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THE IMPACT OF HYBRID WORK ARRANGEMENT SWITCHING INTENSITY ON DAILY WELL-BEING AND WORK OUTCOMES: THE MODERATING ROLE OF WORK CHARACTERISTICS

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THE IMPACT OF HYBRID WORK ARRANGEMENT SWITCHING INTENSITY ON DAILY WELL-BEING AND WORK OUTCOMES: THE MODERATING ROLE OF WORK CHARACTERISTICS

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Abstract

As hybrid work becomes more common, employees frequently switch between working from home (WFH) and at the office (WATO). This study introduces a novel concept known as Hybrid Work Arrangement Switching Intensity (HWASI), which is the frequency of these transitions. Drawing on Cognitive Load Theory as well as Job Demands-Resources theory, the current study posited that such switching depletes employee energy and thus increases exhaustion and reduces vitality, which in turn predict next-day outcomes such as performance, job satisfaction, and emotional states. Using a 10-day experience sampling methodology (ESM), this study empirically examined associations between HWASI, daily energy levels, and work outcomes. We also investigated whether work characteristics (e.g., task complexity) moderated the association between HWASI and energy levels. Findings indicate that HWASI was not a reliable indicator for energy levels or next-day outcomes although it did have an indirect effect on job satisfaction through exhaustion. Furthermore, post hoc analyses indicated that task switching and task complexity were positively related to exhaustion, while autonomy over work location was negatively related to exhaustion. Implications and future directions based on these findings are discussed.

The Impact of Hybrid Work Arrangement Switching Intensity on Daily Well-being and Work Outcomes: The Moderating Role of Work Characteristics

Hybrid work arrangements where employees are expected or choose to transition between working from home (WFH) and Working at the Office (WATO) have become a dominant mode of work post-COVID-19 pandemic (Gajendran et al., 2024). When observing hybrid work patterns, Heimgartner and Axhausen (2024) found that having employees spend two days WFH and three days WATO (or vice versa) each week has become an increasingly common policy within organizations. This type of hybrid working arrangement opens the possibility for four total switches between WFH and WATO within a single week. There are a variety of other hybrid work arrangements that would involve larger numbers of switches. Given the differences in WFH and WATO routines, hybrid employees need to constantly reorient their focus, communication style, and work expectations on a daily basis, which could differentially influence well-being and work outcomes. Windeler et al. (2017) found that part-time working from home reduced exhaustion because there were fewer social interactions. Although switching environments may occur both within-day (i.e., switching midday to a new location) and/or between days (i.e., one day at home the next at the office), within-day switching may require a unique subsample of hybrid workers to support reliable analysis. Thus, for the purpose of the current study, Hybrid Work Arrangement Switching Intensity (HWASI) encompasses the frequency with which employees switch work location *between* days (home/office).

Previous research has primarily focused on static comparisons between remote and in-office work or has investigated hybrid work arrangements in a cross-sectional manner (Gajendran et al., 2024). However, the dynamic nature of work routine switching and its day-to-day implications for well-being and performance remains underexplored. As organizations and employees move towards more hybrid work and away from full WFH/WATO, understanding how HWASI influences outcomes like exhaustion, vitality, health, and performance is critical for designing sustainable hybrid work models. This study aimed to fill this gap by examining how the intensity of switching affects daily energy levels and next-day work outcomes, and whether certain contextual factors moderate these effects.

The current research draws on cognitive load theory (Sweller, 1988; Sweller, 2011) and Job Demands Resource Theory (JDR) to explain how frequent and challenging switching could impose multiple resource costs on employees. According to cognitive load theory, humans have a limited capacity to process novel information in real-time. When employees are required to switch working locations, they must mentally reorient to the new environment and routine. This reorientation could be adapting to differing technologies, social expectations, or adjusting coordination strategies—all of which are likely to consume cognitive and potentially socioemotional resources. For example, an employee working from a quiet home office on Monday must adjust to an open-plan office on Tuesday. In other words, there is a need for mental reorientation that involves the anticipation of in-person social interactions that previously were unnecessary for days working from home. Evidence supports that these types of social job demands can intensify cognitive activation, depleting energy stores, which in turn elevate work-related exhaustion. (Coté, 2005; Brotheridge & Grandey, 2002). Sweller (1988) emphasized that when cognitive demands exceed available working memory capacity, learning and performance suffer. Thus, as the extraneous load accumulates across frequent daily switches, individuals are left with fewer cognitive resources for managing tasks effectively or recuperating, potentially leading to decreased energy levels and subsequent decreases in daily performance and well-being. However, switching could also potentially reduce load if the new environment has fewer distractions, beneficial social interactions and stimulate innovating thinking.

The current study makes several theoretical and practical contributions to the literature. Theoretically, this study extends current knowledge by introducing and testing the novel concept of Hybrid Work Arrangement Switching Intensity (HWASI) as a dynamic daily stressor that may decrease employee energy levels, leading to subsequent declines in related outcomes. While past research has examined the static differences between remote and in-office work, the cognitive and emotional toll or benefits of switching between these related but distinct contexts remains largely unexamined. Thus, the current research advances the theoretical foundation of Cognitive Load Theory by extending its application beyond brief, routine instances of task-switching as extraneous cognitive load to encompass more prolonged and cognitively demanding transitions between WFH and WATO. In addition to Cognitive Load Theory, HWASI within the framework of Job Demands-Resources (JD-R) theory (Demerouti et al., 2001) can be considered as a novel type of job demand, expanding upon this theoretical model as well. That is, HWASI introduces a unique form of job demand that extends beyond traditional physical or cognitive stressors by imposing location-based switching costs. However, it should be mentioned that within a JD-R framework, it is also plausible that HWASI could function as a resource in some contexts because it may provide employees with more flexibility, greater control, or access to a work environment better suited for their tasks (e.g., a quieter workspace for answering phone calls). See Figure 1 for the full conceptual model.

