in sharing knowledge, whether people who share their knowledge benefit through such a constructive behavior toward others and achieve superior performance is an important aspect that should be understood (Rhee & Choi, 2017). Complementing the prevailing focus on the one-way sharing of knowledge, in this study we examined the two-way process of initial knowledge sharing followed by others' reciprocation to elaborate on why and when others reciprocate by sharing their knowledge.

Because of the value of creation of knowledge for individuals and organizations, it would be valuable to understand how two-way knowledge exchanges through reciprocation among members develops (Mahdi et al., 2019). The more knowledge is shared and the more this sharing is reciprocated by others, the more individuals can contribute to and benefit from the collective knowledge stock and can promote knowledge flow to further enhance individual and collective performance (Ahmad & Karim, 2019). Despite the initiation of knowledge sharing by an individual, others' reciprocation of sharing their own knowledge with that focal person does not come automatically. The reason is the inherent motivational dilemma involving knowledge sharing arising from losing an exclusive advantage from having that knowledge once it is shared (Cabrera & Cabrera, 2002). Such an uncertainty around reciprocation significantly inhibits individuals from sharing their knowledge, thereby ultimately limiting the overall knowledge flow within an organization, which also negatively affects their task performance (Wang & Noe, 2010). Thus, it is necessary to establish why and when knowledge sharing is reciprocated in order to generate a virtuous cycle of knowledge exchange among employees, thereby forming the basis of knowledge-based value creation for teams and organizations (Jiang & Chen, 2018).

We drew on attribution theory, which offers insights into how people perceive and explain the social behaviors of a focal person (Heider, 1958), and posited that the receiver's internal attribution of a focal member's knowledge-sharing behavior would urge the receiver to engage in reciprocation. As a form of social exchange, in the work setting, reciprocating a focal member's knowledge sharing can be partially an obligation, but is generally a form of discretionary or prosocial behavior (Baker & Bulkley, 2014). Thus, other members should be motivated to engage in voluntary payback to the focal member. This motivational process is driven by the way others attribute the focal member's knowledge sharing to either internal or external causes (Martinko & Mackey, 2019). When others are recipients of knowledge shared by the focal member, if they attribute such behavior to self-interested instrumental causes, then they may not reciprocate. By contrast, they may reciprocate when they attribute the behavior to genuine motivation to help.

Given that the attribution process is the core psychological mechanism underlying reciprocation, we identified the congruence of social values of a focal member and the knowledge-sharing behavior as a driver of others' attribution patterns. Research on attribution theory indicates that the social values of a focal actor affect others' perceptions of the actor's social behavior (Morgan et al., 2010). For example, when social values and behavior match well, such as when prosocial or collectivistic people share their knowledge, others will very likely attribute the behavior to internal reasons (van Hoorn, 2014).

## **Conceptual Framework and Hypotheses**

*Knowledge sharing* refers to “the provision of task information and know-how to help others and to collaborate with others to solve problems, develop new ideas, or implement policies and procedures” (Wang & Noe, 2010, p. 117). Knowledge sharing is often considered a citizenship behavior that requires significant time and effort (Trong Tuan, 2017). The focus in previous research has mostly been on identifying predictors of knowledge sharing, such as examining environmental factors, individual characteristics, and motivational factors (Wang & Noe, 2010). However, there has been little research conducted on how manifested knowledge-sharing behavior affects the reciprocal behaviors of others who receive the knowledge (Henttonen et al., 2016). Understanding the reciprocation of others is critical because this process enables the exchange and active flow of knowledge, which is the key to knowledge creation and a high standard of performance (Perry-Smith, 2014). In this study we explored why and under what conditions others reciprocate receiving knowledge by sharing their own knowledge with the focal person.

## **Reciprocated Knowledge Sharing**

There has been considerable research on knowledge sharing at the individual level, with many scholars drawing on the role of reciprocation (Černe et al., 2014; Rhee & Choi, 2017). We found it surprising that this fundamental process has been taken for granted but not actually tested (see, e.g., Rhee & Choi, 2017). To

examine the relationship between a focal member's knowledge sharing and other members' reciprocation, we grounded our argument on the norms of reciprocity described in social exchange theory (Cropanzano & Mitchell, 2005). In this field of research, the reciprocity norm is the best known exchange rule that explains transactional patterns of exchanges among interdependent parties (Cropanzano & Mitchell, 2005). In work teams, the notion of reciprocity holds as a moral norm that governs interpersonal exchanges among members who are interdependent in performance of team tasks. To enforce such norms, members often develop trust and cultural mandates, in which those who do not comply in reciprocating will be punished (Swärd, 2016). Accordingly, we argued that when members in a work team receive knowledge from another team member, they will reciprocate by sharing their own knowledge with that focal member.

