

# The Daily Exchange of Social Support Between Coworkers: Implications for Momentary Work Engagement

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We develop a dyadic model of social exchange at work and shed light on how employees exchange support on a daily basis. In addition, we investigate when providing support relates to the work engagement of the provider. We hypothesized that the provider repeats his or her supportive action within a day when the receiver also provides support or when the receiver is engaged. We also predicted that supporting a coworker relates positively with the provider's engagement and that this relationship is strengthened when the support is given to an engaged receiver. To test our hypotheses, we used experience sampling and investigated support provision and work engagement in dyads of coworkers during the morning and afternoon of 4 working days. Multilevel analyses based on 123 dyads ( $N = 418\text{--}692$  data points) revealed that supporting a coworker relates positively to the supporter's engagement and that this relationship is stronger when the support is given to an engaged receiver. Furthermore, results showed that the provider is more likely to repeat his/her supportive action if the receiver also provides support. We did not find a moderation effect of the receiver's engagement on the link between support provision during the morning and support provision during the afternoon. Altogether, our study provides insight on what motivates employees to support their coworkers and when providing support is most engaging. Furthermore, we show that the behavioral assumption of social exchange theory (i.e., reinvesting support in a receiver who reciprocates) exists within a daily work context.

*Keywords:* social exchange theory, prosocial behavior, social exchange, social support, work engagement

From Aristotle to Buddha, history has shown that helping others does not only contribute to the well-being of the receiver but also contribute to the well-being of the provider (Ryan & Martela, 2016). Indeed, a growing body of research on prosocial behavior shows that the act of providing contributes to the well-being of the

provider (Aknin, Barrington-Leigh, et al., 2013; Alden & Trew, 2013; Martela & Ryan, 2016; Weinstein & Ryan, 2010). The act of providing, however, never stands alone. The positive effects of providing experienced by the provider often depend on the behavior of the receiver. For instance, the support provider's sense of social worth (e.g., a sense of being valued by others) or self-worth, as well as the given amount of social support, both increase when the receiver expresses gratitude (Grant & Gino, 2010; Monin, Poulin, Brown, & Langa, 2017; Ryan & Deci, 2000). This implies that the act of providing support as well as the benefits of providing support should not be examined in a vacuum, as the supportive act and its benefits are not independent from the support provider's need to see the reactions of his or her actions.

Social support is considered to be an essential resource for employees' well-being and job performance (Kossek, Pichler, Bodner, & Hammer, 2011), and recent studies have shown that supportive behaviors do not necessarily remain stable over different working days (Lanaj, Johnson, & Wang, 2016; Uy, Lin, & Ilies, 2017). As such, we argue that it is important to gain knowledge not simply on the daily factors that predict support provision, but, most importantly, on the daily factors that make it more likely for a provider to *reinvest* support within days. Our daily approach goes beyond previous research (Knoll, Burkert, & Schwarzer, 2006; Yang, Sliter, Cheung, Sinclair, & Mohr, 2018) addressing supportive exchanges on a weekly, monthly, or yearly basis. This seems important, as different levels of analysis may refer to different processes (George & Jones, 2000). Although daily or

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episodic supportive exchanges are likely to be recalled as concrete actions (Gleason, Iida, Bolger, & Shrout, 2003), reporting supportive exchanges over the past month or year refers to more crystallized perceptions of what generally happens in one's job. Hence, to zoom in on the conditions that contribute to the sustainment of support provision within working days, we presently aim at capturing the daily factors that relate to the "reinvestment" of social support.

Based on social exchange theory (SET) and the work engagement literature (Cropanzano, Anthony, Daniels, & Hall, 2017; Emerson, 1976; Gouldner, 1960; Schaufeli, Bakker, & Salanova, 2006), our first and main aim is to explore the conditions under which the provider of support is most likely to repeat his or her supportive action within a working day, and we identify two such conditions. We expect that this is more likely to happen when (a) the receiver has previously also provided support (thus, making it more likely that the provider will reciprocate), and (b) the receiver is work engaged (i.e., which makes him/her a more positive and a more approachable receiver). Secondarily to our main research question, we examine when support provision is (most) beneficial for the support provider's work engagement. Previous literature has often examined when support provision is exhausting or depleting the provider (Choi, Ilies, & Lin, 2017; Gabriel, Koopman, Rosen, & Johnson, 2018). More similar to our scope, researchers have addressed whether the beneficial effects of the support provision for the support provider depend on the organizational context (Choi et al., 2017; Yang et al., 2018), the provider's perceived positive impact (Aknin, Barrington-Leigh, et al., 2013), the provider's motivation (Weinstein & Ryan, 2010), and the provider's traits (Koopman, Lanaj, & Scott, 2016). What we contribute to this line of research is that the beneficial effects for the provider may also depend on the state (i.e., engagement) of the support receiver (rather than the provider).

In its totality, our model addresses not only when reinvestment of support most likely occurs but also whether the support investment is beneficial for the support provider. In doing so, we aim to

uncover common predictors (i.e., the amount of supportive investment of both parties involved) that may influence different processes (i.e., the benefits of providing support and whether someone is likely to reinvest support).