Practically, by using a daily diary method, this research allows for the real-time assessment of hybrid work and the impacts it has on energy levels, well-being, and performance. Thus, this research can inform workplace policies around hybrid scheduling, by identifying hybrid approaches that promote positive outcomes and avoid negative consequences. Furthermore, by incorporating several novel work context moderators, this research aimed to identify the specific contexts in which switching across workdays is most detrimental. This knowledge will help organizations tailor hybrid arrangements to match employee needs. Finally, this is one of the first studies to examine how hybrid work transitions affect short-term energy, providing a foundation for future interventions aimed at reducing cognitive and emotional overload and promoting sustainable work patterns in hybrid environments.

Switching Intensity & Daily Energy Levels (Exhaustion/Vitality)

Cognitive research has suggested that humans can't perform multiple cognitive tasks simultaneously (i.e., multitasking). Rather, it is suggested that the brain rapidly switches between tasks (i.e., task-switching; Pashler, 1994; Rubinstein, 2001). Therefore, the term multitasking will be replaced with the scientifically supported term, task-switching. This switching process is not seamless and typically incurs resource costs (e.g., executive functioning burden). While task-switching can be viewed as effortful and avoided when possible (Wickens et al., 2015), many employees may not be fully aware of the extent of their task-switching, especially when driven by job demands that necessitate frequent reorientation across tasks (see Kiesel et al., 2010). This lack of awareness or control over task-switching may contribute to the cognitive strain associated with frequent switching. Supporting this notion, past research found causal evidence that higher levels of task-switching significantly increase emotional exhaustion, a core component of energy levels (Pikos, 2017). Similarly, using a three-wave survey, Yang et al. (2023) found that task-switching significantly depleted employees' psychological resources, leading to increased exhaustion. Experience sampling research by Kudesia et al. (2020) further demonstrated that task-switching behavior directly predicted higher levels of mental fatigue across the workday.

Taken together, these findings suggest that switching between tasks, even on a micro level, relates to increased feelings of exhaustion in employees.

Another common form of switching in the modern workplace involves changes in the physical environment or workspace, such as moving to a different room, desk or area of the organization to complete work. Much of the existing knowledge about this type of environment switching stems from the literature on activity-based working (ABW)—a non-territorial work model in which employees do not have assigned desks or seating (Engelen et al., 2019). In practice, this means that employees often work in a different area each time they enter the office. Although there is some research on the impact of such environmental switching on employee exhaustion, findings remain limited and mixed. For example, Hodzic et al. (2021) found that transitioning to ABW increased feelings of exhaustion, particularly under conditions of time pressure. Appel-Meulenbroek et al. (2020) similarly reported that certain aspects of ABW, such as distraction, were associated with higher exhaustion levels, though the study did not directly assess the impact of desk switching due to low observed correlations. In contrast, Seddigh et al. (2014), in a comparison of different office types—including open-plan, cellular, and ABW setups—found no significant differences in reported exhaustion. Ten Brummelhuis et al. (2012) examined New Ways of Working (NWW), a related but distinct construct, and observed both positive and negative effects on exhaustion depending on mediating variables such as communication efficiency and interruptions. Notably, much of the current research conceptualizes the costs of switching environments primarily through the lens of distraction or resource loss, rather than through the lens of cognitive demands inherent to switching itself (Appel-Meulenbroek et al., 2020). As a result, further research is needed to more precisely isolate and understand the cumulative effects of repeated environmental switching on employee energy levels.

Although limited, existing research suggests that micro role transitions are cognitively demanding and contribute to exhaustion or lowered energy levels. Micro role transitions refer to the psychological and/or physical movement between different roles throughout an individual's day and have been proposed to be both cognitively and emotionally taxing (Ashforth et al., 2000). Empirical research supports this claim. For instance, Smit et al. (2016) found that cognitive role transitions (e.g., switching from work to family roles) consumed cognitive resources and led to self-regulatory depletion, a phenomenon closely related to mental fatigue. Similarly, Mistry et al. (2022) found that employees who belonged to more teams experienced more frequent micro role transitions and, consequently, greater cognitive depletion due to increased identity strain. Grotto et al. (2021) further reinforced these findings by demonstrating that frequent transitions between work and nonwork domains impaired employees' inhibitory control resources, contributing to emotional exhaustion. Qualitative research by Davis et al. (2024) similarly showed that sports coaches who frequently shifted between roles (e.g., teaching versus coaching) experienced elevated fatigue and mental exhaustion. While much of the research has focused on transitions across life domains, even transitions strictly within the workplace—such as switching between teams or responsibilities—appear to tax cognitive resources and elevate exhaustion levels. Taken together, these findings suggest that micro role transitions, whether between work and nonwork roles or within the work environment itself, create substantial cognitive demands for employees. In the analogous context of HWASI, where employees may experience continuous shifts between physical environments, the impact of this switching on exhaustion is likely to be particularly pronounced as well. Thus, the following hypotheses are proposed:

RQ1: Does switching work locations (i.e., HWASI frequency) significantly relate to a) daily exhaustion and b) vitality?

Switching Intensity and Next-Day Work Outcomes

Job Performance

Drawing from JD-R Theory (Demerouti et al., 2001), HWASI introduces a novel and potent job demand that has the potential to impact daily task performance of employees. According to this theory, job demands consist of physical, social, psychological, or organizational features of a job that require sustained effort. Typically, this sustained effort is associated with physiological and psychological costs when it exceeds the worker’s capacity or available resources (Bakker & Demerouti, 2007). In the context of HWASI, the frequent transitions demand a need to reorient oneself between distinct work environments (WFH and WATO) in terms of contextual expectations, social norms, and technological interfaces. Each of these transitions disrupts cognitive flow and imposes adjustment costs, which tax finite cognitive resources. Over time, the cumulative reorientations may diminish employee’s capacity to maintain concentration and complete work tasks efficiently and accurately (see Sweller, 1988). Thus, considering increased HWASI as a unique job demand, it is likely to result in depletion of cognitive bandwidth necessary for optimal task performance.

