To Share or Not To Share: 
Interplay of Employee Goal Orientation and Coworker 
Exchange Ideology on Knowledge Sharing Behavior

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As the central process of effective knowledge management in organizations, the importance of comprehending employees’ knowledge sharing behavior is increasing. While the established literature in the topic of knowledge sharing examined the role of knowledge providers’ characteristics or the effects of its contextual factors, relatively scant study has examined how the interpersonal dynamics between knowledge providers and knowledge recipients in predicting knowledge sharing behavior of employees. Drawing on social exchange theory, the current study examines the moderating role of coworker’s exchange ideology on the relationship between knowledge sharers’ goal orientation and their knowledge sharing behavior.
I. Introduction

In the current literature on knowledge sharing, however, has neglected the fact that knowledge sharing behavior occurs under the inter-personal context that have both knowledge provider and knowledge recipient. Accordingly, not only the characteristics of knowledge provider, but also the characteristics of knowledge recipient would give substantial influences on knowledge sharing of employees. Indeed, research on other types of work behaviors (e.g., helping; voice) has identified the recipient characteristics as an important factor that facilitates or inhibits such behaviors (Nadler, 2015; Ng & Feldman, 2012). In research on knowledge sharing, however, previous studies rarely examined the role of knowledge sharing recipient’s characteristics in determining knowledge sharing (cf. Zhang & Jiang, 2015). Hence, this study aims to overcome the limitation of the established literature by simultaneously considering the role of knowledge providers’ characteristic and knowledge recipients’ characteristic in predicting knowledge sharing behavior.

As an individual-level knowledge providers’ characteristic, we examine the effect of goal orientation. Goal orientation is one of the most frequently studied motivational variables in applied psychology (DeShon & Gillespie, 2005; Dragoni, 2005), which refers to the goal preference of an individual in an achievement setting (Dweck, 1986; Payne, Youngcourt, & Beaubien, 2007). Previous research has shown its important implications for work behavior and job performance (Bell & Kozlowski, 2002; Payne et al., 2007; Porath & Bateman, 2006). Moreover, rapid organizational change requires employees to update their skills continually and to adapt their behaviors proactively to the new organizational environment (Crant, 2000; DeShon & Gillespie, 2005). Enhancing organizational effectiveness through employee motivation increases the importance of goal orientation. Building on social exchange theory (Cabrera & Cabrera, 2002; Cropanzano & Mitchell, 2005; Poortvliet et al., 2007), we articulate the main effect of knowledge providers’ goal orientation in predicting knowledge sharing behavior.

Moreover, to better understand the interpersonal dynamics among the knowledge providers and the knowledge recipients, we examine the moderating role of coworker (i.e., knowledge recipient) exchange ideology in determining the relationship between
knowledge providers’ goal orientation and his/her knowledge sharing behavior. Social exchange theory has been used to investigate the effects of perceived benefits and costs on knowledge sharing (Wang & Noe, 2010). Further, existing research results regarding social exchange theory show that people in the same situation usually do not respond in the same way. Rather, people have different degrees of exchange ideology, which refer to individual differences regarding exchange norms (Cropanzano & Mitchell, 2005; Molm, Peterson, & Takahashi, 2003; Takeuchi, Yun, & Wong, 2011). Thus, we examine how differently an employee who has a certain goal orientation acts with regard to knowledge sharing behavior in the presence of a coworker who has a different level of exchange ideology. Via articulating interactive effects of knowledge providers’ goal orientation and knowledge recipients’ exchange ideology, we aim to articulate the interpersonal dynamics among employees with regard to their knowledge sharing behavior.

II. Hypotheses Development

1. Goal Orientation

Goal orientation, which has received a great deal of attention in organizational research, refers to the dispositional or situational goal preferences in achievement situations of an individual (Payne et al., 2007). Educational psychologists devised the concept of goal orientation in the 1970s and the 1980s. Initially, Nicholls (1975) investigated achievement motivation and hypothesized that success has two conceptions: task involvement in which individuals compare themselves with their own past performance, and ego involvement in which individuals compare their performance with others (Payne et al., 2007). Similarly, Dweck (1986) conceptualized two types of goal orientation, namely performance goal orientation and learning goal orientation. Dweck (1986) asserted that individuals who think intelligence is determined seek performance goal orientation, whereas individuals who think intelligence is not fixed and can be improved pursue learning goal orientation.

Studies conducted in the classroom context were later applied to organizational settings
(VandeWalle, 1997; Janssen & Van Yperen, 2004), and conceptual confusion about the nature of construct was re-conceptualized. First, learning goal orientation and performance goal orientation co-exist in the same individual to some degree on each dimension (Button, Mathieu, & Zajac, 1996; Janssen et al., 2004; Midgley, Kaplan, & Middleton, 2001). Second, performance goal orientation is further divided into performance-prove orientation (prove orientation) and performance-avoid orientation (avoid orientation). Such concept has been generally used in organizational literature (Elliot, 2006; Elliot & Church, 1997; Vandewalle, 1997). Elliot and Church (1997) described performance-prove goals as targets focused on the attainment of competence relative to others, whereas performance-avoid goals focus on avoiding the perception of incompetence relative to others. Previous studies showed that learning goal orientation is positively, while performance-avoid goal orientation is negatively associated with job performance; performance-prove goal orientation showed mixed findings from negative to positive relationship with job performance (Payne et al., 2007). Based on these clarifications and verifications, we utilize the three-component conceptualization of goal orientation.