To achieve our aims, we develop a dyadic model of daily supportive exchange between dyads of coworkers (see Figure 1), in which we examine provided and received social support simultaneously. In doing so, we contribute to the literature in three notable ways. First, we recognize the temporal dynamics of SET (Cropanzano et al., 2017; Cropanzano & Mitchell, 2005; Emerson, 1976) as we investigate the reinvestment of social support within days. Second, our study contributes to the social exchange literature by uncovering the factors that influence the sustainability of support provision between coworkers. As such, we go one step further than previous studies examining the influence of reciprocity behavior on outcomes, such as mood (Gleason et al., 2003) or psychological distress (Liang, Krause, & Bennett, 2001). Namely, we gain insight into whether the reciprocation of support provision by a coworker makes it more likely that a support provider reinvests social support later that day. Third and finally, by investigating social support provision as an interaction process using two sources, we contribute to the social exchange literature by including both the provider and the receiver of support in our model (as recommended by Gabriel et al., 2018).

## Theoretical Background

Many studies on the exchange of social resources make use of SET—a broad conceptual paradigm that can be understood as a family of theoretical models (Cropanzano et al., 2017; Cropanzano & Mitchell, 2005). Accordingly, the social exchange process starts when a coworker (i.e., or a supervisor) treats a target individual in a positive or negative way (Eisenberger, Lynch, Aselage & Rohdieck, 2004). These positive (or negative) treatments are called initiating actions and influence the behavior and feelings of the target person, who is likely to reciprocate with similar positive or

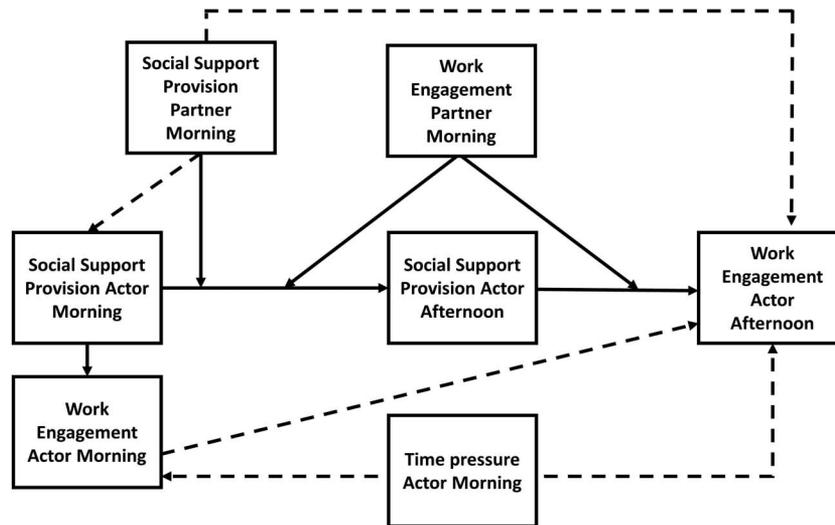


Figure 1. Theoretical model of social support exchange. The dotted lines represent the relationships that we control for.

negative reactions (Cropanzano et al., 2017). According to SET, the reactions of both parties within exchange relationships follow certain rules and norms (Cropanzano & Mitchell, 2005). An important rule that lies at the core of SET is Gouldner's (1960) reciprocity norm, which entails that people are inclined to repay the good deeds of others. In turn, Emerson (1976) stated that "a resource will continue to flow only if there is a valued return contingent upon it" (p. 359). This may mean that, only when a coworker who received the initial support reciprocates the received support by also providing support, the initial support generates a valued return and as such, keeps flowing. Translated to the present daily support context, the initially provided support needs to generate a valued return in order for employees to reinvest support. Following SET and the reciprocity norm, employees who experience that their supportive actions have been reciprocated by a coworker in the morning will be more likely to react positively by reinvesting support during the afternoon (as compared with employees who did not receive support from their coworker in the morning). This reasoning is also in line with Axelrod's (1981) tit-for-tat strategy, suggesting that people are inclined to invest in their partner particularly when the partner shows cooperative behavior first. People are, thus, more likely to mirror generous behavior, rather than to be unconditionally generous. Hence, taking all the aforementioned together, we predict the first hypothesis as follows:

*Hypothesis 1:* The relationship between providing social support within the morning and providing social support within the afternoon is positive when the receiver has provided higher (rather than lower) social support within the morning.

Furthermore, we argue that the repetition of a supportive act is more likely when the receiver expresses positivity and is easy to interact with. Specifically, when a coworker is vigorous and enthusiastic, he or she will be easier to help again as compared with coworkers who make a tired or cynical impression. A construct that reflects such a positive, fulfilling, and work-related state of mind, characterized by vigor, dedication, and absorption, is work engagement (Schaufeli, Salanova, González-romá, & Bakker, 2002). Employees who score higher on work engagement are characterized by a secure attachment (i.e., which reflects the lack of anxiety to get attached to another person) and tend to have good social relationships (Schaufeli, Taris, & Van Rhenen, 2008; van Beek, Schaufeli, & Taris, 2014). This suggests that it is easy to interact with engaged employees and that others are easily attracted to them.

Engaged employees have a tendency to experience and express positive emotions (van Wijhe, Peeters, Schaufeli, & van den Hout, 2011). According to previous research, the positive input from the receiver (i.e., gratitude) motivates the provider to increase the amount of provided support (Grant & Gino, 2010). Specifically, the results from Grant and Gino (2010) show that participants who receive a thank-you note from a recipient are more likely to offer additional help to this recipient and to others. In the present study, we argue that work-engaged employees, who are known to experience and express more positive emotions (van Wijhe et al., 2011), are also more likely to signal agreeableness, acceptance, and appreciation when receiving support from a coworker. This reasoning is in line with previous research showing that positive

emotions facilitate the use of cooperative interpersonal tactics and reduce workplace conflicts (Barsade, Ward, Turner, & Sonnenfeld, 2000). Moreover, engaged employees are likely to be more approachable because positive people attract others (i.e., as compared with more negative or neutral coworkers; Miles, 2009). Hence, based on the aforementioned evidence, we expect that reinvesting support in a colleague is more likely when that coworker was highly engaged during the morning in which support was invested.

