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Outsourcing Self-regulation:

Daily Delegation as an Antidote to the Negative Consequences of Ego Depletion

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ABSTRACT

Effective leadership requires constant exertion of self-control at work. Yet, it is not always the case that leaders can wake up on the right side of the bed, feeling recharged and energized. In this study, we examine whether and how leaders' experiences of ego depletion before work influence their perceived work goal progress, and what they can do on a daily basis to counteract these effects. Drawing from integrated self-control model and research on delegation, we argue that before-work ego depletion negatively influences leaders' attention at work, and further hinders their work goal progress. We further theorize that daily delegation can mitigate the negative consequences of before-work ego depletion. Across two studies using experience sampling methodology, our hypotheses are supported with data collected from leaders in China and the United Kingdom. Theoretical and practical implications are discussed.

Keywords:

ego depletion, self-control, attention, delegation, leadership

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INTRODUCTION

The nature of managerial work is characterized as fragmented and demanding. A typical day of managerial work often consists of 90% of trivial activities that could be completed within 10 minutes and 10% of important ones that require longer than an hour (Mintzberg, 1973), and requires leaders to swiftly shift their attention among different tasks. Frequent interruptions from subordinates, peers, superiors, and outsiders are part of leader's everyday work life, and further add to the demands on leaders to constantly exert self-control to stay focused at work (Yukl, 2013). However, leaders might not always bring to work their full capacity and motivation for self-control at the start of the workday. Late-night use of smart phones for work purpose and a poor night of sleep often result in a state of ego depletion in leaders (Barnes et al., 2015; Lanaj et al., 2014), which refers to "a temporary reduction in one's capacity or willingness to engage in volitional action" (Barnes et al., 2011, p. 170).

Lacking self-control is detrimental to leader's daily effective functioning. When leaders are ego-depleted, they are more likely to abuse subordinates, withhold efforts to go beyond the call of duty, and experience higher job stress and lower work engagement (Barnes et al., 2015; Courtright et al., 2015; Johnson et al., 2014; Lanaj et al., 2014; Lin et al., 2016; Weiss et al., 2018). Although evidence about the negative consequences of ego depletion on leaders is mounting, less is known about whether and why feeling ego-depleted at the start of the workday influences leader's daily productivity or work goals progress, which has already been at stake with the constant use of interruptive technologies (Rosen et al., 2019).

Empirical evidence has accumulated and supported that ego depletion caused by prior exertions of self-control results in worse performance in a subsequent task within the short-term setting of lab studies (Baumeister et al., 1998; Hagger et al., 2010; Muraven & Slessareva, 2003). However, leaders daily work is more than just completing one single task – it consists of performance episodes that are structured around multiple goals and objectives as well as unpredictable interruptions and occasional restorative opportunities at work (Beal et al., 2005). As such, the relationship between leader's before-work ego depletion and daily work goal progress and its mechanism are far from certain.

If feeling ego-depleted at the beginning of the workday does hinder leader's work goal progress, the next question is what can leaders do to counteract these negative effects. Potential antidotes to the aversive effects of ego depletion include a wide range of micro-break activities, such as taking short naps, drinking caffeinated or sugary beverages, chatting with coworkers on nonwork-related topics, surfing the internet, and checking personal SNS (Hunter & Wu, 2016; Kim et al., 2017; Trougakos & Hideg, 2009). However, these practices might not be practical or desirable for leaders and situ work solutions are necessary (Lanaj et al., 2019). While Lanaj and colleagues developed an intervention for leaders to reduce before-work depletion, identifying actionable strategies that leaders can adopt at work after feeling ego-depleted may offer new theoretical insights and add practical value for leaders and organizations.

In this study, we draw on integrated self-control theory (Kotabe & Hofmann, 2015, 2016) and take a within-person approach to examine how before-work ego depletion influences leader's work goal progress. Specifically, we theorize that before-work ego depletion reduces leader's motivation for self-control and hinders leader's work goal progress through dampening their attention at work. Attention is a finite cognitive resource essential for task performance

(Esterman & Rothlein, 2019). To stay attentive on the task at hand, it requires leader to resist off-task attentional demand and regulate their focus of attention on the focal task (Beal et al., 2005). The accomplishment of each task will then accumulate to influence leader's perception of their work goal progress.

Second, inspired by the idea of self-regulatory outsourcing (Fitzsimons & Finkel, 2011), we propose that delegating task and authority to subordinate is an effective strategy to buffer the negative impacts of before-work ego depletion on attention at work, and thus work goal progress. Delegation is one of the key leadership behaviors that have been shown to benefit employees (Chen & Aryee, 2007). While much has been written about the importance of and the guidelines for effective delegation (e.g., O'Reilly & Pfeffer, 2000; Tracy, 2013), empirical evidence is lacking on how delegation can in fact benefit leaders themselves (see Garicano & Hubbard, 2016 for an exception on delegation and pay). We argue that delegating behavior reduces additional demands on and enhances leader's motivation for self-control. Therefore, on days when leader delegates more to subordinate, the adverse effects of feeling ego-depleted before work will be weakened.

Figure 1 shows our conceptual model in full. We test our model in two studies using experience-sampling methodology with data collected from leaders in different countries (i.e., China and the United Kingdom). Overall, our study aims to contribute to research on self-control and delegation from three perspectives. First, we join Lanaj and colleagues (2014) to expand the domain of organizational research pertaining to the consequences of momentary ego depletion by focusing on how before-work ego depletion affects leader's daily work progress. Second and more importantly, unlike existing research that almost exclusively considers self-control as a personal capacity and an intra-individual process, our focus on delegation as an antidote to ego

depletion highlights the possibility of important social others in facilitating self-regulation towards goal progress and goal achievement (Fitzsimons & Finkel, 2010). Third, our study also contributes to research on delegation by taking a within-individual approach to show its daily fluctuation, and providing evidence for the positive consequences of daily delegation on leader.