**Hypothesis 1:** Knowledge sharing by a team member will be positively related to reciprocated knowledge sharing by other members.

### **Internal Attribution as an Intermediate Psychological Mechanism**

We further elaborated on the psychological mechanism accounting for the knowledge-sharing reciprocation process. In particular, we argued that others' reciprocation decision depends on how they attribute the knowledge sharing exhibited by a focal member (Wang & Noe, 2010). According to attribution theory people attribute the behavior of others either to internal personal reasons or to external situational causes, thereby evoking distinct interpretations of the behavior that result in subsequent reactions (Martinko & Mackey, 2019). Thus, we posited that a focal member's knowledge sharing would elicit others' attribution of the behavior either to an internal, genuine motivation to help or to external forces or instrumental reasons. When a focal member shares knowledge and has a good reputation or relationship with other team members, those other members are likely to attribute the focal member's behavior to their genuine motivation to help others, so that the other members are thereby motivated to reciprocate (Wang & Noe, 2010). This internal attribution will also reduce the uncertainty or risk perceptions of the other members and will enhance their willingness to take risks by sharing their own knowledge with the focal member (Park & Kim, 2018). Thus, we hypothesized that internal attribution would mediate the relationship between a focal member's knowledge sharing and others' reciprocation.

**Hypothesis 2:** Internal attribution will mediate the positive effect of a focal member's knowledge sharing on other members' reciprocation of knowledge sharing.

### **Social Values as a Boundary Condition for Reciprocation**

If internal attribution is the main psychological mechanism in what others undergo in deciding whether to reciprocate knowledge sharing, then the natural question to ask is under what conditions they will attribute internally. In this regard, we focused on a focal member's social values as a moderating contingency that affects the attribution process (Sun et al., 2019). *Social values* are people's other-regarding versus self-regarding preferences (Van Lange, 2000), thereby reflecting prosocial or proself values (Hu & Liden, 2015). Individuals whose values are *prosocial* are primarily concerned with contributing to benefits to others, whereas individuals whose values are *proself* are primarily concerned with calculating personal returns (Bolino & Grant, 2016). Prosocial or proself values of knowledge sharers may provide a consistent signal related to their behavioral tendencies in social settings (Wang & Noe, 2010). The congruence of social values of knowledge sharers and their behaviors may affect others' attributions (Sun et al., 2019). Individuals who are motivated by prosocial values tend to cooperate in general and willingly contribute to the collective goal (Hewett et al., 2019), so that when team members observe the knowledge sharing of a focal member who has prosocial or collectivistic values, they may attribute such behavior to an internal, genuine motivation to help others (Gardner et al., 2019). By contrast, when a focal member with proself or individualistic values shares knowledge, inconsistency arises between that individual's values and behaviors. Accordingly, other team members are unlikely to attribute the focal member's behavior to internal reasons; instead, they will attribute it to external reasons, including the goal of obtaining political benefits or to an apparent expectation of rewards (De Cremer & Van Lange, 2001), which makes them doubt that the focal member's intention was to help them and increases their concerns about being exploited when they reciprocate

(Gardner et al., 2019). Therefore, we proposed the following moderation mediation hypothesis:

**Hypothesis 3:** The social values of a focal member will moderate the indirect effect of their knowledge sharing on others' reciprocation through the others' internal attribution, such that the indirect effect will be stronger when others attribute collectivistic (vs. individualistic) values.

## Method

### Participants

We collected data by contacting graduates of a major South Korean business school and obtaining the cooperation of 105 team leaders employed in various industries. Of the 105 teams we contacted, after discarding unmatched surveys, 94 leaders and 334 members in their teams returned completed surveys (response rate = 89.5%). The sampled teams performed various functions, including service (22.7%), finance/insurance (19.0%), manufacturing (12.1%), technology/communication (4.8%), public service (5.1%), and others (36.3%). The final sample of the team members included 180 (53.9%) men and 154 (46.1%) women, with a mean age of 34.16 years ( $SD = 7.84$ , range = 23–55). In terms of education level, 26.8% had completed high school or less, 52% had a bachelor's degree (including 2-year college), and 21.2% had a graduate degree. On average, team members reported 2.52 years ( $SD = 2.82$ ; range = 0.5–7.5) and 5.80 years ( $SD = 5.86$ ; range = 0.5–17) of team and organizational tenure, respectively.