Beyond the energy consequences of switching, past research on short term task switching provides a strong basis for an understanding that frequent cognitive switching can lead to negative distal outcomes, such as performance in the workplace. According to Pashler (2000) switching between cognitive tasks produces persistent performance costs, such as increased error rates. Moreover, Strobach et al. (2011) found a similar switching cost results even after allowing participants to have extensive practice, suggesting that the switching itself rather than inexperience has negative consequences. Relatedly, Adler and Benbunan-Fich (2012) found that frequent self-initiated switching impaired productivity (i.e., task completion rates) and accuracy (i.e. response correctness). The frequency of switching demonstrated a direct negative effect on performance outcomes. Furthermore, Peifer and Zipp (2019) found that multitasking indirectly harmed employees' subjective performance through disruptions to their experience of flow state. When taken together, the research suggests that task-switching imposes a cognitive burden on individuals, limiting employee's ability to perform at full capacity. Therefore, as hybrid workers engage in greater levels of HWASI, there may be a burden on their cognitive load, in turn resulting in worse performance related outcomes.

Job Satisfaction

JD-R provides a theoretical lens to understand the relationship between HWASI and job satisfaction. Past research has demonstrated that unique job demands (e.g., work-life imbalance) negatively predict job satisfaction (Zhang & Duan, 2023). Theoretically, when employees experience high job demands, such as the cognitive and emotional cost of frequent environment switching, positive job attitudes (including job satisfaction) are likely to deteriorate (Bakker & Demerouti, 2013; 2017). HWASI imposes a form of environmental volatility that disrupts employees' sense of routine and environmental control, which are both important components related to job satisfaction (Choper et al., 2021). The unpredictable nature of the WFH and WATO transitions could introduce uncertainty in daily routines, heighten cognitive load, and reduce psychological comfort as a result. Consequently, in line with JD-R, the inability to consistently anticipate daily work context diminishes job satisfaction as employees struggle to find rhythm and stability in their hybrid schedules.

Furthermore, there is some empirical support that frequent switching between work environments may have an impact on next-day outcomes by disrupting fit and daily routine practices. Like with the connections between work environment switching and energy, much of the research on transitioning environments and work outcomes centers around ABW. In their proposed theoretical model, Wohlers and Hertel (2017) suggested that switching between unassigned workplaces within ABW can lead to short term strain, limiting resources, and in turn lead to decreased well-being, motivation, and performance. In slight contrast, Gaudiino et al. (2023) found that switching frequency can lead to both positive and negative outcomes through feelings of a need for space. More specifically, the authors found that negative effects of switching frequency occurred when either task variety or motivation were low, mediated by needs-space fit. Finally, when investigating the consequences of implementing ABW for academics, Toivanen et al. (2023) found that participants reported decreased energy due to new environmental adjustments (e.g., need for setup routines). The same study also found a connection between these changes and declines in job satisfaction and work engagement. Extending these insights, HWASI can also be conceptualized as a within-day form of environmental switching, where frequent daily reorientation to home or office environments taxes employees' ability to establish a sense of spatial and functional stability. This disruption may hinder employees' sense of belonging and comfort in their work environment, ultimately impairing next-day job satisfaction.

State Positive and Negative Affect

State affect consists of two largely independent mood dimensions, positive and negative affect. Positive Affect (PA) is the degree to which a person feels enthusiastic, active, and alert, while Negative Affect (NA) is a general dimension of distress and unpleasurable engagement

(Watson et al., 1988). Affect in the moment is considered state affect, while affect over several weeks or more is considered trait affect. In the present study we treat PA and NA as transient ('state') mood dimensions rather than discrete emotions. State PA and NA are often considered to be direct indicators of subjective employee well-being (Warr 1990; Bakker & Oerlemans, 2011; Tadić et al., 2015). Accordingly, the current study also treats daily state PA (e.g., enthusiasm, energy) and NA (e.g., distress, irritability) as proximal indicators of employees' emotional well-being.

Parallel to its expected effect on job satisfaction, HWASI is likely to erode employees' well-being by disrupting environmental and cognitive stability through the demand for adaptation to the new work settings and expectations. From a JD-R perspective, each switch intensifies emotional demands by forcing employees to recalibrate their affect to match the expectations of the new role or setting (Ashforth et al., 2000; Grotto et al., 2021). There is some preliminary support for this claim with past research finding that continual job-demands similar to repeat transitioning without sufficient recovery time, has been directly linked to decreases in subjective well-being (measured with PANAS; Tadic et al., 2015; Claes et al., 2023). Thus, the accumulation of unmitigated job demands in the form of HWASI could escalate emotional fatigue and impair overall well-being.

In addition to cognitive and environmental demands, switching between different roles needed to operate when WATO and WFH may create emotional exhaustion, leading to declines in next-day work outcomes. Building on the role transition theory from Ashforth et al. (2000), Adler and Castro (2019) proposed that ongoing micro work transitions may contribute to resource depletion, which can negatively impact outcomes such as job satisfaction. This is supported by past research that found after hour home to work transitions in a given day lead to more conflict (Delanoeije et al., 2019). Recent work from Plotnikova et al. (2025) illustrates that even within a single job, when transitions between different roles (e.g., primary to alternate roles) occurred, employees reported effort being required, thereby limiting their cognitive resources needed for performance. However, past research has also found that the appraisal of the transition is important, suggesting when appraisals are viewed as positive, they are linked to increased engagement and less negative emotional reactions (Darouei & Verbruggen (2023). Although, this literature is still limited in terms of transitional costs, and thus more research in this area is still needed.

Taken together, there is a clear negative impact of different types of cognitive and environmental switching on workplace outcomes. Drawing from this task, environmental, and role switching research, it is hypothesized that higher levels of HWASI will lead to worse workplace outcomes. Extending the cognitive depletion framework underlying HWASI, switching intensity is likely to have a meaningful impact on a range of work-related outcomes, such as task performance, job satisfaction, and affect. Although framed primarily as a job demand given the negative framing of past research in this area, there is not enough known about this novel construct; it is feasible that HWASI could act as a resource (e.g., by offering improved flexibility for work tasks) for some individuals as well. Thus, the following research questions are proposed:

RQ2a: How is daily HWASI related to next-day job performance?
RQ2b: How is daily HWASI related to next-day job satisfaction?
RQ2c: How is daily HWASI related to next-day affect?