Insert Figure 1 about here

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

The negative consequences of ego depletion

Self-control is the process of volitionally overriding one's spontaneous desire and altering their responses to behave in accordance to ideals, morals, and expectations, and to facilitate long-term goal pursuit (Baumeister et al., 2007). At work, leader exerts self-control to bring their full selves to work so as to meet performance goals and organizational expectations. Self-control of attention is particularly important for goal pursuit because attention is required to identify a suitable goal, block out competing goals and distractions, and sustain goal-directed efforts (Johnson et al., 2018). Effective attention allocation is even more critical for leader because they constantly juggle multiple tasks, goals, and interruptions in their daily work (Schmidt & DeShon, 2007; Yukl, 2013). For leader to perform to their full potential, their attention should be directed to one performance episode at a time (Beal et al., 2005). However, we argue that leaders are less concentrated and attentive at work when they start their workday and experience ego depletion – a state when people lack sufficient willpower or motivation to exert self-control and engage in volitional actions (Barnes et al., 2011; Baumeister et al., 1998; Muraven & Slessareva, 2003). One potential explanation is that leaders are less motivated to exert self-control to direct their full attention to the task at hand when they are ego-depleted.

Our reasoning is based on the integrated self-control theory and its application (Kotabe & Hofmann, 2015, 2016). Most relevant to our arguments is the interplay among desire, higher order goal, and self-control motivation. This theory posits that individual's decision to exert self-control is driven by the conflict between a desire and a higher order goal. Desire is a psychological force directing a person toward reward-related stimuli that could immediately bring pleasure or relief. Higher order goal is a cognitive construct associated with a positive and meaningful end state that motivates psychological and behavioral responses. While desire pushes individuals to pursue the "want to" goal, higher order goal pushes them to pursue the "have to" goal. When a desire becomes a temptation, the pursuit of high-order goal requires one's self-control to override desire with psychological states and action tendencies compatible with the higher-order goal.

Building on this model, Kotabe and Hofmann (2016) argue that the experience of ego depletion reinforces the strength of desire and weakens the strength of the higher-order goal, thus, reduces motivation to control. The relationship between ego depletion and increased strength of desire is supported by neuroscience research, which shows that individuals who are ego-depleted demonstrate stronger neural responses in brain area associated with desirable stimuli and reward value (Wagner et al., 2013). Organizational research also shows that ego depletion is highly and positively correlated with need for recovery (i.e., a desire to be relieved from demands; Diestel et al., 2015; Sonnentag & Zijlstra, 2006). When leaders start their work day with a higher level of ego depletion, they may perceive a greater desire to be relieved from the intensive work schedule and allow their mind to wander, despite higher order goals of completing specific tasks or more generally being an accountable and effective leader. Therefore, depleted leaders' attentional focus is drawn toward the need for recovery (i.e., desire).

In addition, ego depletion results in motivated reasoning that decreases high-order goal strength (Kotabe & Hofmann, 2016). When people engage in motivated reasoning, they are sensitive to thoughts that support a desired conclusion (Kunda, 1990). That is, depleted individuals are likely to justify and rationalize their desire enactment by instilling a sense of deservingness that disfavors the pursuit of higher-order goal or downplay the impact of not controlling themselves on the higher-order goal. Depleted leader may allow their minds to wander at work thinking that they deserve a break because they have been working hard and those work on the desk can wait. Therefore, depleted leader's attentional focus is drawn away from task and work goals due to motivated reasoning.

Hypothesis 1a: At the within-individual level, leader before-work ego depletion is negatively related to attention at work.

Attention is an important cognitive resource for (multiple-) goal pursuit (Kanfer & Ackerman, 1989; Vancouver et al., 2010), and it influences goal pursuit via three mechanisms (Ocasio, 2011). Executive attention is needed to identity priorities of goals, evaluate potential conflicts among goals, analyze performance-goal discrepancy, and develop plans for goal pursuit. When one is committed to a focal goal pursuit, selective attention is activated to inhibit the accessibility of competing goals (Shah et al., 2002). To successfully achieve a goal, attention should also be sustained on the focal goal. Persistent goal pursuit requires individuals to stay alert and attentive, and continue to devote effort regardless of difficulties and obstacles. Therefore, for leaders who deal with multiple goals in their daily work, attention is prerequisite a higher level of daily work goal progress. When attention is drawn to non-work related goals or activities because leaders are ego-depleted at the start of the workday, they will be less efficient in attaining their daily work goals.

Hypothesis 1b: At the within-individual level, leader attention at work is positively related to perceived work goal progress.

Hypothesis 1c: At the within-individual level, there is a negative indirect effect of leader before-work ego depletion on perceived work goal progress through decreased attention at work.

The moderating effect of delegation

Since ego depletion at the beginning of the day can hinder leader's work goal progress, it is necessary to consider factors that could reduce the negative consequences brought by ego depletion and help leaders remain attentive at work and ensure work progress. While avoiding to exert self-control and taking micro-breaks, both of which entail a certain level of psychological detachment from work, could help individuals recover from a state of resource depletion (Bennett et al., 2020; Kim et al., 2017), leader might not have the luxury of detaching from work due to the continued work demands that accompanied the managerial roles (Yukl, 2013). However, we contend that leader occupies a position of power which allows them to manage and craft their job to accommodate needs and desire and cope with the state of ego depletion. One potential action to cushion the negative effect of ego depletion is to delegate power and authorities to subordinates, a strategy that is widely adopted by leaders to manage their time and work demands (Feldman & Brett, 1983; Yukl & Fu, 1999).