*Hypothesis 2:* The relationship between providing social support within the morning and providing social support within the afternoon is stronger when the receiver's work engagement within the morning is higher (rather than lower).

### Can Providing Support Be Engaging?

According to the ancient perspective of Aristotle (Ryan & Martela, 2016), it is the highest purpose of human beings to actualize their inner goodness and virtues, such as friendliness and doing well for others. Through actualizing their inner goodness, individuals have a higher likelihood of experiencing a happy and satisfied life. Why helping others is beneficial can be explained from an evolutionary perspective. According to the indirect reciprocity reasoning (Alexander, 1987), our ancestors increased their chances of survival by helping others, as this would make the receivers more willing to return the favor later on. Indeed, social exchange studies show that people with a history of helping others are more likely to receive help from others (Antonucci, Fuhrer, & Jackson, 1990). In addition, people's inherent helping tendency is not only motivated by self-serving motivation but exists because people have a genuine concern for the welfare of others. Hepach, Vaish, and Tomasello (2012) tested this proposition by examining participants' physical reactions when the participants themselves performed the helping behavior versus when the participants saw that a third party did the helping. Their findings showed that participants reacted psychically under both conditions. Based on this, the authors concluded that people have a genuine concern for the well-being of others, as the results could not be explained by a self-serving motive.

Although the majority of studies in the organizational domain have investigated the effects of receiving social support (Viswesvaran, Sanchez, & Fisher, 1999), an increasing number of studies suggests that *providing* support can also be beneficial for the provider's well-being within an organizational context (Uy et al., 2017). According to Kahn's (1990) framework of employee engagement, supporting one's coworkers is a form of investing energy into the job through which people create personal meaningfulness and engage themselves to their work (Kahn, 1990; May, Gilson, & Harter, 2004).

Presently, we are interested in the immediate consequences of the provided support on the provider's momentary work engagement. According to previous theoretical reasoning and empirical evidence (Martela & Ryan, 2016), providing support and helping others produces an immediate sense of beneficence. As such, the engaging effects of providing support to a coworker appears to be a "here and now" process in which the engaging effects of providing support are more strongly and clearly experienced right after the act itself. In addition, because individuals are likely to work on other tasks during following work periods, the subse-

quent tasks may be more or less satisfying than those in the previous period (Bakker & Oerlemans, 2016)—and therefore may mask the effects of support provision. Taken together, we expect that the engaging effects of providing support to a coworker take place on the present moment, thus, occurring within the morning and also within the afternoon. As such, we hypothesize the following:

*Hypothesis 3:* Social support provision relates positively to work engagement of the support provider within the morning and within the afternoon.

Furthermore, we argue that supporting a coworker is more engaging when the support is given to an engaged coworker. We expect the level of daily work engagement of the support receiver to be relevant for the support provider because previous findings have shown that work engagement tends to crossover from one coworker to another, particularly on days when colleagues frequently interact and talk through e-mail, by telephone, or face-to-face (Bakker & Xanthopoulou, 2009). According to Westman (2001), a crossover is a dyadic, interindividual transmission of well-being between closely related individuals. We reason that the engagement of the partner during the morning strengthens the engaging potential of the support provision later on the day (rather than in the morning) for two main reasons. First, it may take some time for the energy and positivity of a coworker to be transferred to another coworker (cf. Bakker & Xanthopoulou, 2009). As such, the partner's work engagement during the morning has more time to be noticed by the provider and more strongly influences the provider as compared with the afternoon engagement. Second, according to the primacy effect, the first piece of information that someone perceives generates an increase in attention to that stimulus (Anderson, 1965). Following this primacy principle, the partner's work engagement during the morning, which indicates the level of engagement at the start of the day, is most likely a stronger signal to the provider because it is something that the provider notices right at the beginning of his or her day. Later on, when he or she is perhaps more absorbed in subsequent work tasks, the partner's engagement may have less impact.

Additionally, we argue that if the support is given to an enthusiastic and energized receiver, the support provider has more opportunities to feel appreciated and assume that the support is well invested. Feeling appreciated and socially valued is triggered when the provider receives positive feedback (Grant & Gino, 2010). Because engaged employees tend to express positivity and give positive feedback (Bakker, Demerouti, & Sanz-Vergel, 2014), an engaged receiver is likely to be a pleasant person to deal with. We suggest that helping someone who has been positive and perceived as appreciative during the morning makes the supportive act during the afternoon easier and more pleasant, thereby strengthening its engaging effect for the support provider. Therefore, our fourth hypothesis reads as follows:

*Hypothesis 4:* The relationship between providing social support within the afternoon and work engagement of the provider within the afternoon is stronger when the receiver's work engagement within the morning is higher (rather than lower).

## Method

### Procedure and Sample

First, participants filled in one general survey that we sent them via e-mail. Next, to capture social support as part of real-life and momentary work experiences, we used a fixed interval experience sampling methodology (Ohly, Sonnentag, Niessen, & Zapf, 2010). These samplings were spread over 4 working days, each day comprising one measurement in the morning (between 11 a.m. and 12.30 a.m.) and one measurement in the afternoon (between 4 p.m. and 7 p.m.). Participants were invited to download an application on their smartphone on which they would receive the experience sampling-surveys. Six participants who were unable to install the application made use of a computer, tablet, or paper and pencil version.