Daily Energy Levels (Exhaustion/Vitality) & Next-Day Work Outcomes

It is well understood that daily fluctuations in employee energy levels (i.e., exhaustion and vitality) play a critical role in shaping employee’s next-day work outcomes. Exhaustion is a state of depleted psychological and/or physical resources that most often occurs as a result of prolonged demands without appropriate resources or time to recover (Maslach & Jackson, 1981). In comparison, vitality is the experience of having enthusiasm and spirit and is a result of psychological (e.g., autonomy) and somatic factors (e.g., pain; Ryan & Frederick, 1997). Drawing on JD-R theory (Demerouti et al., 2001), daily exhaustion reflects strain from excessive job demands (e.g., repeated switching) while vitality reflects the presence of job resources, both of which are expected to influence next-day work outcomes such as behavior, motivation, and affective well-being.

Job Performance

In a cross-sectional study of employees from a Dutch dairy company van Scheppingen et al. (2015) found that vitality was positively related to short term personal work functioning and also long term ability to perform the job, even after accounting for lifestyle and organizational factors. Moreover, Ferreira et al. (2019) found that emotional exhaustion directly predicted decreased work engagement and increased productivity loss. Similarly, emotional exhaustion predicts lower job performance, particularly when employees perceive that there are high levels of distributive justice in the organization (Janssen et al., 2010). Finally, Chu & Chou (2024) found that emotional exhaustion predicted withdrawal behaviors, such as avoiding effort or involvement in work tasks. Although this relationship between energy and performance is not universal, Tourigny et al. (2012) found no direct relationship between exhaustion and job performance of Chinese nurses. Therefore the following hypotheses are proposed:

H1a: Daily exhaustion will be negatively associated with next-day job performance.
H1b: Daily vitality will be positively associated with next-day job performance.

Job Satisfaction

Past research has also found significant relations between exhaustion and work-related attitudes. This relationship highlights how lower energy levels and less resources can undermine an employee's attachment to their organization. Elci et al. (2018) found that emotional exhaustion was strongly related to job satisfaction and was a significant predictor of higher turnover intention. In addition, Parmar (2021) found that among university faculty, job burnout, which includes exhaustion as a key component, had a negative impact on turnover intention. Finally, Cropanzano et al. (2003) found that employees who were exhausted reported significantly lower organizational commitment, a construct closely related to job satisfaction. Given this, the following hypotheses are proposed:

H2a: Daily exhaustion will be negatively associated with next-day job satisfaction.
H2b: Daily vitality will be positively associated with next-day job satisfaction.

State Positive and Negative Affect

Simbula et al. (2019) found that exhaustion and need for recovery have a reciprocal relationship such that exhaustion leads to feeling a stronger need to recover and having this need is an early sign of future fatigue. The same study also found that those that are exhausted by their job have a harder time managing how they outwardly express their emotions at work. Although not testing causality, Ferreira et al. (2019) found that exhaustion and affect were significantly correlated such that those that had higher emotional exhaustion also demonstrated more negative affect. Similarly, Sonnentag et al. (2010) also didn't directly test the impacts of exhaustion on need for recovery, but found that these two constructs were significantly correlated. With that said, other research has directly tested the impacts of exhaustion on need for recovery or recuperation and found significance (Xanthopoulou et al., 2018). Thus, efforts to manage overwhelming job demands can cause employees to feel deeply drained, which may result in a stronger desire to recover (Kinnunen et al., 2011).

Taken together, prior research demonstrates a clear link between energy levels and a wide range of workplace outcomes. That is, exhaustion has been shown to reduce work performance, job satisfaction, and impair affective well-being. In contrast, vitality has been shown to be associated with greater engagement, performance, and positive attitudes. Thus the following hypotheses are proposed:

H3a: Daily exhaustion will be negatively associated with same-day positive affect.
H3b: Daily vitality will be positively associated with same-day positive affect.
H3c: Daily exhaustion will be positively associated with same-day negative affect.
H3d: Daily vitality will be negatively associated with same-day negative affect.

RQ3: Do daily exhaustion and vitality mediate the association between HWASI and next-day a) job performance, b) job satisfaction, c) positive affect, and d) negative affect?

Work Characteristics as Moderators

While HWASI may directly impact employees' energy levels, the extent to which these fluctuations are experienced may likely depend on some core work characteristics. That is, not all working environments are the same level of taxing and thus employees in those settings may not be as impacted by frequent switching. Specifically, daily task-switching intensity, task complexity, and autonomy over work location may moderate these effects by either compounding or alleviating the cognitive demands of switching.

Task Switching

Research suggests that frequent transitions between tasks can exacerbate the cognitive costs of hybrid work switching. There is a long-standing relationship between task switching and impairments to performance via increased mental load and error rates in cognitive psychology research (Kiesel et al., 2010). More specifically, this type of micro task-switching is associated with emotional exhaustion and resource depletion (Pikos 2017; Yang et al., 2023). Furthermore, Kudesia et al. (2020) found that task-switching was related to increased mental fatigue across an employee’s workday. Theoretically, when taken into account alongside role and environmental shifts that are associated with HWASI, such switching may magnify energy drain.

Task Complexity

In contrast to task switching, it is plausible that high task complexity will buffer the relationship between HWASI and energy levels. Wood (1986) defined task complexity as a degree to which tasks require problem solving, planning, or coordination. Furthermore, these tasks are typically seen as cognitively demanding, but may foster vitality when matched to employee capabilities. That is, past research has argued that jobs ingrained with complex tasks and autonomy can mean that these features can be resources that promote engagement, motivation, and satisfaction, buffering against strain (Parker et al., 2001). Taking a JD-R perspective, this would suggest that task complexity could potentially serve as a job resource, mitigating against the energy loss due to HWASI.

Autonomy over Work Location

An important component to recovery is one’s perceived control over the context because it acts as an external resource. Further, detachment and control (i.e., autonomy over one’s actions) act as key recovery experiences that promote restoration of resources (Sonnentag & Fritz, 2007). Taken in the context of hybrid work, when employees have control to choose where they work each day, they may experience HWASI as less effortful and more manageable. In contrast, when employees are required to shift locations due to managerial or logistical constraints, this may compound the energy cost by taking the control away from the employees and interrupt their personal rhythms needed to conserve resources and energy. Thus, it is possible that autonomy over work location plays a moderating role in how HWASI affects energy levels.