We hypothesize daily delegation to buffer the negative effect of before-work ego depletion on attention at work for two reasons. First, delegating tasks and authorities to subordinates is a strategic way for leaders to better utilize their limited resources and reduce workloads and extra demands for self-control created by potential distractions and interruptions. Examples of unexpected interruptions include a subordinate asking for authorization to

implement a decision and a client calling in for additional information. Unexpected interruptions compel leaders to switch their attention away from the primary task, disrupt their train of thoughts, and require extra control efforts to reorient their attention when the primary task is resumed (Leroy et al., 2020). Switching attention between tasks is challenging because the interrupting task might engender attention residue that will linger to inhibit individual from staying focused on the subsequent task (Newton et al., 2020). Constant interruptions, which constitute a typical managerial workday, pose additional demands on leaders to regulate their attention and exacerbate the negative impact of before-work ego depletion on attention at work. Through delegating, leaders keep tasks and decisions that are central to the managerial roles, reduce potential interruptions, and prevent the negative effect from escalating (Yukl & Fu, 1999).

Second, the enactment of delegating behavior enhances leader's self-control motivation. At a first glance, delegation is a process of relinquishing power and decision-making authority to subordinate, and might reduce leader's sense of power and control. However, leaders who delegate more often perceive a heightened psychological sense of power and are considered more agentic (Akinola et al., 2018; Haselhuhn et al., 2017). The act of delegating reminds leader of the managerial role they occupy and make them more salient to the power they have. The sense of power has been identified as an important stimulus for individuals' self-control motivation because it activates the behavioral approach system and thus action tendency (DeWall et al., 2011; Galinsky et al., 2003; Welsh et al., 2018). In a series of studies, DeWall and colleagues found that depleted participants who were assigned to a manager role in general performed better their depleted counterparts who were assigned to subordinate role in a subsequent task that required self-regulation, and demonstrated similar levels of self-regulatory

performance as those managerial counterparts who were not depleted. Therefore, delegating behavior should counteract the negative consequences of ego depletion because it helps leader to regain a sense of power and perceive higher self-control motivation.

Taken together, we argue that delegation buffers the negative relationship between before-work ego depletion because it helps leader to prevent additional demands placed on their self-control and enhances their motivation to control. It logically follows that when leader delegates more to subordinate, the negative downstream consequence on perceived work goal progress via reduced attention will be weakened.

Hypothesis 2a: At the within-individual level, leader delegation buffers the negative relationship between before-work ego depletion and attention at work, such that this negative relationship is weaker on days when a leader delegates more to subordinates, compared to days when s/he delegates less.

Hypothesis 2b: At the within-individual level, leader delegation buffers the negative indirect effect of leader before-work ego depletion on perceived work goal progress through decreased attention at work, such that this negative indirect effect is weaker on days when a leader delegates more to subordinates, compared to days when s/he delegates less to subordinates.

STUDY 1

Participants

We recruited participants by distributing invitations to part-time graduate students in hotel management at a university in Macau and their managerial colleagues who worked in various hotels in Macau. A total of 93 leaders signed up to participate and registered with their

phone numbers. Two of our authors then contacted these leaders individually to further introduce the procedure of this study in detail. Participants were reminded to use the last five digits of their phone numbers as their user codes in the online surveys. Among these registered participants, seven did not complete the first phase of the study – a baseline survey in which we measured their demographic information, and two did not proceed to the second phase of the study, which involved three online surveys per day for five workdays. Hence, 84 leaders completed the baseline survey and completed at least one daily survey. On average, these participants were 36.6 years old (*SD* = 7.00) and 63% of them were male. They had been employed in their current hotels for an average of 5.5 years (*SD* = 4.11), and they worked in a variety of departments, including engineering department (54%), operational departments (e.g., food and beverage and front desk, 27%), human resources department (10%), sales and marketing department (5%), and other departments (e.g., finance and accounting and quality assurance, 5%).

Procedure

As introduced above, this study consisted of two phases. In the first phase, participants completed an online survey in which we measured their demographic information. In the second phase, we measured all the study variables in the daily surveys. The daily surveys consisted of a before-work survey, a noon survey, and an end-of-work survey. For a consecutive of five workdays, we sent out the before-work survey at 8 a.m. and measured participants' ego depletion before they started to work. The noon survey was sent out at 1 p.m. to measure participants' delegation behavior in the morning. The last daily survey was the end-of-work survey, which was sent out at 6 p.m., and captured participants' attention at work and perceived work goal progress that afternoon. For each survey, participants were allowed to access and complete the online surveys within 2 hours upon their receipt of the survey links. In total, we received 351

before-work surveys (out of 420 possible surveys, response rate = 83.6%), 360 noon surveys (response rate = 85.7%), and 362 end-of-work surveys (response rate = 86.2%). Among these cases, we were able to completely match 322 daily surveys from 80 participants. That is, 4 participants who proceeded to the daily surveys did not complete all three daily surveys in a single day. Among these 80 participants, 8 of them only completed one matched day of surveys, resulting in zero within-individual variance, and thus, were not included in our final sample. Therefore, our final sample consists of 314 matched daily surveys from 72 leaders (average matched day of surveys = 4.36 per leader).

Measures

All measures used in this study were translated from English to Chinese following the translation-back-translation procedure (Brislin, 1980).

Ego depletion. Leader before-work ego depletion was measured in the before-work survey using a well-validated shortened scale of ego depletion (Lanaj et al., 2014; Lanaj, Johnson, & Wang, 2016). We asked participants to what extent each statement represented how they felt at that moment on a five-point Likert scale (1 = "very slightly or not at all"; 5 = "extremely"). One sample item is "Right now, I feel like my willpower is gone." The average internal consistency reliability across days is .94.