2. Goal Orientation and Knowledge Sharing

In articulating the relationship between goal orientation and knowledge sharing, the goal orientation theory of Dweck (1986) and social exchange theory (Cropanzano & Mitchell, 2005) provide theoretical backgrounds. First, according to the theory of goal orientation, individuals who believe that intelligence is incremental would have high learning orientation, whereas those who believe that intelligence is determined and cannot be improved would have high performance orientation (Dweck, 1986). Accordingly, employees with high learning orientation believe that their intelligence is malleable and that they can improve through learning. They would share knowledge with other employees for their own growth because they expect other employees would also share their knowledge based on the norm of reciprocity (Cropanzano & Mitchell, 2005).

Knowledge sharing requires knowledge providers’ own risk-taking because it is difficult, time consuming, and threatening to one’s own status (Argote et al., 2000;
In spite of these risks, employees with high learning orientation would be attracted by the benefits from the reciprocation of coworkers, as they believe that receiving knowledge from coworkers would be helpful in the growth of the employee. In addition, owing to the organizational context that such exchanges continuously and frequently endure over time, the norm of reciprocity would be reinforced. Given that, the employee who does not follow the norm of reciprocity risks damaging his or her own social status and reputation. Therefore, in organizational context, it is important for employees to follow and conform to the norm of reciprocity.

Second, according to Poortvliet and his colleagues (2007), employees with high learning orientation would have high reciprocity orientation. Thus, they would have a collaborative mindset and share more knowledge with their coworkers. By contrast, employees with competitive mindsets consider their coworkers as potential competitors. This mindset could influence them to reject pro-organizational behaviors that would sacrifice their own interests; hence, they would concentrate their efforts on exhibiting pro-organizational and pro-self behaviors (Grant & Mayer, 2009). In line with this, employees with competitive mindsets would neglect knowledge sharing because it poses the risk of threatening themselves (Cabrera et al., 2002). On the contrary, employees with collaborative mindsets would consider their coworkers as cooperative partners who share a common goal, resulting in more knowledge sharing behavior more frequently compared with employees with competitive mindsets (Poortvliet et al., 2007).

Third, employees with high learning goal orientation would be pro-socially motivated by providing knowledge for coworkers. Grant and his coworkers asserted that pro-social motivation would facilitate employee behaviors that benefit an organization (Grant, 2007; 2008; Grant & Ashford, 2008). Not only coworkers who receive benefits would feel good, but also employees who give benefits would feel the worthiness of conducting such behaviors. In this vein, employees who conduct knowledge sharing behavior would be motivated by providing information and watching the growth of coworkers. Furthermore, providing knowledge facilitates the intrinsic motivation of employees. Facilitating intrinsic motivation attracts employees with high learning orientation because they put stress on intrinsic rewards relative to high performance orientation (Dweck, 1986). Therefore,
employees with high learning orientation would conduct more knowledge sharing behavior owing to its pro-social advantages. For these reasons, this study posits that a positive relationship exists between learning goal orientation and knowledge sharing behavior. Thus, we suggest the following:

Hypothesis 1-A: Employees’ learning goal orientation is positively related to knowledge sharing behavior.

Whereas learning goal orientation of employees would have positive effects on their knowledge sharing behavior, we assert that performance goal orientation of employees would have negative effects (Dweck, 1986; Matzler et al., 2011; Poortvliet et al., 2007). According to Dweck (1986), individuals who believe that intelligence is determined and cannot be improved would have high performance goal orientation. Therefore, individuals with high performance goal orientation would neglect knowledge sharing because of the lack of benefits. Despite the same results, the more specific reasons of the negative relationship between performance-prove goal orientation (prove-orientation) and knowledge sharing, and between performance-avoid goal orientation (avoid-orientation) and knowledge sharing would be different from each other. On the one hand, employees with high avoid-orientation would likely conceal their performance because of the fear of revealing their shortcomings (Lin, 2007). They tend not to value the usefulness of knowledge sharing in improving their own ability; rather, they fear the possibility of sharing wrong or inaccurate knowledge (Lin, 2007). The sense of fear of employees would serve as a barrier from knowledge sharing of individuals to the knowledge transfer in an organization (Szulanski, 1996; Wang et al., 2010). As a result, employees with high avoid-orientation subtly neglect to share knowledge.