Taken together, these differing work characteristics are anticipated to shape how much employees feel the consequences or benefits of HWASI, in terms of their energy. Thus the following hypotheses are proposed (see *Figure 1* for full model):

RQ4a: Does daily task switching moderate the relationship between HWASI and exhaustion/vitality?
RQ4b: Does daily task complexity moderate the relationship between HWASI and exhaustion/vitality?
RQ4c: Does autonomy over work location moderate the relationship between HWASI and exhaustion/vitality?

Method

Participants

Participants for this study were full-time hybrid employees recruited through Prolific, an online crowdsourcing platform often used for academic research. In tandem with Prolific the Survey Signal app was used to send out daily text messages with the Qualtrics survey link included. To be considered eligible for this study, participants were required to meet the following criteria: be a US citizen, have a regular hybrid work arrangement (i.e., some workdays a week spent working remotely, some days working at the office), work a normal Monday through Friday week, work full time (35+ hours per week), work during regular hours (that is, completing a full shift anytime between 7AM and 7PM), and have a smart phone to complete daily surveys. In total, 167 individuals participated in this study. However, after further analysis, it was determined that 23 individuals switched between work environments zero times during the two week period, and thus they were removed from the final sample. This decision was justified by the failure to meet the original inclusion criteria of having a regular hybrid work arrangement and the criticality of switching between work environments for the research questions at hand. Daily responses (n = 1349) were nested within the final sample of unique individual participants (N = 144). The Male (61.3%) to female (38.7%) distribution was skewed compared toward men compared to national averages, but this is to be expected with this type of data collection. The age of participants ranged from 23 to 63 years old, with the average age of participants being 39.1 years (*SD* = 9.85). It should be noted that a large majority of participants (70.1%) identified as White with the remaining participants (29.9%) identifying as Nonwhite (e.g., Black, Asian, Hispanic, etc.). Furthermore, there was a wide range of education levels reported by participants, but a large portion (80.6%) reported having at least a bachelor's degree, above that of the reported national average education.

Procedure

The methodology for this study was experience sampling method (ESM) across 10 consecutive workdays (Monday-Friday for two weeks). Each day participants received two unique surveys: an after-work survey (distributed between 4:00-7:00pm) and a night survey (distributed between 9-11:59 PM). See the measures section for details on which variables are collected at each time of day. Each daily survey was designed to take no more than 15 minutes to complete, to reduce participant burden and minimize disruption to daily routines. A separate computer-based baseline survey was administered at the start of the study to assess eligibility, demographic characteristics, and stable job characteristics. All procedures were approved by the University of Oklahoma's Institutional Review Board before any data was collected. Participants also provided informed consent prior to beginning the study. Each participant was compensated for their time with the opportunity to earn up to $30: $3 for the baseline survey, $1 per day for 20 daily surveys, and bonuses of $3 and $4 for full completion in weeks 1 and 2, respectively. With Prolific's 33% service fee, the total cost per participant was approximately $40. In the descriptions below, t refers to the focal day's after-work survey, whereas t + 1 refers to the survey completed on the immediately following workday.

Measures

Hybrid Work Arrangement Switching Intensity (HWASI)[1]

Between Day Frequency (after-work, *t*). Switching frequency between days was captured with a single binary daily item (Yes/no) indicating whether participants transitioned between WFH and WATO from the day before. The question asked "Was your working location (i.e., the physical building you worked from) different than it was yesterday? For example, yesterday you worked from home and today you worked from the office OR yesterday you worked from the office and today you worked from home."

Energy Levels

Daily Exhaustion (after-work, *t*). Exhaustion was measured using a 3-item version of the Maslach Burnout Inventory- General Survey (MBI-GS; Schaufeli et al., 1996). Participants rated items such as "Today at work, I felt emotionally drained" on a 7-point scale from 1 (*not at all true*) to 7 (*very true*). Item responses for a given day were averaged to form a composite indicator of daily exhaustion, with higher values reflecting greater exhaustion. This three-item daily version has displayed strong within-person reliability in prior diary studies (Albrecht & Anglim, 2018; Demerouti, Bakker, & Halbesleben, 2015). Exhaustion demonstrated strong internal consistency, average α = .96.

Daily Vitality (after-work, *t*). Vitality was measured using the 5-item Subjective Vitality Scale (Ryan & Frederick, 1997), adapted for state-based daily reporting. Participants rated items such as "Today, I feel alive and vital" and "Today, I have energy and spirit"

[1] The study initially included a within-day switching indicator; however, within-day switching showed insufficient variability/occurred too infrequently (226 daily observations across 144 participants) to support multilevel analyses. Accordingly, HWASI was operationalized as between-day switching frequency in all primary models.

on a 7-point scale from 1 (*not at all true*) to 7 (*very true*). Item responses for a given day were averaged to create a composite indicator of daily vitality. Higher scores indicate greater vitality. This scale has demonstrated strong psychometric properties in prior daily diary studies (Bostic et al., 2000). Vitality demonstrated acceptable internal consistency, average $\alpha = .96$.[2]

Work Characteristic Moderators

Daily Task Switching (after-work, *t*). Task switching was assessed with four items developed for this study to capture daily experiences of task transitions. A sample item includes, "Today, I switched between different tasks throughout my workday." Responses were rated on a 7-point Likert scale from 1 (*strongly disagree*) to 7 (*strongly agree*), with higher scores reflecting more frequent task switching. Item responses were averaged to create a daily task switching scale which demonstrated acceptable internal consistency, average $\alpha = .89$.

Daily Task Complexity (after-work, *t*). Task complexity was assessed using four items adapted from Maynard and Hakel's (1997) original task complexity scale, modified for daily use following Sia and Appu's (2015) approach. A sample item includes: "Today, I found my tasks to be complex." Participants rated each item on a 7-point Likert scale from 1 (*strongly disagree*) to 7 (*strongly agree*), with higher scores indicating greater perceived complexity of that day's work tasks. Item responses were averaged to create a daily task complexity scale which demonstrated acceptable internal consistency, average $\alpha = .95$.