Delegation. We measured leaders' delegation behaviors using five items from the delegation subscale in the Managerial Practices Survey developed by Yukl and Lespinger (1990) . Participants reported how often they engaged in each of the delegation behavior in the morning (1 = "never"; 5 = "always"). An example is "This morning, I asked a subordinate to take primary responsibility for planning a major activity or project for the work unit." The average internal consistency reliability was .89.

Attention. We measured participants' attention at work using one item in the end-of-work survey. Participants were asked to indicate to what extent they were alert at work that afternoon (1 = "very slightly or not at all"; 5 = "extremely").

Perceived work goal progress. Participants' perceived work goal progress was measured in the end-of-work survey using a six-item measure that was validated in a previous study adopting a similar design (Koopman et al., 2016). One sample item is "This afternoon, I made good progress on my work goals." The average internal consistency reliability was .89.

Analytical Strategy

In this study, because the day-level data were nested within individuals, we used Mplus 7 (Muthén & Muthén, 1998-2015) to conduct path analysis in the multilevel structural equation modeling framework (Preacher et al., 2010). By using this framework, the total variance of each variable is partitioned into a within-individual component and a between-individual component. We estimated two models to test our hypotheses. In the first model, we tested a mediation model using a random intercept-random slope model, in which we modeled before-work ego depletion as the independent variable, attention as the mediator, and perceived work goal progress as the dependent variable. To illustrate the effect size, we followed the procedure suggested by Hofmann and colleagues (2000) to estimate the amount of within-individual variance in the outcome variables explained by their respective predictors by computing pseudo-R^2 values. To estimate the indirect effects, a parametric bootstrapping approach with a Monte Carlo simulation with 10,000 replications was used to generate the confidence intervals around the estimated effects (Preacher et al., 2010). An indirect effect is significantly different from zero when the 95% CI does not include zero. In the second model, we added the moderating effect of delegation to the first model. Because delegation is a level-1 moderator, we created the product

term by group-mean centering the main variables (i.e., before-work ego depletion and delegation) and multiplying the mean-centered scores of the respective variables, and modelled the moderating effect with a fixed slope (Liu et al., 2015). To understand the pattern of the moderating effect, we used the tool developed by Preacher and colleagues (2006) to conduct simple slope analysis.

Results

Table 1 presents the means, standard deviations, percentages of within-individual variance, and correlations among four variables in Study 1. The results show that all of them had substantial within-individual variance (before-work ego depletion, 38%; delegation, 39%; attention, 45%; perceived work goal progress, 55%). In addition, at the within-individual level, before-work ego depletion is negatively related to both attention (r = -.23, p < .01) and perceived work goal progress (r = -.17, p < .05), providing preliminary support to our hypotheses.

Insert Table 1 about here

Table 2 shows the results of the mediation and moderated mediation hypotheses testing. Hypothesis 1a predicts that before-work ego depletion is negatively related to attention at work at the within-individual level. As shown in Table 2, before-work ego depletion was negatively related to attention (γ = -.29, p < .01), supporting Hypothesis 1a. This model explained 9% of the within-individual variance in attention. Hypothesis 1b states that attention at work is positively related to perceived work goal progress at the within-individual level. We also found support for this hypothesis (γ = .23, p < .01). Overall, this model explained 15% of the within-individual variance in perceived work goal progress. Hypothesis 1c posits a negative indirect effect of before-work ego depletion on perceived work goal progress through reduced attention at work.

Our results showed that this indirect effect was -0.067 (95% CI: -0.125, -0.022). Therefore, Hypothesis 1c was supported.

Insert Table 2 about here

Hypothesis 2a predicts that daily delegating behavior would weaken the negative relationship between before-work ego depletion and attention at work. Results from Table 2 showed that the interaction between before-work ego depletion and delegation significantly predicted attention at work ($\gamma = .47$, $p < .01$). We present the interaction in Figure 2. Results from simple slope analyses showed that, the negative relationship between before-work ego depletion and attention at work was only significant on days when leaders enacted fewer delegating behaviors (i.e. 1 *SD* below the mean; simple slope = -.52, $p < .01$), but not on days when they enacted more delegating behaviors (i.e. 1 *SD* above the mean; simple slope = .01, $p = .92$). Therefore, our Hypothesis 2a received support.

Insert Figure 2 about here

Hypothesis 2b involves a moderated mediation model. We tested whether daily delegating behavior would buffer the indirect relationship between before-work ego depletion and perceived work goal progress through reduced attention at work. We found that on days when leaders enacted more delegating behaviors, the indirect effect was 0.002 (95% CI: -0.053, 0.046), while on days when they enacted fewer delegating behaviors, the indirect effect was -0.121 (95% CI: -0.223, -0.044). These two indirect effects differed significantly from each other (difference = 0.123; 95% CI: 0.031, 0.258). Taken together, leader daily delegating behavior weakened the indirect relationship between before-work ego-delegation and perceived work goal progress via attention, supporting Hypothesis 2b.

STUDY 2

We conducted a second experience sampling study as a constructive replication to establish the generalizability of our research findings in Study 1 with a longer period of examination (i.e., 10 workdays). Research has shown that leaders from a high power distance culture are less likely to delegate responsibilities to subordinates (Offermann & Hellmann, 1997). It is plausible that the resource conservation function of the occasional delegation is more evident among leaders from a high power distance culture as they constantly cling to their authorities and responsibilities and rely more on themselves to accomplish tasks. Therefore, it is critical to test our hypothesized relationships with a more diverse sample of leaders (in contrast to only leaders in the hotel industry in Study 1) from a low power distance culture in order to examine the robustness of our findings and to draw a more definitive conclusion regarding the moderating effect of delegating behavior.