On the other hand, employees with high prove-orientation would be motivated to show their own superior competence (Cabrera et al., 2002; Porath et al., 2006; VandeWalle, 1997). Therefore, they would try to hide their own process-related expertise, and would only show their own resulting performance. Although employees with high prove-orientation would neglect to share knowledge owing to above reasons, but they also have
motives to conduct knowledge sharing behavior because it is a chance to show their own competence and intelligence. Considering that knowledge is a strong predictor of job performance (Tett & Burnett, 2003), employees who have high prove-orientation would be motivated to share knowledge as a means to show their ability. Nevertheless, they would face the dilemma of whether they should conduct knowledge sharing behavior toward coworkers.

The resource allocation theory solves this dilemma by explaining the behavior of employees with high prove-orientation (Bergeron, 2007). Based on the resource allocation concept, employees have limited time and energy. They have to assign their resources appropriately, as they would face difficulties in conducting in-role duties if they perform excessively or exhibit extra-role behaviors (Bergeron, 2007). Despite their chance to show their competence through knowledge sharing, employees still shun imparting knowledge because its benefits do not exceed its costs. As mentioned before, employees with high prove-orientation would consider their intelligence is fixed rather than malleable. Thus, in conducting knowledge sharing behavior, they would deliberately be less useful to enhance their own performance via growing competence and intelligence indirectly. In this way, they would concentrate on performing in-role work (Porath et al., 2006). In other words, they would allocate their own cognitive and time resources to perform in-role work and would not extend their resources to extra-role behaviors such as knowledge sharing (Kanfer & Ackerman, 1989). Thus, we posit the following hypotheses:

Hypothesis 1-B: Employees’ performance-prove goal orientation is negatively related to knowledge sharing behavior.

Hypothesis 1-C: Employees’ performance-avoid goal orientation is negatively related to knowledge sharing behavior.

3. Coworker Exchange Ideology as a Moderator

Employee behavior is not only a function of characteristics of the focal actor. Instead, employees behave according to the influence of the interaction between the outside
environment and inside self-regulation (Bandura, 1978). When employees exhibit knowledge sharing behavior, the characteristics of the coworker would play an important role as an outside factor. To be specific, the current study focuses on examining the moderating role of coworker exchange ideology, adopting social exchange theory. The social exchange perspective provides useful theoretical framework in understanding and explaining interpersonal knowledge exchange dynamics (Levin & Cross, 2004; Wang et al., 2010). Thus, examining the moderating effects of coworker exchange ideology on the relationship between employee goal orientation and knowledge sharing would deepen the literature on knowledge management in organizations.

Exchange ideology refers to the strength of the belief of an employee that work effort should depend on how the organization treats its employees (Eisenberger, Huntington, Hutchinson, & Sowa, 1986). Eisenberger et al. (1986) examined the concept to find out why not all individuals value reciprocity to the same degree despite the general norm of reciprocity in human nature (Cropanzano & Mitchell, 2005; Takeuchi, Yun, & Wong, 2011). Exchange ideology is a dispositional orientation or cognitive style (Witt, 1991), encompassing an employee’s expectation of behavioral responses to exchange relationships within a given organization or with organization members (Scott & Colquitt, 2007). Therefore, the core concept of exchange ideology lies on the conditionality to efforts the individual makes (Pazy & Ganzach, 2010).

Witt (1991) examined exchange ideology as a moderator of the relationship between job attitude and organizational citizenship behavior. In addition, Witt and Broach (1993) proved that exchange ideology moderates the relationship between procedural justice and job satisfaction. Furthermore, other researchers articulated the role of exchange ideology as a moderating variable (Coyle-Shapiro & Neuman, 2004; Eisenberger et al., 1986; Orpen, 1994; Redman et al., 2005; Scott & Colquitt, 2007; Witt, 1991). They found that employees with a strict exchange ideology adhere strongly to the norms of reciprocity and respond against outside environmental change more sensitively (Eisenberger et al., 1986; Scott et al., 2007). These findings indicate that exchange ideology moderates the relationship between two variables by reinforcing them. Most existing studies focused on the exchange ideology of the focal employee. As far as we know, however, no prior study
has been examined the moderating role of coworker exchange ideology. In addition, the dispositional tendency of the opposite side regarding exchange is important in determining the interpersonal exchange dynamics among employees. Hence, examining the moderation effects of coworker exchange ideology on interpersonal relationship would be worthwhile.

Accordingly, the current paper examines the moderating effects of coworker’s exchange ideology on the relationship between employee’s goal orientation and knowledge sharing. First, when considering the relationship between learning orientation and knowledge sharing, the focal employee who shares knowledge would generally expect the reciprocation behavior from a coworker who receives the knowledge. On the one hand, when coworker exchange ideology is low, the focal employee cannot have the confidence that the coworker would likewise share knowledge. By definition, the coworker with low exchange ideology is not sensitive regarding exchange relationships. Essentially, the coworker cares less about the norm of reciprocity, and is therefore less likely to reciprocate an employee’s knowledge sharing behavior. Hence, the employee, despite a high learning goal orientation, is not motivated to share knowledge without the guarantee of receiving knowledge from the coworker through reciprocation. Without receiving knowledge or other benefits from the coworker for reciprocation, the employee cannot expect one’s own growth and development.