In line with other dyadic data studies (Bakker, Petrou, & Tsaousis, 2012; Bakker & Xanthopoulou, 2009), we advertised the study toward participants working in a wide range of different sectors and organizations using social media, such as LinkedIn and Facebook, in the Netherlands. All participants signed up voluntarily (i.e., there was no external incentive), and we sampled the dyads that had the most contact every day. Specifically, we asked every participant (i.e., the "primary participant") who signed up, if he or she had contact with other coworkers at least three times per day. Next, we asked the primary participant to identify the coworker with whom he or she had most regular contact with. If the primary participant indicated more than one coworker, we chose the coworker who was most relevant to our study. In doing so, we followed two principles: (a) which coworker is available for the study during the next days (i.e., is not ill, on holiday, or has meetings outside the organization), and (b) which coworker is willing to take part in the study? We thus selected the dyads that were in contact with each other the most, and not coworkers who liked each other the most. We tested explicitly whether employees considered each other to be friends with a single item (i.e., "This colleague could be a friend of mine" from the likability scale of Wayne & Ferris, 1990). Preliminary descriptive statistics for this item reveal that not all coworkers want to be friends, and the present sample covers large variation in terms of likability ( $M = 3.71$ ,  $SD = 0.98$ , on a scale from 1 to 5, with 33.2% of the sample being neutral to the possibility of being friends and even 9.1% of the sample excluding the possibility of friendship).

To guarantee confidentiality, responses of the dyad members were linked through an anonymous code provided by the researchers. In total, 254 participants signed up, of which eight participants did not form a dyad. After excluding participants who did not form a dyad, 246 participants remained, resulting in 123 dyads ( $N = 418$ –692 data points). Compared with other actor-partner interdependence model (APIM) studies, this appears to be a relatively large sample (Bakker & Xanthopoulou, 2009; Peeters, Arts, & Demerouti, 2016). We used all the data points from all 246 participants, also the moments in which only one of the participants from a dyad filled in the questionnaire. Participants included 174 women (71%) and 70 men (29%), with a mean age of 36.12 years ( $SD = 12.02$ ). On average, coworkers worked 7.53 years together ( $SD = 8.03$ ) and worked 34.90 hr per week ( $SD = 8.16$ ).

Of all participants,<sup>1</sup> 73% finished higher education (47% university and 26% applied sciences), 16% completed a vocational training, and the other 11% finished high school. Finally, 34% of the sample was employed in the health care sector, 31% in the research and educational sector, 7% in the cultural sector, 3% worked for governmental agencies, and the remaining 25% was employed in various other sectors.

## Measures

**Work engagement.** When conducting experience sampling methodology studies, Ohly et al. (2010) recommended using short scales or even single-item measures. We therefore selected one item from each dimension of the Utrecht Work Engagement Scale (Schaufeli et al., 2006) following previous work of Reina-Tamayo, Bakker, and Derks (2017). All items were already available in Dutch (i.e., the language of the study; Reina-Tamayo et al., 2017) and validated by Schaufeli, Shimazu, Hakanen, Salanova, and De Witte (2019). Prior to all items, we instructed the participants with the following text “As you are filling in the questionnaire right now, we ask you to answer these questions with regard to your last work moment, just before starting this questionnaire.” The items were as follows: “Right now, I feel full of energy” (Vigor), “Right now, I feel enthusiastic about my job” (Dedication), and “Right now, I am immersed in my work” (Absorption; scale ranging from 1 [*not at all*] to 7 [*to a very large extent*]). Cronbach’s  $\alpha$  ranged from .81 to .91 on the eight measurement moments. In addition, we calculated the within-person reliability, defined as the internal consistency of a set of responses collected in each measurement occasion by Nezlek (2017). Within-person Cronbach’s  $\alpha$  ranged from .73 during the mornings to .75 during the afternoons. Following the classification Nezlek (2017) referred to, these reliabilities are substantial (Shrout, 1998).

**Social support.** Social support was assessed using the scale developed and validated by Peeters, Buunk, and Schaufeli (1995; based on House, 1981) in Dutch, from which we selected the three main types—instrumental, informative, and emotional support (House & Kahn, 1985). We adapted all items to match the time and person perspective. This means that we formulated three items measuring the amount of support that was given during the morning and during the afternoon. Cronbach’s  $\alpha$  ranged from .70 to .82 on the eight measurement points. The within-person reliability ranged from  $\alpha = .49$  during the mornings to  $\alpha = .54$  during the afternoons. Following the classification of Nezlek (2017), these estimates represent fair reliability (Shrout, 1998). An example item is “This afternoon, I gave my coworker advice about how to approach an issue” (scale ranging from 1 = *not at all*, 2 = *yes, to a small extent*, 3 = *yes, to some extent*, 4 = *yes, to a large extent*, to 5 = *yes, to a very large extent*).

**Control variables.** Because work engagement of employees is known to be positively influenced by job resources and negatively by job stressors (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001), we decided to control for the received amount of social support (measured as provided support reported by the coworker) and employees’ time pressure in the analyses. Numerous studies show that received support associates positively with the support receiver’s work engagement (for instance, see a review on daily associations between support and work engagement by Bakker [2014]), whereas time pressure impairs employees’ work

engagement (De Spiegelaere, Van Gyes, De Witte, & Van Hooetgem, 2015). As such, we tested the effects of support provision on the provider’s work engagement over and above the effect of common and widely supported predictors of work engagement. We measured received support with the aforementioned social support scale, using the provided support as rated by the partner. Time pressure was assessed with the item “I have to work under time pressure” (see also De Spiegelaere et al., 2015).