[2] Internal consistencies were calculated separately for each daily assessment and averaged across the diary period

Daily Autonomy over Work Location (after-work, *t*). Work location autonomy was measured using a single Yes/no item: "Did you have the flexibility to choose the physical location where you worked today?"

Next-Day Outcomes

State Subjective Job Performance (night, *t + 1*). Task performance was assessed using three items adapted from Goodman and Svyantek's (1999) task performance scale, which was subsequently validated in daily diary studies by Xanthopoulou et al. (2008) and Demerouti et al. (2015). An example item includes "Today, I performed well." Responses were rated on a 7-point scale from 1 (*strongly disagree*) to 7 (*strongly agree*), with higher values indicating greater job performance. Items were averaged to create a daily job performance score. Job performance demonstrated acceptable internal consistency, average α = .93.

State Job Satisfaction (night, *t + 1*). Daily job satisfaction was measured by averaging three items adapted from Lawler et al. (1980), such as "Today, I am satisfied with my job." Responses were rated on a 7-point scale from 1 (*strongly disagree*) to 7 (*strongly agree*), with higher values indicating greater satisfaction. This scale has demonstrated strong psychometric properties in prior daily diary studies (Loi et al., 2009). Job satisfaction demonstrated acceptable internal consistency, average α = .97.

State Affect (night, *t + 1*). Daily positive and negative affect scores were created from averaging items from a short form (5 positive items, 5 negative items) of the Positive and Negative Affect Schedule (PANAS; Watson et al., 1988). Participants rated their experience of emotions such as "excited," "interested," "anxious," and "frustrated" during that specific moment in time, using a 5-point scale from 1 (*not at all*) to 5 (*a great* *deal*). Positive affect demonstrated acceptable internal consistency, $\alpha = .93$. Negative affect also demonstrated acceptable internal consistency, average $\alpha = .86$.

Covariates

Individual Difference Moderators (Baseline). Given the reliance on demands and resources for the current research, two covariates that were measured once at baseline were used for all models: executive functioning and emotional regulation. Executive functioning is an important factor when considering available cognitive resources (Gross & Grossman, 2010), making it an important factor to control for when imbalance between resources and demands is in question. Executive functioning was measured using a 27-item scale ranging from 1 (*not at all*) to 5 (*very true*; Spinella, 2005). Executive functioning demonstrated marginal but acceptable internal consistency, $\alpha = .67$. Similarly, emotional regulation is considered a resource that relates directly to key outcomes such as affect (Buruck et al., 2016), and thus should also be considered when modeling such outcomes. Emotional regulation was measured using a 10-item scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*; Gross & John, 2003). Emotional regulation demonstrated acceptable internal consistency, $\alpha = .77$.

Analytic Strategy

Analyses were conducted in R using hierarchical linear modeling (HLM) to account for the nested structure of the data (daily observations nested within persons). Primary hypothesis tests were estimated using random-intercept mixed-effects models (lme4/lmerTest), with fixed effects evaluated using maximum likelihood (ML) estimation. To isolate within-person effects, all focal level 1 (daily) predictors and mediators were person-mean centered (PMC), making all coefficients represent deviations from each participant's own average on any given day. Furthermore, all level 2 (trait) variables were grand-mean centered (GMC).

Consistent with best practices in ESM research and the temporal ordering of the study design, all nightly outcome variables were lagged to the next calendar day, such that day *t* predictors and after-work energy variables were used to predict outcomes on day $t + 1$ only when the next observation occurred on the immediately following day (i.e., excluding weekends and missing days). This approach for the timing of the analyses was selected to align with the expected time course of the study variables. That is, past ESM literature recommends measurement timing that matches the period in which constructs are expected to vary (see Fisher & To, 2012). It was expected that HWASI would have more immediate associations with exhaustion and vitality. In contrast, task performance, job satisfaction, and affect were modeled as next-day to preserve temporal ordering and investigate whether the effects of HWASI carried over to the following workday. With that said, it is acknowledged that assessing next-day outcomes after an overnight period may have weakened the relationships due to sleep or recovery.

Day was also examined as a potential control variable, but models suggested day was not significantly associated with outcome variables and thus it was excluded as a control variable. Intraclass correlation coefficients (ICCs) from unconditional models were also computed to test the proportion of variance attributed to between-person differences and justify the use of multilevel modeling. Finally, all assumptions were evaluated prior to hypothesis testing. Due to substantial skew in next-day negative affect, leading to a violation of the normality assumption, negative affect was excluded from the multilevel hypothesis testing. All other assumption checks were satisfactory.

Results

Participants completed 1349 of 1440 potential daily surveys (*min* = 3 days, *max* = 10 days, *M* = 9.37 days), resulting in a 93.7% completion rate. Participants reported between 1 and 8 between-day switches during the study window (*M* = 3.24, *SD* = 1.68), with a large majority (62.5%) of participants switching between 2 to 4 times. See Figure 2 for distribution of between-day switching frequency. Core variable means, standard deviations, and correlations are presented in Table 1. For lagged analyses, next-day outcomes were calculated only when the next survey occurred on the immediately following calendar day, resulting in fewer usable day-level observations for next-day models.

To support the use of multilevel modeling, several unconditional (i.e., intercept-only) multilevel models were used. These models tested the proportion of variance in daily energy and next-day outcomes attributable to differences between individuals. Results indicated substantial between-person variance in daily energy and next-day outcomes, lending support for the use of multilevel analysis. Specifically, ICCs were .64 for exhaustion, .54 for vitality, .58 for next-day task performance, .83 for next-day job satisfaction, and .79 for next-day positive affect. See Table 2.

Consistent with the analytic strategy described above, hypotheses and research questions were tested using separate random-intercept multilevel models. Coefficients are unstandardized and reflect within-person effects for PMC Level 1 predictors. Model results are summarized in Table 3. Research question 1 pertained to the relationship between HWASI and energy levels. Daily HWASI frequency was not significantly associated with same-day exhaustion, $b = 0.04$, SE = 0.08, $t(851) = 0.52$, $p = .60$. Daily HWASI frequency was also not significantly associated with same-day vitality, $b = -0.01$, SE = 0.07, $t(850) = -0.12$, $p = .91$. Thus, no support was found for a relationship between HWASI and energy levels.