On the other hand, when a coworker exchange ideology is high, the focal employee shares knowledge with conviction that the coworker will reciprocate. As the norm of reciprocity is strong, the coworker would feel the responsibility to help or exchange information with the employee who shares the knowledge. As a result, the coworker would be more likely to reciprocate. Therefore, the expectation of the employee to learn more from the coworker’s knowledge sharing behavior increases. In such a case, the focal employee would likely exhibit more knowledge sharing behavior. Thus, we suggest the following:

Hypothesis 2-A: Coworker exchange ideology would moderate the relationship between employees’ learning goal orientation and knowledge sharing behavior, such that it would strengthen the positive relationship between them.
Considering the relationship between prove-orientation and knowledge sharing, a coworker with a high exchange ideology would aggravate its already negative effects on knowledge sharing. Supposing that coworker exchange ideology is high, the coworker would pay more attention to what he receives, which would likely trigger self-serving bias (Takeuchi et al., 2011). Their egocentric disposition tends to focus on negative experiences and information, making them more prone to negativity bias (Rozin & Royzman, 2001; Takeuchi et al., 2011). Thus, the coworker would require focal employee knowledge sharing more immediately.

On the other hand, when focal employee who receives a request from the coworker has high prove-orientation, the employee would neglect to share his or her knowledge because people with high prove-orientation are likely to have competitive mindsets (Poortvliet et al., 2007). Moreover, this competitive mindset would be facilitated by the perception that knowledge sharing behavior is not beneficial for the employee who shares knowledge. As a coworker requires reciprocation from the focal employee, a competitive relationship would form between the focal employee and the coworker. This poor relationship would reduce knowledge sharing between them. Thus, we expect the following:

Hypothesis 2-B: Coworker exchange ideology would moderate the relationship between employees’ performance-prove goal orientation and knowledge sharing behavior, such that it would aggravate the negative relationship between them.

To the contrary, for employees with high avoid-orientation, strong coworker exchange ideology would be helpful in facilitating employees’ knowledge sharing. In general, an employee who has high avoid-orientation is reluctant to share knowledge, owing to the fear of the possibility of sharing wrong or inaccurate knowledge (Lin, 2007). In such cases, the sharing of knowledge would be harmful in one’s in-role performance, and the sharing of wrong knowledge would negatively affect an employee’s evaluation.

When a coworker has strong exchange ideologies, however, as stated above, he or she would require sharing knowledge from the focal employee. Owing to self-serving bias, the coworker would think that he or she is receiving less than what one deserves (Molm
et al., 2003; Takeuchi et al., 2011). Furthermore, the coworker would likely fall into negativity bias because of one’s tendency to focus on negative experience information (Rozin et al., 2001). Based on these reasons, the coworker strongly requires knowledge sharing to the employee for reciprocation.

In response to a request, an employee with high avoid-orientation who is asked to share knowledge would exhibit more knowledge sharing behavior to avoid negative reactions from a coworker. Even though the employee does not expect to gain personal enhancement by receiving the same knowledge sharing, he or she at least tries to avoid getting a bad reputation from a coworker. Moreover, when the coworker has high exchange ideology, employee who provides knowledge could expect reciprocation through other means. For instance, in return for knowledge sharing, the employee can require other types of help from the coworker rather than receiving other knowledge. In line with this idea, we posit the following:

Hypothesis 2-C: Coworker exchange ideology would moderate the relationship between employees’ performance-avoid goal orientation and knowledge sharing behavior, such that it would mitigate the negative relationship between them.

〈Figure 1〉presents the research model of the current research.

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**〈Figure 1〉 Research Model**

- Employee’s LGO
- Employee’s PPGO
- Employee’s PAGO
- Knowledge Sharing
- Coworker Exchange Ideology
III. Method

1. Participants and Procedures

In order to test our hypotheses, data were collected using questionnaires. Data for the current study were gathered from 17 firms in Korea. Survey packages were initially distributed to 170 coworker dyads in 18 firms. We first distributed survey packages to employees and let them randomly choose a coworker who had co-work experience. After completing the survey, coworkers sealed and return it to employees who requested the survey. Out of the 170 sets distributed, 153 completed sets were returned, 3 of which were excluded due to careless and incomplete responses. Therefore, 150 dyads were included in the data analysis.

The average age of employees was 35.75 years (SD = 8.03); 186 employees (62%) were male and 114 employees (38%) were female. On average, tenure of employees with a coworker was 3.26 years (SD = 4.21). The education level of the employees was distributed as follows: 27 employees (9%) were high school graduates, 36 employees (12%) graduated from junior college, 182 employees (61%) had bachelor’s degree, and 55 employees (18%) earned a master’s degree or higher. In the perspective of industrial composition, 25.3% of data were from manufacturing industry, 22.7% from financial industry, 18% from IT and communication industry, 15.3% from service industry, 4.7% from construction industry, 3.3% from distribution industry, and 10.6% from other industries.