## Statistical Analyses

In the present study, we examined dyads of coworkers, as the data of the two coworkers are not independent from each other. This is because both coworkers work together in the same work environment. To study nonindependent data, we analyze our data using the APIM (Cook & Kenny, 2005). For details on how data sets are structured in APIM, we refer the reader to Cook and Kenny (2005). APIM allows for a simultaneous examination of the direct effect of an actor’s predictor on the outcome of the actor (i.e., actor effect) as well as an examination of the actor’s predictor on his or her partner’s outcome (i.e., partner effect). With this method, it does not matter which direction (partner to actor or actor to partner) is reported; the results are the same because all employees in the sample are both actors and partners. Furthermore, we tested whether the results differed for heterogeneous (i.e., male and female coworkers) or homogeneous (i.e., two male or two female coworkers) dyads and found no differences.

To test our hypotheses, we built a structural equation model using Mplus Version 7 (Muthén & Muthén, 1998–2012) and we follow the multilevel modeling framework of Zhang, Zyphur, and Preacher (2009) to avoid biased estimations (Preacher, Zyphur, & Zhang, 2010). We also followed previous studies that focused on the within-day effects of support provision (Uy et al., 2017) or used a similar design (Huang, Chiaburu, Zhang, Li, & Grandey, 2015). Moreover, when models include interaction terms, such as the present model (see Figure 1), it seems best to not interpret the main effects within the models containing the interactions (Aiken, L. S., West, S. G., & Reno, 1991). Therefore, we first estimate a model including the intercepts (i.e., social support afternoon, work engagement morning and afternoon), the predictors and control variables (i.e., actor’s support provision during the morning and afternoon, partner’s support provision during the morning and actor’s and partner’s work engagement during the morning, and actor’s time pressure) to test the main effects hypothesis in Model 1. Next, to test the interaction hypotheses, we include the interaction terms in Model 2 (i.e., interaction term between actor’s and partner’s support provision during the morning, between actor’s support provision and partner’s work engagement during the morning, and between actor’s support provision during the afternoon and partner’s work engagement during the morning). All momentary-level (Level 1) variables were group-mean centered (i.e., centering each individual score on a variable relative to the individual’s mean on that variable score). To avoid multicollinearity between the predictors and interaction terms, we first centered the predictor variables and then multiplied them to form the interaction terms

<sup>1</sup> From the total sample of 246 participants, the information of 40 participants was missing on the question in what sector participants were working.

(Cohen, Cohen, West, & Aiken, 2003). We used the  $-2\log$ -likelihood difference test to analyze the differences in fit between the models. We plotted the interactions using Preacher et al.'s (2006) online tool for plotting two-way interaction effects in hierarchical linear modeling.

### Results

The means, *SDs*, and correlations of all study variables are reported in Table 1. We examined the intraclass correlation coefficients for all study variables and report them in Table 1. An intraclass correlation coefficient represents to what extent the differences between the samplings can be explained by individual differences. Hence, we conclude that a substantial part of the variance is situated on the lower level, and a multilevel analysis is justified.

#### Model Fit

Because the models in this article are not nested, we use the Akaike information criterion (AIC) to examine the model fit. Overall, a lower AIC value represents a better fitting model (Burnham & Anderson, 2004). As can be seen in Table 2, the AIC value for the interaction model (Model 2) represents a better fit to the data as compared with the direct relationships only model (Model 1;  $\Delta AIC = 402.654$ ; see Table 2 for all model comparisons).

#### Hypothesis Testing

First, we examined the results for our first hypothesis, which stated that the relationship between actor's support provision (i.e., morning) and subsequent support provision (i.e., afternoon) would be positive when the partner provided higher (vs. lower) social support (i.e., morning). Consistent with this prediction, results show that the interaction term is a significant predictor of actor's support provision (i.e., afternoon;  $\beta = .14$ ,  $SE = .06$ ,  $t = 2.276$ ,  $p = .023$ ; Table 2, Model 3). Next, we conducted a simple slope analysis based on Preacher, Curran, and Bauer (2006) and estimated values at 1 *SD* above and below the mean of the partner's support provision during the morning. We assessed the slopes between actor's support provision during the morning and actor's support provision during the after-

noon when the partner provided higher support (+1 *SD*), and when the partner provided lower support (-1 *SD*). Figure 2 shows that when the partner provided higher support (+1 *SD*), the slope was positive and significant (estimate = .22,  $SE = .11$ ,  $z = 2.05$ ,  $p = .040$ ). In contrast, when the partner provided lower support (-1 *SD*), the slope between actor's support provision in the morning and actor's support provision in the afternoon was not significant (estimate =  $-12$ ,  $SE = .11$ ,  $z = -1.11$ ,  $p = .266$ ). Thus, particularly when the partner provided support during the morning, the actor provides social support during the afternoon again. The results support Hypothesis 1.

Furthermore, we tested whether the relationship between actor's support provision during the morning and afternoon depends on the level of the partner's work engagement during the morning (i.e., Hypothesis 2). In Table 2, Model 3, it can be seen that the interaction term between actor's support provision (i.e., morning) and the partner's work engagement (i.e., morning) is not a significant predictor of the actor's support provision during the afternoon ( $\beta = .01$ ,  $SE = .06$ ,  $t = .144$ ,  $p = .885$ ). This means that the relationship between actor's support provision during the morning and the support provision during the afternoon is not moderated by the partner's work engagement, and Hypothesis 2 is rejected.