Research question 2 asked whether HWASI frequency would predict next-day outcomes such as job performance, job satisfaction, and affect. Daily HWASI frequency did not significantly predict next-day task performance, $b = -0.06$, SE = 0.06, $t(498) = -0.95$, $p = .34$, next-day job satisfaction, $b = 0.05$, SE = 0.06, $t(489) = 0.78$, $p = .44$, or next-day positive affect, $b = 0.08$, SE = 0.05, $t(492) = 1.61$, $p = .11$. These results suggest that HWASI had no main effect on next-day work outcomes.

H1a predicted that daily exhaustion would be negatively associated with next-day job performance, whereas H1b predicted that daily vitality would be positively associated with next-day job performance. Neither daily exhaustion, $b = -0.02$, SE = 0.03, $t(662) = -0.51$, $p = .61$, nor daily vitality, $b = 0.01$, SE = 0.03, $t(664) = 0.17$, $p = .86$, significantly predicted next-day job performance. Thus, H1a and H1b were not supported. H2a predicted that exhaustion would be negatively associated with job satisfaction, whereas H2b predicted that vitality would be positively associated with job satisfaction. Exhaustion significantly predicted job satisfaction, $b = -0.10$, SE = 0.03, $t(654) = -3.90$, $p < .001$, such that on days when employees felt more exhausted than usual, they reported lower job satisfaction the following day. Daily vitality did not significantly predict next-day job satisfaction, $b = -0.06$, SE = 0.03, $t(654) = -1.87$, $p = .06$. Therefore, support was found for hypothesis H2a, but not H2b. Hypotheses H3a and H3b tested associations between energy and positive affect. Daily exhaustion did not significantly predict next-day positive affect, $b = -0.01$, SE = 0.02, $t(656) = -0.56$, $p = .58$, and daily vitality did not significantly predict next-day positive affect, $b = -0.02$, SE = 0.03, $t(656) = -0.80$, $p = .43$. Thus, H3a and H3b were not supported. It is important to note again, hypotheses H3c and H3d were not tested given the skew of negative affect as an outcome variable.

Research question 3 examined whether exhaustion and/or vitality would mediate the relationship between HWASI and next-day outcomes. To answer this question, indirect effects were estimated using a Monte Carlo approach with 20,000 simulations to generate 95% confidence intervals. The indirect effect of HWASI on next-day job satisfaction through exhaustion was statistically significant (indirect $b = -0.02$, 95% CI [−0.04, −0.00]). All other indirect effects through both exhaustion and vitality were not statistically significant.

Research question 4 asked whether work characteristics such as task switching, task complexity, and autonomy over work location would moderate the relationship between HWASI and energy levels. None of the HWASI × work characteristic interaction terms significantly predicted exhaustion or vitality. However, it should be noted that several work characteristics showed significant main effects on exhaustion. That is, task switching was positively associated with exhaustion, $b = 0.17$, SE = 0.03, $t(854) = 5.47$, $p < .001$; task complexity was positively associated with exhaustion, $b = 0.23$, SE = 0.03, $t(856) = 7.54$, $p < .001$; and autonomy over work location was negatively associated with exhaustion, $b = -0.30$, SE = 0.10, $t(860) = -2.87$, $p < .01$. Main effects for vitality were not statistically significant at conventional levels. Thus, we do not find overall RQ4 support for moderation, but day-to-day work characteristics were reliably associated with exhaustion through main effects.

However, results revealed some interesting findings regarding task complexity and switching and the study outcomes. Specifically, task switching was positively associated with exhaustion ($b = 0.17$, SE = 0.03, $t = 5.46$, $p < .001$), and task complexity was also positively associated with exhaustion ($b = 0.23$, SE = 0.03, $t = 7.54$, $p < .001$). In contrast, autonomy over work location was negatively associated with exhaustion ($b = -0.30$, SE = 0.10, $t = -2.87$, $p < .05$). No significant main effects of moderates on vitality were found. Although these were post hoc main effects rather than hypothesized moderation effects, they are interpreted as part of the study's theoretical and practical implications and help inform the future research directions discussed later.

Post Hoc Analyses

Given that daily diary designs also lend themselves to examining same-day fluctuations in work experiences and outcomes, a few additional post hoc analyses were conducted. These additional analyses are of interest because they offer an alternate way of understanding hybrid work experiences. First, we sought to understand the immediate same-day effects that switching had on outcomes. Results demonstrated that on days when work location was different from the day before, participants reported significantly lower same-day job satisfaction, b = -0.09, SE = 0.05, $t(753)$ = -2.00, p = .046, and significantly lower same-day positive affect, b = -0.11, SE = 0.04, $t(754)$ = -2.92, p = .004. No significant same-day switch-day effects were found for exhaustion, vitality, task performance, or negative affect.

Additional post hoc analyses examined whether daily exhaustion and vitality were associated with same-day work outcomes. Results showed that same-day vitality was positively associated with same-day task performance, b = 0.15, SE = 0.03, $t(941)$ = 5.74, p < .001, whereas same-day exhaustion was not significantly associated with task performance, b = −0.03, SE = 0.02, $t(940)$ = −1.11, p = .266. For job satisfaction, same-day exhaustion was negatively associated with job satisfaction, b = −0.09, SE = 0.02, $t(939)$ = −4.53, p < .001, and same-day vitality was positively associated with job satisfaction, b = 0.14, SE = 0.02, $t(940)$ = 6.27, p < .001. For positive affect, same-day exhaustion was negatively associated with positive affect, b = −0.06, SE = 0.02, $t(940)$ = −3.16, p = .002, and same-day vitality was positively associated with positive affect, b = 0.13, SE = 0.02, $t(940)$ = 6.80, p < .001. Finally, same-day exhaustion was positively associated with negative affect, $b = 0.04$, SE = 0.01, $t(937) = 3.58$, $p < .001$, whereas same-day vitality was negatively associated with negative affect, $b = -0.06$, SE = 0.01, $t(938) = -4.55$, $p < .001$. These post-hoc findings suggest that energy levels were more consistently associated with same-day outcomes compared to next-day outcomes. This would be consistent with the possibility that overnight recovery occurs. However, these analyses should be interpreted with caution because the predictors and outcomes were assessed close in time and by the same source, which may inflate same-day associations.