2. Measures

All variables in the current study were measured using self-reported data from focal employees (knowledge provider), except for the coworker’s exchange ideology and knowledge sharing behavior of employees. The focal employee’s coworker (knowledge recipient) reported his own exchange ideology and the employee’s knowledge sharing behavior. All of the items were measured on a seven-point Likert scale (1 = strongly disagree; 7 = strongly agree).
1) Employee goal orientation

To measure employee goal orientation, the current study used VandeWalle’s (1997) 13-item scale. Following are sample items: “I am willing to select a challenging work assignment that I can learn a lot from,” “I prefer to work on projects where I can prove my ability to others,” and “I am concerned about taking on a task at work if my performance would reveal that I had low ability.”

2) Coworker exchange ideology

To measure exchange ideology, this study used the eight-item scale (Ahn, Lee, & Yun, 2018; Eisenberger et al., 1986; Kim, Han, Son, & Yun, 2017). The following is a sample item: “An employee should only work hard if his or her effort will lead to a pay increase, promotion, or other benefits.” Cronbach’s alpha for the coworker exchange ideology was .85.

3) Knowledge sharing behavior

The knowledge sharing behavior of the employee was measured with seven-item scale (Kim, Kim, & Yun, 2015; Kim, Lee, & Yun, 2015; Kim & Yun, 2015; Lee, Kim, & Yun, 2018; Srivastava et al., 2006). Following are sample items. “This employee shares business knowledge obtained from newspapers, magazines, journals, and television,” “This employee shares his/her special knowledge and expertise with one another.” Cronbach’s alpha for the knowledge sharing was .96.

4) Control variables

To reduce the likelihood that other factors affecting knowledge sharing would confound the relations examined in this research, the current study controlled several demographic variables. This study controlled the education level, age, and gender of the employees and coworkers. Factors related to the hierarchical status of employees in the organization, such as rank, organization tenure, and work experience with the coworker, were also controlled. In addition, task interdependence was measured to control the effects of
interaction intensity between dyads. This study used Campion, Medsker, and Higgs’ (1993) three-item scale measure.

3. Analytical Strategy

To test our hypotheses, the current study used hierarchical regression analysis. Step 1 involves the control variables. Steps 2 and 3 include the main effects of independent and moderating variables. Finally, Step 4 includes the product terms of the main variable and the moderator. Before generating the product terms, related variables were mean-centered to prevent potential multicollinearity problems (Aiken & West, 1991).

IV. Results

Table 1 shows the means, reliability, standard deviations of the variables included in this study, and the inter-correlations among them. Hypothesis 1a, 1b, and 1c, which posit the relationship between employee goal orientation and knowledge sharing, were not supported. Results of Model 2 in Table 2 indicated that learning, prove-orientation, and avoid-orientation are not significantly associated with knowledge sharing behavior of employees. Moreover, even though not a significant one, learning goal orientation is negatively related to knowledge sharing (β = -.02); this is notable because it contradicts

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>S. D.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<tr>
<td>1. Learning goal orientation</td>
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<td>1.08</td>
<td></td>
<td></td>
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<td>2. Prove-orientation</td>
<td>5.08</td>
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<td>.32*</td>
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<td></td>
<td></td>
<td></td>
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<td>3. Avoid-orientation</td>
<td>3.70</td>
<td>1.20</td>
<td>-.32**</td>
<td>.17*</td>
<td>(.89)</td>
<td></td>
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<td>4. Coworker exchange ideology</td>
<td>3.82</td>
<td>1.03</td>
<td>-.05</td>
<td>.10</td>
<td>.15</td>
<td>(.85)</td>
<td></td>
</tr>
<tr>
<td>5. Knowledge sharing</td>
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<td>1.24</td>
<td>.11</td>
<td>-.12</td>
<td>-.17*</td>
<td>-.14</td>
<td>(.96)</td>
</tr>
</tbody>
</table>

Note. N = 150, **p < .01, *p < .05 (two-tailed)
the results of established studies.