The results regarding Hypothesis 3 (Table 2, Model 1) show that above and beyond the effect of the control variables on actor's work engagement during the morning and afternoon (i.e., partner's support provision during the morning and actor's experienced time pressure), there is a significant relationship between actor's support provision and work engagement during the morning ( $\beta = .17$ ,  $SE = .06$ ,  $t = 2.92$ ;  $p = .003$ ) and between actor's support provision and work engagement during the afternoon ( $\beta = .14$ ,  $SE = .06$ ,  $t = 2.35$ ;  $p = .019$ ). The data lend support to Hypothesis 3.

Finally, we tested Hypothesis 4, stating that the relationship between actor's support provision (i.e., afternoon) and actor's work engagement (i.e., afternoon) will be stronger when the partner was highly work engaged during the morning (rather than low work engaged). Results in Table 2 reveal that the interaction term of actor's support provision with partner's work engagement during the morning is a significant predictor

Table 1  
Means, Standard Deviations and Pearson Correlations Between the Study Variables

| Study variables                               | <i>M</i> | <i>SD</i> | 1          | 2          | 3          | 4          | 5          | 6          | 7          | 8          | 9          |
|---|----------|-----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 1. Actor providing social support morning     | 2.32     | 0.95      | <b>.32</b> | .42**      | .50**      | .29**      | .01        | .21**      | .12*       | .11*       | .10        |
| 2. Partner providing social support morning   | 2.38     | 0.96      | .59**      | <b>.32</b> | .17**      | .67**      | .06        | .26**      | .09        | .14*       | -.14*      |
| 3. Actor providing social support afternoon   | 2.43     | 0.95      | .04        | -.06       | <b>.36</b> | .46**      | .09        | .26        | .34**      | .30**      | .00        |
| 4. Partner providing social support afternoon | 2.29     | 0.97      | .40**      | .52**      | -.01       | <b>.37</b> | .07        | .47**      | .22**      | .35**      | -.13*      |
| 5. Actor work engagement morning              | 4.89     | 1.21      | -.01       | .01        | -.08       | .02        | <b>.44</b> | .14**      | .65**      | .19**      | .18**      |
| 6. Partner work engagement morning            | 4.79     | 1.23      | .27**      | .64**      | .03        | .39**      | .04        | <b>.46</b> | .25**      | .75**      | -.04       |
| 7. Actor work engagement afternoon            | 4.86     | 1.16      | .08        | .10        | .11        | .03        | .32**      | .05        | <b>.42</b> | .22**      | .04        |
| 8. Partner work engagement afternoon          | 4.76     | 1.29      | .24**      | .42**      | .04        | .68**      | .04        | .64**      | .07        | <b>.44</b> | -.00       |
| 9. Actor time pressure morning                | 3.27     | 1.34      | -.02       | .01        | -.01       | .03        | .02        | .03        | -.10       | .01        | <b>.57</b> |

Note. Correlations above the diagonal are within-person correlations. Correlations below the diagonal are person-level correlations aggregated over the 4 study days. Means and *SDs* are person-level means. Between the within- and person-level correlations, the intraclass correlation coefficients are presented in bold numbers.

\*  $p < .05$ . \*\*  $p < .01$  (two tailed).

Table 2  
Standardized Regression Coefficients for the Model Predicting Actor's Work Engagement During the Morning and Actor's Support Provision and Work Engagement During the Afternoon

| Level and variable   | Direct relationships model (Model 1)        |   |   | Interaction model (Model 2)                 |   |   |
|--|---|---|---|---|---|---|
|  | Support provision afternoon<br>$\beta$ (SE) | Work engagement morning<br>$\beta$ (SE) | Work engagement afternoon<br>$\beta$ (SE) | Support provision afternoon<br>$\beta$ (SE) | Work engagement morning<br>$\beta$ (SE) | Work engagement afternoon<br>$\beta$ (SE) |
| Mornings (Level 1)   |   |   |   |   |   |   |
| Support provision actor  | .04 (.07)                                   | .17** (.06)                             |   | .05 (.07)                                   | .14* (.07)                              |   |
| Support provision partner  | -.04 (.07)                                  | -.07 (.06)                              |   | -.03 (.07)                                  | -.06 (.07)                              | -.07 (.06)                                |
| Work engagement actor  | .06 (.06)                                   |   | .26*** (.05)                              | .03 (.06)                                   |   | .18** (.06)                               |
| Work engagement partner  | .02 (.06)                                   |   | .02 (.05)                                 | .01 (.06)                                   |   | -.05 (.06)                                |
| Time pressure  |   | -.02 (.05)                              | -.12 (.05)                                |   | -.10 (.06)                              | -.10 (.06)                                |
| Afternoons (Level 1)   |   |   |   |   |   |   |
| Support provision actor  |   |   | .14* (.06)                                |   |   | .14* (.06)                                |
| Interactions (Level 1)   |   |   |   |   |   |   |
| Providing Support Actor Morning $\times$ Providing Support Partner Morning |   |   |   | .14* (.06)                                  |   |   |
| Providing Support Actor Morning $\times$ Work Engagement Partner Morning   |   |   |   | .01 (.06)                                   |   |   |
| Providing Support Actor Afternoon $\times$ Work Engagement Partner Morning |   |   |   |   |   | .14* (.06)                                |
| Residual variance  | .99*** (.01)                                | .98*** (.02)                            | .89*** (.03)                              | .98*** (.02)                                | .97*** (.025)                           | .91*** (.03)                              |
| Additional information   |   |   |   |   |   |   |
| BIC  |   | 2,088.567                               |   |   | 1,690.393                               |   |
| AIC  |   | 2,018.517                               |   |   | 1,615.863                               |   |
| $\Delta$ AIC   |   |   |   |   | 402.654                                 |   |