Participants

We recruited leaders in the U.K. from Prolific Academic - a British online research platform, which has been shown to provide higher quality data, compared to Amazon Mechanical Turk (Peer et al., 2017). Among the 100 leaders who signed up for this study, 92 completed the baseline survey in which we measured their demographic information and proceeded to the daily surveys. These leaders were employed in a variety of positions within their organizations, such as finance director, head of operations, department manager, and project manager. They were on average 37.9 years old (*SD* = 9.40), nearly half of them were male (46%) and mostly Caucasians (94%). They had been working in the current organization for an average of 7.5 years (*SD* = 5.55) and occupying a leadership position for 3.9 years (*SD* = 3.0). On average, they had 13 subordinates (*SD* = 21).

Procedure

Using a similar experience sampling design adopted in Study 1, participants were invited to participate in a one-time survey before proceeding to the 2-week (i.e., 10 consecutive workdays) daily surveys, which consisted of three surveys per day - a before-work survey, a noon survey, and an end-of-work survey. We sent out (1) the before-work survey at 7 a.m. to measure before-work ego depletion, (2) the noon survey at 12 p.m. to measure participants' delegating behavior and attention at work in the morning, and (3) the end-of-work survey at 5 p.m. to measure their perceived work goal progress that afternoon. Participants were given a three-hour window to access and complete the online surveys. In total, we received 838 before-work surveys (out of 920 possible surveys, response rate = 91.1%), 840 noon surveys (response rate = 91.3%), and 862 end-of-work surveys (response rate = 93.7%). Among these, 5 participants did not complete all three surveys in any single day, resulting in our final sample of 785 matched daily surveys from 87 leaders (average matched day of surveys = 9.02 per leader).

Measures

We assessed *before-work ego depletion*, in the before-work survey, using the same items and response scale as in Study 1 (average α = .95). *Delegating behavior* was measured in the noon survey using the same items as in Study 1 (average α = .81), but with a frequency scale (1 = "never"; 5 = "four or more times"). The use of a frequency scale is consistent with more recent studies on leadership behavior using an experience sampling design (Foulk et al., 2018; Lanaj, Johnson, et al., 2016a), and provides us more information regarding the exact frequency of a leader enacting a certain behavior during a specific period of time. We measured *attention at work* using two items in the noon survey (Scott & Judge, 2006), by asking participants to evaluate to what extent they were "alert" and "attentive" at work that morning (1 = "very slightly

or not at all"; 5 = "extremely"). The average coefficient alpha was .90. Perceived work goal progress was measured in the end-of-work survey using the same items and response scale as in Study 1 (average α = .94).

Results

We followed the same procedure as in Study 1 to test our hypotheses. Table 3 presents the descriptive statistics. All of our study variables had substantial within-individual variance (ranging from 47% to 71%). Table 4 presents the results of the hypotheses testing. Paralleling the results in Study 1, before-work ego depletion was negatively related to attention at work (γ = -.25, p < .01), supporting Hypothesis 1a. This model explained 10% of the within-individual variance in attention. In addition, attention at work was positively related to perceived work goal progress (γ = .26, p < .01), with 9% of the within-individual variance in perceived work goal progress being explained by this model. Thus, Hypothesis 1b was supported. Based on the results from the Monte Carlo simulation, we also found support for Hypothesis 1c, which predicts a negative indirect effect of before-work ego depletion on perceived work goal progress through reduced attention at work (indirect effect = -0.064; 95% CI: -0.103, -0.033).

Insert Tables 3 & 4 about here

We also replicated the finding of Hypothesis 2a, which posits that daily delegating behavior would weaken the negative relationship between before-work ego depletion and attention at work. Results from Table 4 showed that the interaction between before-work ego depletion and delegation significantly predicted attention at work (γ = .11, p < .05). The interaction is plotted in Figure 3. Results from simple slope analyses showed that, the negative relationship between before-work ego depletion and attention at work was weaker on days when

leaders enacted more delegating behavior (simple slope = -.18, $p < .05$), compared to days when they enacted fewer delegating behavior (simple slope = -.33, $p < .01$),

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Insert Figure 3 about here

Finally, we again found support for our overall moderated mediation model as proposed in Hypothesis 2b based on the results from Monte Carlo simulation. We found that on days when leaders enacted more delegating behaviors, the indirect effect was -0.047 (95% CI: -0.085, -0.016), while on days when they enacted fewer delegating behaviors, the indirect effect was -0.083 (95% CI: -0.132, -0.042). These two indirect effects differed significantly from each other (difference = 0.037; 95% CI: 0.001, 0.077). Taken together, leader daily delegating behavior weakened the indirect relationship between before-work ego-delegation and perceived work goal progress via reduced attention at work.

GENERAL DISCUSSION

In this study, we examined adverse effects of before-work ego depletion among leaders and identified one leadership behavior that could counteract the negative effects. Using two experience sampling studies with managerial participants from two countries (i.e., China and United Kingdom), we found that on days when leaders started their workdays with higher ego depletion, they were less attentive at work, and perceive lower work goal progress at the end of the workday. Daily delegating behavior mitigates these negative effects, such that on days when leaders delegated more, their attention at work and work goal progress were affected to a less extent, compared to days when they delegated less.

Theoretical Contribution

Our research contributes to research on ego depletion as well as delegation from three perspectives. First, our examination of attention and work goal progress as the outcomes of ego depletion extends and complements exisiting leadership research that has largely focused on abusive supervision as the consequence (Barnes et al., 2015; Courtright et al., 2015; Lin et al., 2016). Lab studies have unequivocally shown the adverse effect of ego depletion on performance on an immediate subsequent task (Baumeister et al., 2007), yet the temporality of its negative impacts on leader's daily work performance is less clear. Therefore, we followed Lanaj and colleagues (2014) to expand the criterion domain of ego depletion in leadership research. Specifically, we found that before-work ego depletion hindered leader's work goal progress via reduced attention at work. These findings further shed light on factors beyond typical work demands and behaviors that impact individual's work goal progress (Koopman et al., 2016; Rosen et al., 2019) and emphasize the importance of examining how start-of-workday experiences affect employees' daily work performance (McClean et al., 2020; Rothbard & Wilk, 2011).