Model 4 in (Table 2) presents the effects of the interaction between employee goal orientation and coworker exchange ideology on knowledge sharing behavior of employees. Hypothesis 2-A proposed the positive moderating effects of coworker exchange ideology

\[ \text{Table 2) Hierarchical Regression Analytical Results for Knowledge Sharing} \]

<table>
<thead>
<tr>
<th>Variables</th>
<th>Knowledge sharing</th>
</tr>
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<tr>
<td>Model 1</td>
<td>Model 2</td>
</tr>
<tr>
<td>Employee age</td>
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<tr>
<td>Employee gender</td>
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<tr>
<td>Employee education</td>
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<tr>
<td>Employee rank</td>
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<tr>
<td>Coworker age</td>
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<tr>
<td>Coworker gender</td>
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<tr>
<td>Coworker education</td>
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<tr>
<td>Coworker rank</td>
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</tr>
<tr>
<td>Dyad co-work experience</td>
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</tr>
<tr>
<td>Employee tenure</td>
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<tr>
<td>Coworker tenure</td>
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<tr>
<td>Task interdependence</td>
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<tr>
<td>Step 2: Main Variables</td>
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<td>Step 3: Interaction Effects</td>
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<td>LGO * Coworker EI</td>
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<td>PPGO * Coworker EI</td>
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<tr>
<td>PAGO * Coworker EI</td>
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</tr>
<tr>
<td>( R^2 )</td>
<td>.186</td>
</tr>
<tr>
<td>( R^2 ) Change</td>
<td>.032</td>
</tr>
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</table>

*Note.* \( N = 150, \) **\( p < .01, \) *\( p < .05, \) †\( p < .10 \) (two-tailed)
on the relationship between learning orientation and knowledge sharing; as suggested, their interaction was positive and significant ($\beta = .24, p < 0.05$). Figure 2 shows the moderating effects of coworker exchange ideology. Thus, this result provides support for Hypothesis 2-A.

On the other hand, Hypothesis 2-B, which posits the moderating effects of coworker exchange ideology on the relationship between prove-orientation and knowledge sharing, was not supported. Finally, the interaction of the avoid-orientation of an employee and coworker exchange ideology shows significant and positive effects ($\beta = .25, p < 0.01$).
Figure 3 shows the moderating effects of coworker exchange ideology. The results show that employees with high avoid-orientation conduct more knowledge sharing toward a coworker with strong exchange ideology and less toward a coworker with weak exchange ideology. Thus, this result provides support for Hypothesis 2-C.

As stated (Table 2), we also notice that a coworker’s rank play a significant role on the employee’s knowledge sharing behavior ($\beta = 0.47, p < 0.01$). On the other hand, contrary to our hypothesis, interaction of prove-orientation and coworker exchange ideology does not affect knowledge sharing significantly. Thus, to clarify these relationships, we conduct additional analyses. First, we conduct a polynomial regression to examine the effects of employee rank and coworker rank on employee’s knowledge sharing to investigate more nuanced and interactive effects of rank. Second, by involving employee’s own exchange ideology as an additional moderator, we examine the three-way interaction effects of employee prove-orientation, employee exchange ideology, and coworker exchange ideology.

The results of polynomial regression are shown in the (Table 3). A polynomial regression analysis is appropriate to investigate fit research (Edwards, 1996). In the same vein, this analysis method is suitable to examine the effects of employee rank and coworker rank, simultaneously. The polynomial regression analysis is based on the following formula:

$$Z = b_0 + b_1X + b_2Y + b_3XY + b_4X^2 + b_5Y^2 + e$$

(X: Employee rank, Y: Coworker rank, Z: Knowledge sharing)

According to (Table 3), employee’s rank is negatively related to knowledge sharing
(β = -1.33, \( p < 0.01 \)), whereas coworker’s rank is positively related to knowledge sharing (β = 0.88, \( p < 0.05 \)). In addition, square term of employee’s rank is positively related to knowledge sharing (β = 0.29, \( p < 0.05 \)), which means that the effects of employee rank on knowledge sharing is U-shaped relationship. On the other hand, however, effects of square term of coworker’s rank and interaction between rank of employee and coworker are not significant one. Overall, (Figure 4) shows the

(Figure 4) Effects of Employee Rank and Coworker rank on Employee Knowledge Sharing
effects of employee rank and coworker rank on employee knowledge sharing.

Moreover, we also examined the three-way interaction effects of employee prove-orientation, employee exchange ideology, and coworker exchange ideology on employee

### Table 4: Additional Hierarchical Regression Analytical Results

<table>
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<th>Variables</th>
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<td>Model 1</td>
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<td><strong>Step 1: Control Variables</strong></td>
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<td>Employee gender</td>
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<td>Coworker tenure</td>
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<td>Task interdependence</td>
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<td><strong>Step 2: Main Variables</strong></td>
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<td>Coworker exchange ideology</td>
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<td><strong>Step 3: Interaction Effects</strong></td>
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<tr>
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<td>-.02</td>
</tr>
<tr>
<td>PPGO * Coworker EI</td>
<td>.20*</td>
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<td>.02</td>
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<td>.186</td>
</tr>
<tr>
<td>R^2 Change</td>
<td>.030</td>
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N = 150, **p < .01, *p < .05, †p < .10 (two-tailed)
knowledge sharing. As stated (Table 4), when only examining the effects of prove-orientation, the moderating effects of coworker exchange ideology become significant one ($\beta = 0.20, p < 0.05$). In addition, three-way interaction effects of employee prove-orientation, employee exchange ideology, coworker exchange ideology on knowledge sharing behavior are significant ($\beta = -0.18, p < 0.05$). (Figure 5) shows the relationship among these variables. When employee exchange ideology is low whereas coworker exchange ideology is high, the relationship between prove-orientation and knowledge sharing is positive. On the other hand, when both employee and coworker exchange ideology are low, the relationship becomes negative one. Finally, when employee exchange ideology is high, the relationship turns into non-significant one. We will further discuss on following section about this issue.