### Procedure

We obtained ethical approval for our study before our data collection. The members and leaders of the organizational work teams completed different versions of the paper-and-pencil survey on site. The cover letter introduced this research as a study for effective team management with an assurance of anonymity and confidentiality of their responses. The letter also clearly stated that the participants could opt out any time if they felt uncomfortable in responding to the survey items. Once team members and leaders had completed the survey, they individually sealed the survey form in the envelope provided and returned it to the research team. We gave all participants a USD 10.00 gift certificate as a reward for their participation.

### Measures

To assess the study constructs, we adopted or modified scales developed and tested in previous studies. The items were translated from English to Korean and then back-translated to English by professors and doctoral students who are proficient in both English and Korean to ensure the validity of the translated items. Items were rated using a 5-point Likert scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*. All alpha values given below relate to the results of this study.

#### **Collectivistic and Individualistic Values**

We utilized the measures developed by Connelly et al. (2012) to evaluate social values. Team members reported their collectivistic values by responding to a four-item scale ( $\alpha = .75$ , e.g., "I concentrate on achieving my group's goals"), and rated individualistic values using a separate four-item scale ( $\alpha = .66$ , e.g., "I concentrate on achieving my own personal goals").

#### **Knowledge Sharing**

We adopted items from Connelly et al. (2012) and used four items to assess knowledge sharing ( $\alpha = .79$ ). A sample item is "I told my coworkers exactly what they needed to know."

#### **Reciprocated Knowledge Sharing**

Team members also rated the degree of knowledge-sharing reciprocation by other team members using the same four items of knowledge sharing ( $\alpha = .83$ , e.g., "My coworkers told me exactly what I needed to know").

**Internal Attribution**

To assess a focal member’s internal attributions, we used the internal attribution measure of Eberly et al. (2017). Other team members rate whether they attributed the knowledge sharing of the focal member to internal personal reasons or to external situational causes. The scale consists of the following question ( $\alpha = .71$ ): “Why do you think this team member shared knowledge with you (a) because of their personality or (b) because of their own values.”

**General Performance**

Team leaders assessed the general task performance of each team member. We employed the three items on task performance ( $\alpha = .85$ ) developed by Heilman et al. (1992): “This employee gets their work done very effectively,” “This employee is very competent in carrying out the task,” and “This employee has performed their job well.”

**Control Variables**

We controlled for gender, education level, rank in the workplace hierarchy, and task interdependence because knowledge-sharing behavior can be explained by individual differences and workplace context (Wang & Noe, 2010). Education level was dummy coded: 0 = high school graduate and below, 1 = two years of college and above. Rank was assessed using two categories: 0 = staff member, 1 = manager. We also included the level of task interdependence as reported by each member through a single item: “To complete my work, I need to work together with my teammates” (Pearce & Gregersen, 1991).

**Results**

Prior to the hypothesis testing, we verified the empirical distinctiveness of the main study variables by conducting a confirmatory factor analysis. The results show the model had a good fit to the data,  $\chi^2 (df = 204) = 5,892.98, p < .05$ , comparative fit index = .90, root mean square error of approximation = .05, standardized root mean square residual = .07. The proposed model was a better fit than all the alternative measurement models (all  $\Delta\chi^2$  tests,  $p < .01$ ). Thus, we proceeded to test the hypothesized relationships using three constructs. Table 1 presents the descriptive statistics and correlations for the study variables.