Second, our research findings suggest an actionable strategy for leaders to protect themselves from the adverse effects of before-work ego depletion. Existing organizational research has identified contextual factors that could buffer the deleterious impact of ego depletion, such as job control or organizational sanctions for aggressive behavior (e.g., Courtright et al., 2015; Lanaj et al., 2014). Yet enhancing such perceptions requires structural or policy changes from senior management, and is often beyond the control of lower-level managers. The power to delegate, however, resides with managerial positions, and leaders themselves have the discretion to delegate or not to. The finding that daily delegation consistently buffered the negative influence of before-work ego depletion and attention at work

across two samples of leaders from different cultures suggests that delegation is a common practice that can be adopted by leaders to effectively manage the aftereffects of ego depletion.

With the examination of daily delegation as a strategy for leaders to cope with ego depletion and manage their self-regulation, we hope to bring attention to organizational research on self-control a new perspective of viewing self-regulation in a shared self-regulatory system at work. Our choice of delegation as the moderator was inspired by Fitzsimons and Finkel's (2011) notion of self-regulatory outsourcing. They reasoned that a shared self-regulatory system is developed between partners. Therefore, when individuals think about how partners could help with self-control in a goal pursuit, they would reduce self-control in striving for that goal, and conserve resources for other goal pursuits. Applying this idea to the leadership context, we suggest future organizational research should incorporate the idea of a shared self-regulatory system and examine how interpersonal influences hurt or facilitate leader's self-control.

Third, our studies advance leadership research by examining the daily fluctuation of delegation and its positive influence. Leadership research in the past few years has demonstrated the positive and negative consequences of daily leadership behaviors on leaders themselves (e.g., Lanaj, Johnson, et al., 2016b; Lin et al., 2019; Qin et al., 2018). Our research joins this line of research and found that delegating behavior fluctuated substantially within person from day to day (i.e., 39% and 59%) and it benefited leaders by weakening the negative effects of ego depletion on attention at work, and subsequently work goal progress. Thus, our research advances the understanding of the consequences of delegation, in terms of its moderating effect, beyond those on subordinates (Chen & Aryee, 2007; Leana, 1986). We should note that daily delegation did not significantly predict attention nor work goal progress. Future research can take

a balance perspective to provide a more holistic understanding of the consequences of delegation on leaders.

Limitations and Future Research

Our two studies with data collected from leaders in different cultures provides robust support for our theoretical model. However, these two studies have a number of limitations that should be noted. First, common method variance might be a concern because our findings are based on self-reported data (Podsakoff et al., 2003). However, our experience sampling design and multilevel analyses reduce potential confounds that are caused by stable dispositional and contextual factors. To further reduce this concern, we measured our variables at multiple points in time. Nevertheless, we encourage future research to collect data from multiple sources or using objective indicators of attention and work goal progress.

Second, we only tested the moderating effect of delegation – a relatively understudied leadership behavior, yet the enactment of other leadership behaviors might similarly enhance leader's sense of power and thus control motivation. For instance, research showed that daily abusive supervision enhances leader's sense of power and contributes to their momentary recovery (Ju et al., 2019; Qin et al., 2018). Therefore, daily abusive supervision might buffer the negative impacts of ego depletion on leaders.

Another relevant leadership behavior is empowering leadership, which also fluctuates day to day (Schilpzand et al., 2018). Although empowering leadership and delegation share conceptual overlap of transferring power and authorities to subordinates, empowering leadership involves a wider range of behaviors to enhance subordinates' perceptions of meaningfulness, competence, self-efficacy, and impact (Ahearne et al., 2005). Although empowering leadership might help leader to regain control motivation, helping subordinates to understand the meaning

of their work and improve their confidence may play extra demands on leader. Thus, we are uncertain whether empowering leadership could play the same role as delegation in our study. We encourage future research to continue to identify and examine leadership behaviors that could counteract the negative impacts of ego depletion.

Practical Implications

Managerial work is demanding and depleting. Leaders often work around the clock and start their workday already not yet recharged. First, given the negative downstream consequences of before-work ego depletion we found, organizations are encouraged to take actions to help leaders reduce before-work ego depletion or recover and regain self-control motivation at work. For instance, organizations should encourage a no late-night email rule because working on smart phones before bedtime leads to ego depletion the next morning (Lanaj et al., 2014). Leaders themselves might practice self-reflection at the start of their workday to eliminate the experience of ego depletion (Lanaj et al., 2019). At the workplace, organizations can offer sleeping pods, gym, and game room and encourage employees to take short breaks and socialize with coworkers during work hours. These activities could help employees recover from ego depletion and stay attentive at work (Hunter & Wu, 2016; Kim et al., 2017).

Second, our results show the benefits of delegation on leaders, such that it effectively weakens the negative influences of ego depletion. However, many leaders hesitate to delegate due to the concerns of power deprivation and incompetent subordinates (Yukl, 2013; Yukl & Fu, 1999). The worry of delegating work is more salient among female leaders, who often feel guilty and fear of backlash after delegating (Akinola et al., 2018). Therefore, organizations may organize workshops to help leaders develop an unbiased understanding of delegation, highlight its potential benefits, and coach them how to delegate more effectively.