V. Discussion

In this study, we examined the relationship between employee goal orientation and knowledge sharing behavior. Contrary to existing studies, the result of the current study surprisingly showed that the direct effect of goal orientation on knowledge sharing was statistically insignificant. Instead, the results suggested that the knowledge sharing behavior of employees is the interactional function of employee goal orientation
and coworker exchange ideology. First, coworker exchange ideology moderated the relationship between learning goal orientation and knowledge sharing. When the exchange ideology of a coworker was high, the relationship was positive. When coworker exchange ideology was low, employees performed constant knowledge sharing regardless of one’s own learning orientation. Second, coworker exchange ideology moderated the relationship between avoid-orientation and knowledge sharing. When coworker exchange ideology was low, the relationship between avoid-orientation and knowledge sharing was negative. However, when a coworker possessed high exchange ideology, the avoid-orientation of the employee did not influence knowledge sharing. Rather, the employee conducted a moderate level of knowledge sharing behavior.

Thus, we conducted additional analysis which investigates the three-way interaction among employee prove-orientation, employee exchange ideology, and coworker exchange ideology. Although we did not set a specific hypothesis, existing research results suggested that the effects of exchange ideology on employee behavior would be interactive one, rather working independently (Takeuchi et al., 2011). Therefore, we examined the three-way interaction effects on knowledge sharing. Interestingly, as suggested in Model 4 of Table 4, moderating role of prove-orientation became significant one when we exclude the effects of learning goal orientation and avoid-orientation ($\beta = 0.20, p < 0.05$). Moreover, the three-way interaction effects were significant, also ($\beta = -0.18, p < 0.05$). Except when employee exchange ideology is low whereas coworker exchange ideology is high, relationship between prove-orientation and knowledge sharing was generally negative one. In the results, it was a notable point that the moderating role of coworker exchange ideology was not uniformly negative one, in contrast to our hypothesis. When the focal employee’s exchange ideology was high, strong coworker exchange ideology decreased the employee’s knowledge sharing. However, when employee exchange ideology was low, high level of coworker exchange ideology changed the relationship between prove-orientation and knowledge sharing from negative one to positive one.

Although we did not find significant main effects and moderating effects regarding prove-orientation, we suggest the following as alternative explanations to expound these
results. First, in an organization setting that is different from school and experimental settings, an employee with high prove-orientation could try to contribute to the organization because his efforts would not only be helpful in improving his performance (Porath et al., 2006), but would also contribute to the enhancement of organizational performance. As a means of enhancing performance, an employee could choose to perform knowledge sharing. Moreover, it implies the possibility of the existence of another third moderating variable. For example, if employees with strong egocentric orientation also have high degrees of pro-social motivation, they would conduct more extra-role behaviors (Grant et al., 2009). Also, depending on their own goal setting, employees with high prove-orientation could share their knowledge not for their own performance, but for that of the organization. For instance, goal interdependence could moderate the relationship between prove-orientation and knowledge sharing behavior. If the goal of an employee is aligned with those of other coworkers, and if knowledge exchange is indispensable for the attainment of the goal, the employee could actively share knowledge, not for the benefit of the coworkers, but for oneself. If goal interdependence with coworkers is independent of competition, employees with high prove-orientation would neglect to share knowledge because doing so requires fruitless effort and undermines one’s own performance and competitiveness. Therefore, we leave a room for future research to find boundary conditions that moderate the relationship between prove-orientation and knowledge sharing.

In addition, we found an interesting effect among the control variables on knowledge sharing. The formal rank of a coworker had strong positive effects on employee knowledge sharing behavior, whereas coworker age negatively related to the knowledge sharing of employees. Therefore, we conducted a polynomial regression analysis to figure out the effects of employee and coworker rank, simultaneously. As a result, we found that the effect of employee rank on knowledge sharing is U-shaped relationship whereas the effect of coworker rank is positive relationship. This finding can be interpreted in several ways. First, employees would expect more reciprocation from coworkers who are in superior positions. Moreover, employees would share knowledge for their own impression management, wherein they would show off their own
competence and ability via knowledge sharing. As a result, they would conduct more knowledge sharing behavior. The counter-intuitive result is based on the assumption that knowledge sharing would occur from veteran to novice employees. However, this result is not surprising considering the tendency of employees to help others who have the ability, rather than assist others who need to receive help (Van der Vegt, Bunderson, and Oosterhof, 2006). On the other hand, it can be interpreted differently. In contrast to the traditional industrial context that the long experience of employees guarantees their specialty, the skills and abilities required from employees in organizations are shifting because of the rapid changes in technology and environment. For instance, employees with low formal ranks who just entered a company could share their school-learned knowledge to coworkers belonging to high formal ranks. In short, the results can infer the change of current organizations.