Table 1. *Descriptive Statistics and Correlations for Study Variables*

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1. Gender (male)	0.54	0.50	1.00									
2. Education (college)	0.75	0.44	.18**	1.00								
3. Rank (manager)	0.34	0.48	.31***	.15**	1.00							
4. Task interdependence	4.05	0.73	-.04	.05	.08	1.00						
5. Knowledge sharing	4.07	0.62	-.07	-.04	.05	.26***	1.00					
6. Reciprocated knowledge sharing	3.84	0.71	-.05	-.05	-.05	.21***	.37***	1.00				
7. Internal attribution	3.15	1.24	-.11	.00	.00	.03	-.08	-.18***	1.00			
8. Collectivistic values	3.88	0.71	.09	-.04	.14*	.29***	.36***	.30***	-.07	1.00		
9. Individualistic values	3.67	0.68	-.01	-.01	-.06	.05	.06	.11*	.11*	.22***	1.00	
10. Task performance	3.63	0.78	-.03	.05	.18**	.16**	.21**	.15**	.03	.20**	.06	1.00

Note. *N* = 334. Gender: 0 = female, 1 = male. Education: 0 = two years of college and below, 1 = bachelor’s degree and above. Rank: 0 = staff, 1 = manager and above.

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

### Reciprocated Knowledge Sharing

In Hypothesis 1 we posited a direct relationship between a focal member's knowledge sharing and other members' reciprocation. We performed a hierarchical linear regression analysis to test this hypothesis. There was a significantly positive relationship between knowledge sharing of a focal member and reciprocated knowledge sharing by others ( $\beta = .75, p < .001$ ). Thus, Hypothesis 1 was supported.

### Mediating Effect of Internal Attribution

In Hypothesis 2 we advanced an indirect effect of knowledge sharing on reciprocated knowledge sharing via internal attribution. We tested this hypothesis using Hayes' (2015) PROCESS macro (Model 4) and estimated 95% confidence intervals (CIs) around the indirect effect using 5,000 bootstrapped resamples (Preacher & Selig, 2010). The indirect effect of knowledge sharing on reciprocated knowledge sharing via internal attribution was significant,  $b = 0.026, 95\% \text{ CI } [0.01, 0.05]$ , supporting Hypothesis 2.

### Indirect Effect on Reciprocated Knowledge Sharing Moderated by Social Values

In Hypothesis 3 we suggested that the indirect effect of knowledge sharing on reciprocation through internal attribution would be moderated by social values. To test the conditional indirect effects, we used Hayes' (2015) PROCESS macro (Model 8) with 5,000 bootstrapped resamples. The results in Table 2 show that the effect of both types of social values was significant for both social values. Consistent with Hypothesis 3, the indirect effect was positive and significant when a focal knowledge sharer was high in collectivistic values and low in individualistic values. However, this effect became nonsignificant when the knowledge sharer was low in collectivism and high in individualism.

We also examined the first-stage moderating effect using a simple slope analysis (Aiken et al., 1991). The moderating effect of the direct relationship between knowledge sharing and internal attribution was significant for collectivistic values: The slope between knowledge sharing and internal attribution was more significant (see Figure 1) when collectivistic values of a focal member were high ( $b = 5.67, p < .001$ ) than when they were low ( $b = 2.42, p < .05$ ).

Table 2. *Conditional Indirect Effect Estimates of Moderated Mediation Analysis on Reciprocated Knowledge Sharing*

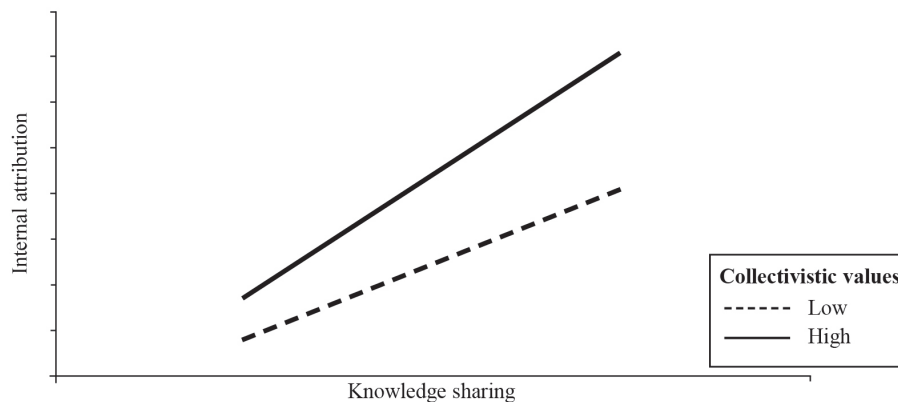
IV	Mediator	DV	Moderator	Indirect effect	SE	Bootstrapped bias-corrected 95% CI	
						LL	UL
Knowledge sharing	Internal attribution	Reciprocated knowledge sharing	Collectivistic values				
			Low	0.017	0.02	-0.09	0.06
			Medium	0.022	0.01	0.01	0.04
			High	0.029	0.02	0.02	0.05
Index of moderated mediation				0.025	0.02	0.00	0.04
Knowledge sharing	Internal attribution	Reciprocated knowledge sharing	Individualistic values				
			Low	0.022	0.02	0.00	0.05
			Medium	0.016	0.01	0.00	0.04
			High	0.010	0.01	-0.02	0.02
Index of moderated mediation				-0.087	0.01	-0.18	-0.04

Note.  $N = 334$ . IV = independent variable; DV = dependent variable; CI = confidence interval; LL = lower limit; UL = upper limit.