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Table 1

Study 1: Means, Standard Deviations (SD), Percentages of Within-person Variance, and Correlations among Study Variables

	Variables	M	Between-person SD	Within-person SD	Within-person variance	1	2	3	4
1	Before-work ego depletion	2.22	0.75	0.59	38%	**(0.94)**	0.09	-0.46**	-0.51**
2	Delegation	2.99	0.71	0.57	39%	-0.04	**(0.89)**	0.15	0.23
3	Attention	3.10	0.73	0.66	45%	-0.23**	0.06	**-**	0.55**
4	Perceived work goal progress	3.56	0.45	0.50	55%	-0.17*	0.08	0.30**	**(0.89)**

Notes: The correlations above the diagonal represent between-person correlations (computed using individuals' aggregated scores; $N = 72$). The correlations below the diagonal represent within-person correlations ($N = 314$). Reliabilities were averaged across days and reported on the diagonal in bold.

*$p < .05$, **$p < .01$ (two-tailed)

Table 2

Study 1: Results of Mediation Test and Moderated Mediation Test

	Mediation Test			Moderated Mediation Test		
	b	s.e.	t	b	s.e.	t
Predicting attention						
Before-work ego depletion	-0.29**	0.09	-3.19	-0.26**	0.07	-3.60
Delegation				0.06	0.09	0.61
Before-work ego delegation × Delegation				0.47**	0.14	3.33
Predicting perceived work goal progress						
Before-work ego depletion	-0.09	0.06	-1.46	-0.09	0.06	-1.43
Delegation				0.07	0.06	1.20
Before-work ego delegation × Delegation				0.17	0.13	1.29
Attention	0.23**	0.05	4.40	0.23**	0.06	3.68

Note. $N = 314$, s.e. = standard error;

*$p < .05$, **$p < .01$ (two-tailed)

Table 3

Study 2: Means, Standard Deviations (SD), Percentages of Within-person Variance, and Correlations among Study Variables

	Variables	M	Between-person SD	Within-person SD	Within-person variance	1	2	3	4
1	Before-work ego depletion	2.13	0.74	0.70	47%	**(0.95)**	-0.10	-0.45**	-0.41**
2	Delegation	1.92	0.54	0.65	59%	-0.04	**(0.81)**	0.26*	-0.02
3	Attention	3.71	0.58	0.68	58%	-0.25**	0.05	**(0.90)**	0.42**
4	Perceived work goal progress	2.19	0.48	0.75	71%	-0.11*	0.07	0.21**	**(0.94)**

Notes: The correlations above the diagonal represent between-person correlations (computed using individuals' aggregated scores; $N = 87$). The correlations below the diagonal represent within-person correlations ($N = 785$). Reliabilities were averaged across days and reported on the diagonal in bold.

*$p < .05$, **$p < .01$ (two-tailed)

Table 4

Study 2: Results of Mediation Test and Moderated Mediation Test

	Mediation Test			Moderated Mediation Test		
	b	s.e.	t	b	s.e.	t
Predicting attention						
Before-work ego depletion	-0.25**	0.05	-5.30	-0.25**	0.05	-5.27
Delegation				0.05	0.04	1.44
Before-work ego delegation × Delegation				0.11*	0.05	2.04
Predicting perceived work goal progress						
Before-work ego depletion	-0.08	0.04	-1.75	-0.07	0.04	-1.57
Delegation				0.06	0.04	1.44
Before-work ego delegation × Delegation				-0.07	0.07	-0.94
Attention	0.26**	0.06	4.65	0.26**	0.06	4.61

Note. $N = 785$, s.e. = standard error;

*$p < .05$, **$p < .01$ (two-tailed)