Note. AIC = Akaike information criterion; BIC = Bayesian information criterion. Standardized coefficients ( $\beta$ ) are reported.  
\*  $p \leq .05$ . \*\*  $p \leq .01$ . \*\*\*  $p \leq .001$ .

of actor's work engagement during the afternoon ( $\beta = .14$ ,  $SE = .06$ ,  $t = 2.30$ ,  $p = .022$ ). This means that the positive relationship between social support provision and work engagement is moderated by the partner's level of work engagement during the morning. Simple slope analyses (see Figure 3) reveals that when the partner reported low ( $-1 SD$ ) work engage-

ment, the slope between actor's support provision and work engagement was not significant (estimate = .02,  $SE = .09$ ,  $z = 0.25$ ,  $p = .799$ ), whereas when the partner was highly engaged ( $+1 SD$ ), the slope between actor's support provision and actor's engagement was positive and significant (estimate = .30,  $SE = .09$ ,  $z = 3.28$ ,  $p = .001$ ). In other words, when the social support is given to a partner who was engaged during the morning, there is a positive relationship between the actor's support provision and work engagement during the afternoon over and above the effects of the provider's job resources and job demands, which supports Hypothesis 4.

### Discussion

With the present study, we recognize the temporal dynamics of social exchange and address it as a behavioral process that fluctuates within and between days. As such, we show that employees who receive support are more likely to reinvest social support within the same day. This means that support provision during the morning and the reciprocation of the support during that same morning stimulate the reinvestment of support during the afternoon. Furthermore, we address the social support provision as an interaction process that is influenced by at least two parties. In doing so, we respond to calls from previous researchers to include assessments from others at work such as other ratings from coworkers (Gabriel et al., 2018). In what follows, we discuss the theoretical contributions made by this study.

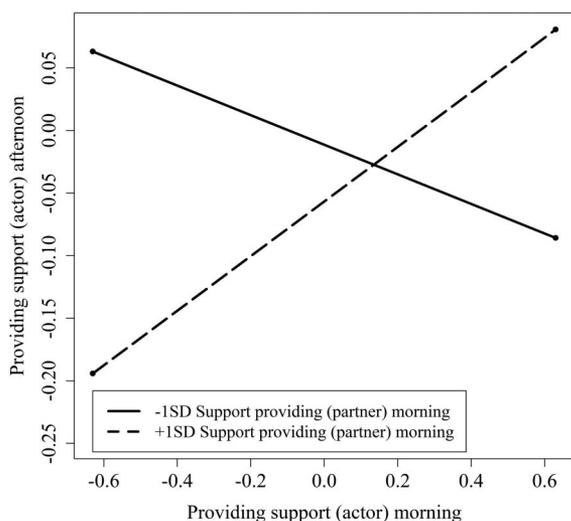


Figure 2. Interaction effect of social support provision of the actor and partner in the morning on social support provision of the actor in the afternoon.

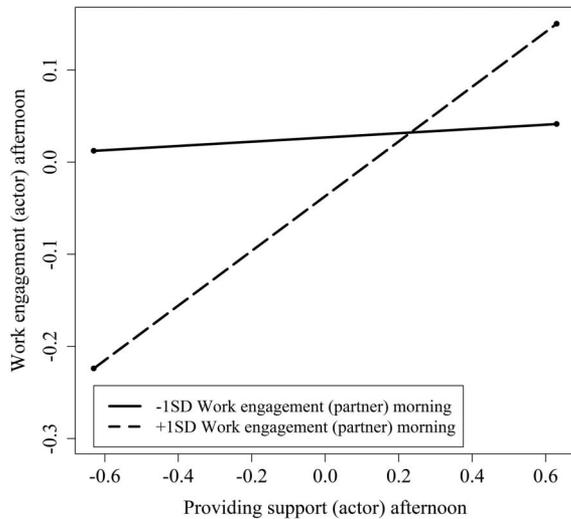


Figure 3. Interaction effect of social support provision of the actor in the afternoon and work engagement of the partner in the morning on work engagement of the actor in the afternoon.

### Reinvestment of Support

In line with the premises of SET (Emerson, 1976; Gouldner, 1960), our findings suggest that people indeed follow the norm of reciprocity in supportive exchanges with their coworkers. Specifically, we found that when a coworker provided support during the morning, an employee is motivated to support the coworker again during the afternoon. The finding that reciprocation by the receiver leads the provider to provide support again confirms a basic tenet of SET (Emerson, 1976; Gouldner, 1960) from a novel perspective. Namely, by capturing the behavioral actions and reactions of both actor and partner, the current findings support the reciprocity norm (Gouldner, 1960) with repeated-measurement data. As such, it becomes clear that reciprocity is not simply an important requirement for people to be motivated to invest resources in a relationship, but also to *reinvest* into a relationship or, in other words, to *sustain* a certain social exchange.

The findings of the present study suggest, however, that the motivation to reinvest support into the relationship with a coworker is not influenced by the partner's level of work engagement. We expected this because highly engaged employees are known to be enthusiastic and positive employees who are easy to interact with, which would make it more likely that a support provider would provide support again. Next to the motivation to help "easy" targets, employees may also be motivated to support coworkers with low work engagement because they are in need of support. According to the empathy-altruism hypothesis, employees are willing to help their coworkers because they empathize with them (Batson, 1998). Based on research showing that prosocial and pro-self-motivation can coexist within a single individual (Krueger, Hicks, & McGue, 2001), it seems plausible that people can be motivated to do good for others and at the same time being motivated to do good for themselves. Employees may thus be motivated to invest support in highly engaged coworkers because it is enjoyable to

do so, while simultaneously, they could be motivated to support low engaged coworkers, because they feel empathy toward them. This may explain why we did not find an interaction effect of the partner's work engagement between the subsequent support investments.