**Table 3. Conditional Indirect Effect Estimates of Moderated Mediation Analysis on Individual Task Performance**

IV	Mediator	DV	Moderator	Indirect effect	SE	Bootstrapped bias-corrected 95% CI	
						LL	UL
Knowledge sharing	Internal attribution	Reciprocated knowledge sharing	Collectivistic values				
			Low	0.018	0.06	-0.09	0.09
			Medium	0.065	0.05	0.04	0.11
			High	0.095	0.05	0.08	0.13
Index of moderated mediation				0.072	0.04	0.02	0.13
Knowledge sharing	Internal attribution	Reciprocated knowledge sharing	Individualistic values				
			Low	0.031	0.02	0.02	0.06
			Medium	0.030	0.02	0.01	0.06
			High	0.029	0.03	0.00	0.05
Index of moderated mediation				-0.011	0.01	-0.02	-0.00

Note. *N* = 334. IV = independent variable; DV = dependent variable; CI = confidence interval; *LL* = lower limit; *UL* = upper limit.



**Figure 1. Moderating Effect of the Interaction Between Knowledge Sharing and Collectivistic Values on Internal Attribution**

**Exploratory Analysis: Significance for Employee Task Performance**

As described earlier, we checked if the proposed knowledge-sharing reciprocation processes were beneficial for employee task performance to further validate the importance of such processes in organizations. The indirect effects of knowledge sharing on task performance through reciprocated knowledge sharing were significantly moderated by a focal member’s social values. The index of moderated mediation for collectivistic values was 0.072, 95% CI [0.02, 0.13], and for individualistic values the index of moderated mediation was -0.011, 95% CI [-.02, -.00]. These results indicate that employees with high collectivistic values, *b* = 0.095, 95% CI [0.08, 0.13], and low individualistic values, *b* = 0.031, 95% CI [0.02, 0.06], can improve their task performance when they share knowledge because their colleagues reciprocate behavior that they perceive as constructive.

## Discussion

For organizations to maximize knowledge utilization, employees must share their knowledge to transfer and exploit experiences, know-how, and expertise for superior performance (Jiang & Chen, 2018). In this study our focus was on why and when others respond to knowledge sharers. In particular, in relation to others' knowledge-sharing reciprocation, we used attribution theory as a basis to demonstrate the significance of the knowledge sharer's social values, and whether other team members attributed the knowledge sharing of the focal member to internal personal reasons or to external causes. Using data from a field survey of 334 employees, our study results demonstrate that team members reciprocate knowledge sharing with a focal knowledge sharer because they attribute the knowledge sharer's behavior to internal reasons. Moreover, the results show that this reciprocation of sharing knowledge is strengthened when the focal knowledge sharer has prosocial, collectivistic values but not when that person possesses proself, individualistic values. Understanding why and when others engage in reciprocation of sharing their knowledge is critical because it completes the knowledge exchange process to develop a virtuous cycle of knowledge flow.

### Attribution as a Psychological Mechanism Behind Knowledge Reciprocation

In the extant studies, a feeling of obligation or indebtedness (Ng & Feldman, 2015) and trust (Černe et al., 2014) have been highlighted as the main reasons for others to reciprocate in knowledge sharing. However, there has been a paucity of research in which the underlying mechanism for others' reciprocation of sharing knowledge has been examined. Černe et al. (2014) drew on the helping literature to identify distrust as a mechanism underlying others' knowledge hiding following a focal member's hiding. Unfortunately, information related to the reciprocation of knowledge-sharing behaviors is limited.