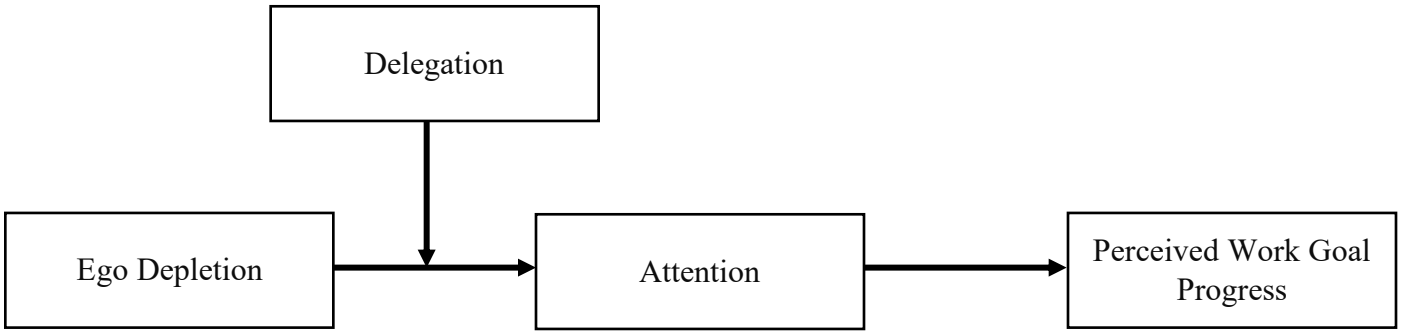

Figure 1 Hypothesized Model

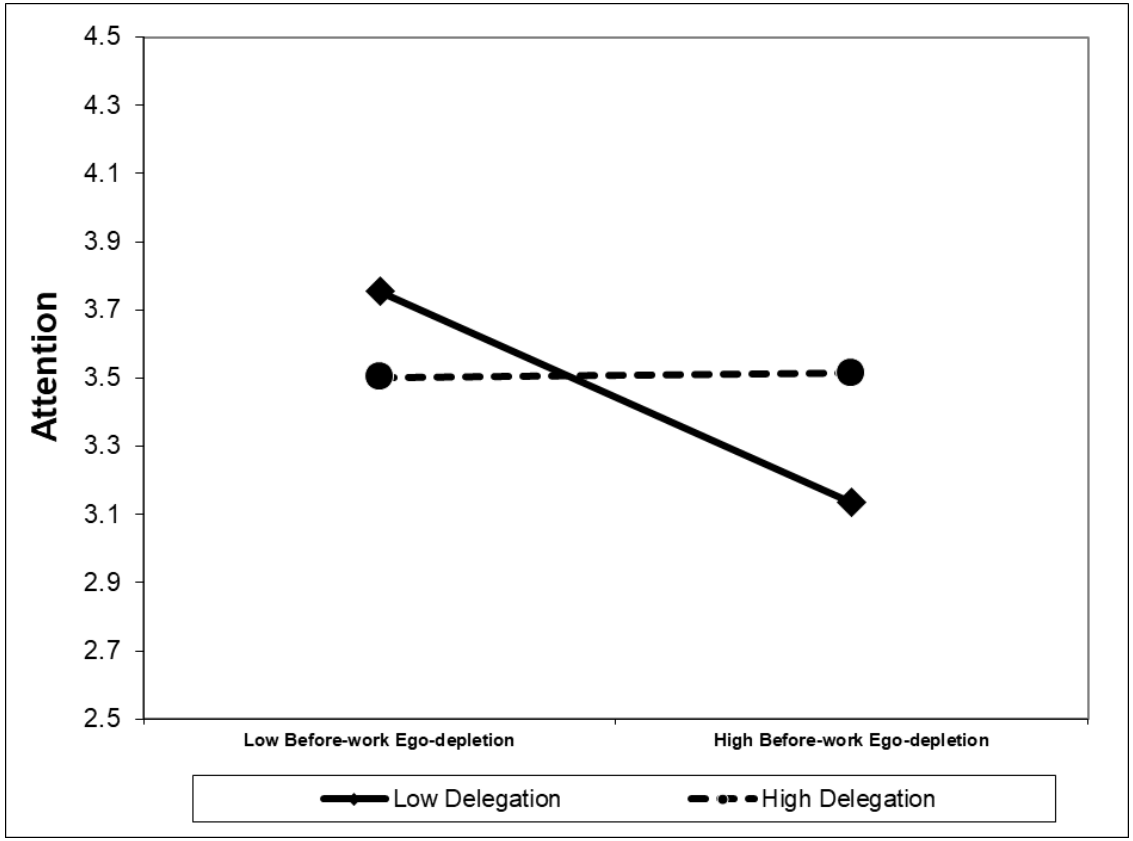

Figure 2 Interaction between Before-work Ego depletion and Delegation on Attention (Study 1)

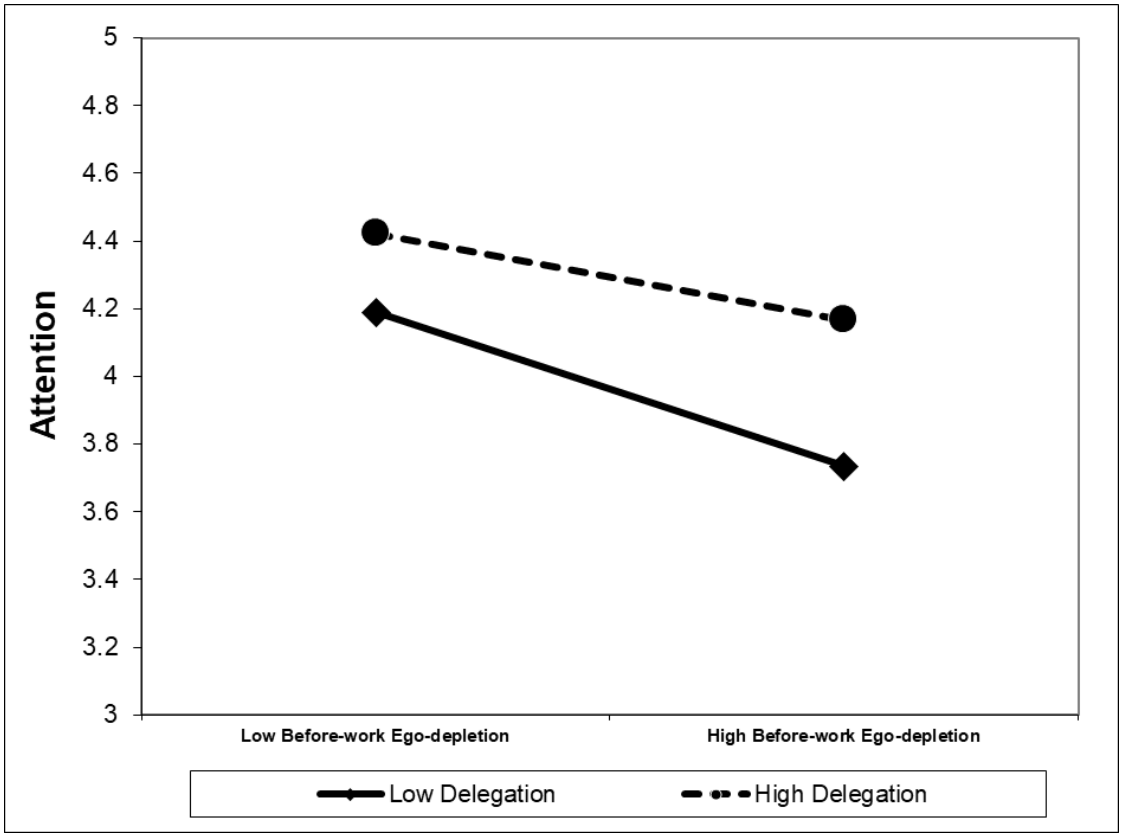

Figure 3 Interaction between Before-work Ego depletion and Delegation on Attention (Study 2)