Second, the high-ranking coworker could assign a low-ranking employee to work on gathering and reporting information. For example, when a team begins a new and unfamiliar project, the team would assign exploratory information-gathering task to relatively low-ranking employees. The positive relationship between coworker rank and employee knowledge sharing would reflect on the outcome of these tasks. For future research, researchers need to classify the “contents” of shared knowledge. To be specific, knowledge, skills, and ability shared by veteran employees would be very helpful for novice employees, whereas the effects of the knowledge sharing behavior of a novice employee with a coworker and group performance would be skeptical. Even in cases of a new employee’s knowledge sharing, the effects of shared knowledge would be different depending on the content of the knowledge. For instance, the transfer of school-learned knowledge of new employees to the company would contribute to the performance of the members and the group. If new employees are assigned to conduct information-gathering task, and they conducted more knowledge sharing behavior, then their influence on group effectiveness would be relatively small. Therefore, scholars should pay attention not only to “who” shares to “whom,” but also to who shares “what,” because the contents of shared knowledge would have different implications on employee and group performance.
In conducting the present study, we tried to make up for the weak points of existing literature through the following ways. First, this study investigated the role of individual differences in knowledge sharing behavior. Many researchers have neglected studying the micro-foundation of knowledge transfer in an organization despite its importance (Foss et al., 2010). This study attempted to fill the gap of established literature as well. Second, in addition to examining the effects of employee characteristics who share knowledge, this study also investigated the effects of individual differences of coworkers who receive knowledge. In other words, the current study considered the focal employee’s characteristics and examined the effects of a coworker’s characteristics on knowledge sharing of the focal employee. Specifically, we found that a high level of learning goal orientation does not guarantee a high level of knowledge sharing; rather, the relationship depends on the exchange ideology of a coworker who is the recipient of knowledge. This finding shows the possibility of broadening the research of knowledge management by revealing the existence of more nuanced dynamics among employees. Third, by replicating and finding new patterns regarding the relationship of goal orientation and knowledge sharing, we implied the need for future research to study further such relationships. By suggesting different patterns of prove-orientation and avoid-orientation, we revealed the need for finding other boundary conditions between prove-orientation and knowledge sharing.

Besides contributing to theoretical perspectives, we provide implications for practitioners. For existing organizations, the activation of knowledge sharing among employees is critical for gaining a competitive advantage (Barney, 1991; Grant, 1996). The result of this study suggests that the existence of employees with high learning orientation is not sufficient to facilitate knowledge sharing. Instead, knowledge sharing behavior would be in full bloom when employees work with coworkers who follow the norm of reciprocity. The present study showed that employees with high avoid-orientation who have fears about knowledge sharing could contribute to the organization through the existence of coworkers who require and promote knowledge sharing. This finding implies that an employee behaves in a very different way, depending on the combination of personality and individual differences among employees in a group. Thus,
practitioners should be careful in the composition of a team in terms of the personalities of the members. We suggest a new way to promote active knowledge exchanges in an organization.

Nevertheless, the present study also has its limitations. First, data were collected at one point of time, thereby undermining the persuasive power of causality. Moreover, knowledge sharing of employees was measured through a coworker, who might have been influenced by biases toward supervisors. To lessen the possibility of bias, we included several relations and status-related variables as controls. However, in this study, we aimed to investigate inter-personal knowledge sharing among employees. Consequently, supervisors would have limitations because they cannot monitor and see all employee behaviors. In spite of these limitations, we provided more interactive dynamics of knowledge exchange in an organization. This study aims to contribute to the understanding of the nature of knowledge management and determining the importance of employees in organizations.

References


근로자 목표성향과 지식공유행동의 관계에 대한 연구: 동료 교환의식의 조절효과를 중심으로

최 동 원*
정 민 영**
이 지 혜***

요 약

현대 조직에서 효과적 지식 관리는 가치 창출의 핵심 동인으로 간주되어 왔으며, 이는 근로자
의 지식공유행동에 대한 실무적, 학술적 관심을 촉진하였다. 기존의 지식공유행동 관련 연구가
행동의 동인으로 근로자 본인의 성격 특성이나 조직의 택력적 특성에 주목하였다면, 본 연구에
서는 근로자 본인의 특성과 지식공유 수혜자 특성의 상호작용이 지식공유행동의 발현에 미치는
관계를 고찰하고자 한다. 특히, 본 연구는 사회 교환 이론의 관점을 바탕으로, 동료의 교환의식
이 근로자의 목표성향과 지식공유행동 간의 관계를 조절함을 검증하였다. 본 연구의 결과는 조
직 내 지식공유의 촉진을 위해 관리자는 지식공유의 제공자 및 수혜자 양측의 상호작용을 고려
해야 함을 시사하고 있다.

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