In the current analysis the underlying mechanism that instigates knowledge-sharing reciprocation was specified. We found that internal attribution mediated the positive relationship between a focal member's knowledge sharing and others' reciprocation. This finding reconfirms that knowledge-sharing reciprocation is a form of prosocial behavior (Baker & Bulkley, 2014) that requires others to be sufficiently motivated to pay back. Thus, if others perceive the focal member's behavior as arising from a genuine motivation to help rather than from self-interested, instrumental causes, then those others will be motivated to return the favor.

This study contributes to the literature on knowledge management by establishing internal attribution as a core underlying mechanism for reciprocating knowledge sharing. Individual-level knowledge sharing forms a microfoundation for organization-level knowledge sharing. However, the findings reported in the extant research offer limited understanding of the unfolding processes following knowledge sharing at the individual level (Wang & Noe, 2010). Individuals inherently have motivational dilemmas involving knowledge sharing (Cabrera & Cabrera, 2002). Hence, uncertainty around reciprocation by others inhibits these individuals from initiating knowledge sharing, thereby ultimately limiting the free flow of knowledge within the organization (Wang et al., 2014). In the current analysis we have revealed the psychological mechanism and contingencies that explain why others reciprocate in sharing knowledge, thereby possibly enabling the activation of a virtuous cycle of knowledge sharing in organizations. Our exploratory analysis also showed that the activation of such a cycle of knowledge exchange has the potential to improve the task performance of individuals. This individual-level process may have positive ramifications and could be expanded toward enhancement of team and organizational performance.

### Social Values as a Critical Boundary Condition

The field data we analyzed reveal that the social values of a focal knowledge sharer are a critical boundary condition for others to make an attribution and to reciprocate by sharing their knowledge with a focal



member. When the congruence between the social values of a focal member and that member's knowledge-sharing behavior exists, for instance, when a focal member who shares knowledge has collectivistic values, internal attribution emerges among other members, thereby resulting in their increased reciprocation of knowledge sharing. By contrast, internal attribution decreases when a focal member's social values and behavior do not align, such as an individualistic person sharing knowledge, which leads to reduced reciprocation by other members. These results underscore the importance of the individual's reputation and stable social interaction patterns in interpreting the intention of knowledge sharing (Baker & Bulkley, 2014). When knowledge is shared by collectivistic, prosocial members with a reputation of being good citizens, other members will be sufficiently motivated to reciprocate, attributing the behavior of the prosocial member to internal reasons (Connelly et al., 2012).

Our finding is consistent with the notion of the discounting rule, whereby it is suggested that misalignment between people's characteristics and behavior tends to depreciate the role of their intention, thereby releasing them from responsibilities or merits for the action (Eberly et al., 2017). By applying the discounting rule, an individualistic person's knowledge sharing is attributed to external causes, thereby dissipating others' feelings of obligation or the sense of indebtedness and decreasing reciprocation. However, internal attribution justifies knowledge reciprocation because others perceive that the focal member deserves it and thus returns the favor by sharing their knowledge. In summary, attribution theory offers distinct insights into the development of the cycle of knowledge exchange in work teams and deserves further conceptual and empirical endeavors.

### **Study Limitations and Future Research Directions**

The current findings should be interpreted while considering the following limitations. First, our data were not based on a dyadic sample, but our aim in the survey was to evaluate the general tendency of participants' knowledge sharing and reciprocation. However, to test the reciprocation process precisely, the ideal method involves obtaining responses and reports of knowledge-sharing reciprocation directly from the other members targeted at each focal member. Further studies may replicate our findings using a rigorous research design based on alternative measurement approaches for reciprocated knowledge sharing. Second, although our analysis included control variables, including the participants' demographic characteristics and task interdependence, other plausible theoretical alternatives and confounding variables were not controlled for in this study. Social exchange relationships that drive the knowledge-sharing and reciprocation processes in organizational teams can be highly complicated and affected by numerous factors. Examples of these factors include group norms, incentive structure, work and performance history of members, and leadership styles. Hence, in the current theoretical framework there were numerous omitted variables. Future researchers should explore the alternative theoretical possibilities explaining knowledge sharing and reciprocation.

Despite potential shortcomings, this study contributes significantly to the literature by theorizing and empirically validating the attribution process as a mediating mechanism and social values of a focal member as the core boundary condition for reciprocated knowledge sharing. This study should be extended by theorizing and testing alternative mechanisms other than attribution for knowledge-sharing reciprocation decisions. Further exploration can also be targeted at additional boundary conditions that may redirect knowledge reciprocation, such as contextual factors involving the team, and organizational properties pertinent to knowledge exchange among individuals.