### When Is Providing Support Engaging?

The findings of the present study largely support the claim that helping others can be good for the supporter's well-being (Ryan & Martela, 2016). We expand this claim and apply it to an organizational context. Although no studies have linked the act of daily support provision to the specific concept of work engagement directly yet, previous studies did show a positive relationship with closely related concepts (e.g., happiness, Aknin, Barrington-Leigh, et al., 2013; positive affect, Alden & Trew, 2013; social worth, Grant & Gino, 2010; and subjective well-being, Weinstein & Ryan, 2010). The present findings suggest that, in addition to helping others, the providers of support optimize their own work experience. Moreover, engagement theory and empirical evidence also suggest that highly engaged employees are likely to invest effort in their work and show organizational citizenship behaviors (Babcock-Roberson & Strickland, 2010; Bakker et al., 2012). Hence, combining the present finding with previous findings and engagement theory, it can be argued that engaged employees may, in fact, experience gain cycles whereby their helping strategies enhance their engagement even further. Future research could investigate possible reciprocal links between providing support and work engagement.

In addition, the results show that when the support is given to a coworker who was engaged that morning, the provider's own engagement increases. This finding is in line with our reasoning that the vigor and positivity of the coworker ensure that the subsequent act of supporting a coworker is even more engaging for the support provider (Grant & Gino, 2010). Theoretically, the finding that it matters to whom the support is given for the support provider's engagement advances existing literature. Several studies have highlighted different parts of the relationship between support provision and its benefits. Previous research has shown that the beneficial effects of supporting others depend on the general organizational context (Choi et al., 2017; Yang et al., 2018). Other studies show that the benefits of helping depend on the provider's perceived positive impact (Aknin, Dunn, Whillans, Grant, & Norton, 2013), the provider's motivation (Weinstein & Ryan, 2010), and the provider's traits (Koopman et al., 2016). What the present study contributes to this line of research is that the beneficial effects of providing support for the provider additionally depend on the behavior (i.e., engagement) of the support receiver.

In sum, the present research results suggest that for reinvestment of resources to occur, reciprocation is needed, as people want to sustain an equal exchange relationship with their coworkers. In addition, by providing support to a coworker, the support provider may optimize his or her own work experience. This happens particularly when the support is given to a receiver who has signaled that he or she is highly engaged in work on that day. These findings imply that although reinvesting resources could be strategic and conditional ("I give again

because you also gave”), the engaging potential of support provision is not (“When I give, I feel engaged, especially when you were engaged”).

### Limitations

A possible limitation of this study is that the present study focused on the immediate (i.e., quick) effects of support provision on the support provider’s work engagement. Future studies may want to investigate possible slow effects of support provision on the support provider’s work engagement within days or across days. Specifically, we expect that to capture possible slow effects of support provision on the support provider’s work engagement at a later point in time, research may benefit from a more cognitive approach, adopting psychological moderators such as capitalizing (i.e., turning to others to share positive experiences; Gable & Reis, 2010). Moreover, it is likely that in addition to one’s main coworker, social exchange processes may take place between multiple coworkers. As such, it may be interesting for future research to consider the factors that influence the exchange of social support within work groups, for example, via network analysis. Furthermore, we controlled for the received amount of support in the relationship between support provision and the provider’s work engagement using a measure of provided support as reported by the coworker. Alternatively, future studies may want to control for self-perceived support. Because other ratings and self-ratings of social support may differ, future studies may want to investigate what the impact is of self-perceived social support. It is conceivable that the *perception* of received support is even more important than the actual support, as it is through cognition that individuals make assessments (Lakey & Cassady, 1990). Another limitation of this study concerns the relatively low within-person reliability of the support measure, which ranged from  $\alpha = .49$  to  $\alpha = .54$ . This low reliability may be due to the fact that the support that is provided may fluctuate considerably between days and within days (from work episode to work episode). Although the estimates indicate a fair reliability and can be seen as acceptable, given the design of the study (cf. Nezlek, 2017; Shrout, 1998), preferably the internal consistencies would have been higher. Finally, although the results reveal that support provision predicts the provider’s work engagement over and above the effect of job demands, job resources, and previous levels of work engagement, we cannot conclude causality. Hence, it may be interesting to conduct an intervention study in which the amount of provided support is manipulated (e.g., by training participants to support their coworkers) to further investigate whether support provision, in fact, is able to enhance employee’s engagement.

### Practical Implications and Conclusion

With this study, we show that supportive exchanges are more likely to be successful when both parties in a dyad contribute to the exchange. In addition, we show that supporting coworkers can be seen as a behavioral strategy that providers can use to stay engaged in their work. Hence, supervisors may want to empower, encourage, or provide opportunities to employees to help and support one another. This could be done, for

instance, by shaping a culture where offering and receiving help is accepted and valued or via more proactive methods (e.g., assigning a “buddy” to newcomers or to employees who may need this). Most importantly, we note that creating a workforce where most employees (and, thus, also the receivers) are engaged will maximize the potential of supportive behaviors. Helping engaged employees makes the act of providing easier, more pleasant, and more worthwhile.

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