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## References

- Ahmad, F., & Karim, M. (2019). Impacts of knowledge sharing: A review and directions for future research. *Journal of Workplace Learning, 31*(3), 207–230.  
<https://doi.org/10.1108/JWL-07-2018-0096>
- Aiken, L. S., West, S. G., & Reno, R. R. (1991). *Multiple regression: Testing and interpreting interactions*. Sage Publications.
- Baker, W. E., & Bulkley, N. (2014). Paying it forward vs. rewarding reputation: Mechanisms of generalized reciprocity. *Organization Science, 25*(5), 1493–1510.  
<https://doi.org/10.1287/orsc.2014.0920>
- Bolino, M. C., & Grant, A. M. (2016). The bright side of being prosocial at work, and the dark side, too: A review and agenda for research on other-oriented motives, behavior, and impact in organizations. *Academy of Management Annals, 10*(1), 599–670.  
<https://doi.org/10.1080/19416520.2016.1153260>
- Cabrera, A., & Cabrera, E. F. (2002). Knowledge-sharing dilemmas. *Organization Studies, 23*(5), 687–710.  
<https://doi.org/10.1177/0170840602235001>
- Černe, M., Nerstad, C. G. L., Dysvik, A., & Škerlavaj, M. (2014). What goes around comes around: Knowledge hiding, perceived motivational climate, and creativity. *Academy of Management Journal, 57*(1), 172–192.  
<https://doi.org/10.5465/amj.2012.0122>
- Connelly, C. E., Zweig, D., Webster, J., & Trougakos, J. P. (2012). Knowledge hiding in organizations. *Journal of Organizational Behavior, 33*(1), 64–88.  
<https://doi.org/10.1002/job.737>
- 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>
- De Cremer, D., & Van Lange, P. A. M. (2001). Why prosocials exhibit greater cooperation than proselves: The roles of social responsibility and reciprocity. *European Journal of Personality, 15*(S1), 5–18.  
<https://doi.org/10.1002/per.418>
- Eberly, M. B., Holley, E. C., Johnson, M. D., & Mitchell, T. R. (2017). It's not me, it's not you, it's us! An empirical examination of relational attributions. *Journal of Applied Psychology, 102*(5), 711–731.  
<https://doi.org/10.1037/apl0000187>
- Gardner, W. L., Karam, E. P., Tribble, L. L., & Coglisier, C. C. (2019). The missing link? Implications of internal, external, and relational attribution combinations for leader–member exchange, relationship work, self-work, and conflict. *Journal of Organizational Behavior, 40*(5), 554–569.  
<https://doi.org/10.1002/job.2349>
- Hayes, A. F. (2015). An index and test of linear moderated mediation. *Multivariate Behavioral Research, 50*(1), 1–22.  
<https://doi.org/10.1080/00273171.2014.962683>
- Heider, F. (1958). *The psychology of interpersonal relations*. Wiley.  
<https://doi.org/10.1037/10628-000>
- Heilman, M. E., Block, C. J., & Lucas, J. A. (1992). Presumed incompetent? Stigmatization and affirmative action efforts. *Journal of Applied Psychology, 77*(4), 536–544.  
<https://doi.org/10.1037/0021-9010.77.4.536>
- Henttonen, K., Kianto, A., & Ritala, P. (2016). Knowledge sharing and individual work performance: An empirical study of a public sector organisation. *Journal of Knowledge Management, 20*(4), 749–768.  
<https://doi.org/10.1108/JKM-10-2015-0414>

- Hewett, R., Shantz, A., & Mundy, J. (2019). Information, beliefs, and motivation: The antecedents to human resource attributions. *Journal of Organizational Behavior*, 40(5), 570–586.  
<https://doi.org/10.1002/job.2353>
- Hu, J., & Liden, R. C. (2015). Making a difference in the teamwork: Linking team prosocial motivation to team processes and effectiveness. *Academy of Management Journal*, 58(4), 1102–1127.  
<https://doi.org/10.5465/amj.2012.1142>
- Jiang, Y., & Chen, C. C. (2018). Integrating knowledge activities for team innovation: Effects of transformational leadership. *Journal of Management*, 44(5), 1819–1847.  
<https://doi.org/10.1177/0149206316628641>
- Kim, S. L., & Yun, S. (2015). The effect of coworker knowledge sharing on performance and its boundary conditions: An interactional perspective. *Journal of Applied Psychology*, 100(2), 575–582.  
<https://doi.org/10.1037/a0037834>
- Mahdi, O. R., Nassar, I. A., & Almsafir, M. K. (2019). Knowledge management processes and sustainable competitive advantage: An empirical examination in private universities. *Journal of Business Research*, 94, 320–334.  
<https://doi.org/10.1016/j.jbusres.2018.02.013>
- Martinko, M. J., & Mackey, J. D. (2019). Attribution theory: An introduction to the special issue. *Journal of Organizational Behavior*, 40(5), 523–527.  
<https://doi.org/10.1002/job.2397>
- Morgan, G. S., Mullen, E., & Skitka, L. J. (2010). When values and attributions collide: Liberals' and conservatives' values motivate attributions for alleged misdeeds. *Personality and Social Psychology Bulletin*, 36(9), 1241–1254.  
<https://doi.org/10.1177/0146167210380605>
- Ng, T. W. H., & Feldman, D. C. (2015). Felt obligations to reciprocate to an employer, preferences for mobility across employers, and gender: Three-way interaction effects on subsequent voice behavior. *Journal of Vocational Behavior*, 90, 36–45.  
<https://doi.org/10.1016/j.jvb.2015.07.005>
- Park, S., & Kim, E.-J. (2018). Fostering organizational learning through leadership and knowledge sharing. *Journal of Knowledge Management*, 22(6), 1408–1423.  
<https://doi.org/10.1108/JKM-10-2017-0467>
- Pearce, J. L., & Gregersen, H. B. (1991). Task interdependence and extrarole behavior: A test of the mediating effects of felt responsibility. *Journal of Applied Psychology*, 76(6), 838–844.  
<https://doi.org/10.1037/0021-9010.76.6.838>
- Perry-Smith, J. E. (2014). Social network ties beyond nonredundancy: An experimental investigation of the effect of knowledge content and tie strength on creativity. *Journal of Applied Psychology*, 99(5), 831–846.  
<https://doi.org/10.1037/a0036385>
- Preacher, K. J., & Selig, J. P. (2010). *Monte Carlo method for assessing multilevel mediation: An interactive tool for creating confidence intervals for indirect effects in 1-1-1 multilevel models* [Computer software]. <https://bit.ly/3lRvWY1>
- Rhee, Y. W., & Choi, J. N. (2017). Knowledge management behavior and individual creativity: Goal orientations as antecedents and in-group social status as moderating contingency. *Journal of Organizational Behavior*, 38(6), 813–832.  
<https://doi.org/10.1002/job.2168>
- Sun, J., Liden, R. C., & Ouyang, L. (2019). Are servant leaders appreciated? An investigation of how relational attributions influence employee feelings of gratitude and prosocial behaviors. *Journal of Organizational Behavior*, 40(5), 528–540.  
<https://doi.org/10.1002/job.2354>

Swärd, A. (2016). Trust, reciprocity, and actions: The development of trust in temporary inter-organizational relations. *Organization Studies*, 37(12), 1841–1860.  
<https://doi.org/10.1177/0170840616655488>

Trong Tuan, L. (2017). Knowledge sharing in public organizations: The roles of servant leadership and organizational citizenship behavior. *International Journal of Public Administration*, 40(4), 361–373.  
<https://doi.org/10.1080/01900692.2015.1113550>

van Hoorn, A. (2014). Individualist–collectivist culture and trust radius: A multilevel approach. *Journal of Cross-Cultural Psychology*, 46(2), 269–276.  
<https://doi.org/10.1177/0022022114551053>

Van Lange, P. A. M. (2000). Beyond self-interest: A set of propositions relevant to interpersonal orientations. *European Review of Social Psychology*, 11(1), 297–331.  
<https://doi.org/10.1080/14792772043000068>

Wang, S., & Noe, R. A. (2010). Knowledge sharing: A review and directions for future research. *Human Resource Management Review*, 20(2), 115–131.  
<https://doi.org/10.1016/j.hrmr.2009.10.001>

Wang, S., Noe, R. A., & Wang, Z.-M. (2014). Motivating knowledge sharing in knowledge management systems: A quasi-field experiment. *Journal of Management*, 40(4), 978–1009.  
<https://doi.org/10.1177/0149206311412192>