Second, we sought to better understand the outcome differences between days at the office and days working from home. This analysis is interesting given that so little is known about the outcomes of working from home, especially using an ESM methodology. Results indicated that, relative to office days, work-from-home days were associated with lower same-day vitality, $b = -0.17$, $SE = 0.08$, $t(717) = -2.06$, $p = .040$, lower same-day task performance, $b = -0.19$, $SE = 0.06$, $t(653) = -3.00$, $p = .003$, and lower same-day job satisfaction, $b = -0.10$, $SE = 0.05$, $t(652) = -2.12$, $p = .034$. No significant same-day differences were found for exhaustion, positive affect, or negative affect.

Discussion

The purpose of the current study was to understand whether HWASI, operationalized as frequency of switches between working from home and working at the office across days, functions as a day-level job demand. This research question was tested by examining occupational health constructs commonly associated with this type of job demand, namely employee energy and next-day work outcomes (Crawford et al., 2010; Schaufeli, 2017). Despite HWASI being theorized as a vector for energy depletion through cognitive load and demand costs (Sweller, 1988; Demerouti et al., 2001), limited support was found for HWASI as a daily stressor. It was found that switching between days was not significantly associated with same-day exhaustion, vitality, or next-day work outcomes. One interpretation of this finding is that the way HWASI was operationalized in the current study was more aligned with a macro switch (e.g., activity-based working; ABW) rather than a micro-switch (e.g., task or role switching). It would appear that when the switching is more predictable or routinized for the employee, the likelihood of generating meaningful within-person differences diminishes. In the case of between-day switching, it is likely that employees have an understanding before the week begins of what days they will be working from home and what days they will be in the office. This would also align with the finding that hybrid schedules often follow stable weekly patterns (e.g., two days WFH and three days WATO; Heimgartner & Axhausen, 2024). Accordingly, findings are in contrast to other research that has consistently found micro-switching (i.e., task and role switching) is associated with lower energy levels (Pikos, 2017; Yang et al., 2023; Grotto et al., 2021) as well as critical job outcomes (Adler & Benbunan-Fich, 2012; Peifer & Zipp, 2019; Plotinikova et al., 2025), while aligning with the mixed results of macro-switching (Hodzic et al., 2021; Appel-Meulenbroek et al., 2020; Seddigh et al., 2014; Ten Brummelhuis et al., 2012). This null finding is interesting because it would suggest that *not all switching is equivalent*. Micro-switches throughout the day may consistently tax resources and have far stronger associations with energy and work-related outcomes compared to larger planned macro-switches. The data in this study did not have enough variance in within-day switching to examine micro-switching.

Notably, daily energy levels showed little to no consistent predictive power for next-day work outcomes. These findings are largely in direct contrast to previous research that has found connections between energy and work outcomes (Ferreira et al., 2019; Janssen et al., 2010). However, neither of these investigated next-day associations, again suggesting that recovery time may play an important role in this relationship. The exception in the current study was that on days when employees felt more exhausted than normal, they also reported significantly lower job satisfaction the following day. Furthermore, the only significant indirect path from HWASI to next-day work outcomes was to job satisfaction through exhaustion. This singular finding is aligned with past research that found exhaustion undermines attitudes towards work (Elci et al., 2018; Cropanzano et al., 2003). Despite the null effects, these findings are still important. They suggest that the specific next-day outcomes assessed here are not equally sensitive to day-to-day energy fluctuations. One plausible explanation of this is that more state-like constructs such as performance and affect may be more proximally associated with exhaustion, but rebound after recovery time, whereas job satisfaction is susceptible to more lingering depletion effects.

With respect to the moderating effects of differing work characteristics, no significant interaction terms were found. Given the exploratory nature of this study and the uncertainty of HWASI as a job demand, these null findings are not particularly surprising.

Theoretical Implications

This study offers important theoretical implications. Firstly, it extends Cognitive Load Theory to the domain of hybrid work by conceptualizing switching as macro (e.g., daily routine switches) beyond the traditional micro (e.g., task switching) that have been previously observed. Although HWASI showed limited direct associations with daily energy and next day outcomes, these findings inform us that there are different levels to switching that may impact cognitive load differently. These findings help us understand how switching should be defined and theorized in hybrid work. More specifically, how predictability, routinization, and disruption may play a critical role in the cognitive demand of switching.

Secondly, this research has implications for the occupational health literature. Importantly, based on the findings from this research, daily energy carryover seems to be selective. Daily energy did not reliably predict most next-day outcomes (i.e., performance/affect) however, exhaustion did predict lower next-day job satisfaction. Although this could be an outlier finding that resulted from lack of variance in these outcomes, it does have potential implications. Depletion may translate most consistently when it comes to how individuals evaluate their job rather than how well they do their job or how they feel. In other words, energy may more directly impact global appraisals rather than discrete feelings. From a JD-R perspective, this implies that strain pathways may be most detectable across days when the outcomes reflect a more stable evaluation compared to more immediate state-like outcomes such as perceived performance.

Practical Implications

This study also offers several important practical implications for organizations. First, the null results would suggest that between-day location switching is not inherently harmful. At this time, organizations should not dump resources into reducing the frequency of switching that employees are engaging in throughout the workweek. However, based on the theorized importance of predictability, routinization in combination with the main effect of autonomy over work location, it may still be important to allow employees to have consistent hybrid patterns where they are allowed to choose their work location. Thus, organizations may benefit from implementing a policy that requires a certain number of days remote and in the office, but allows the employee to choose which days are spent where, without worry of switching costs. However, more research is needed in this area.

Although not hypothesized, exploratory analyses indicated that task-switching and task complexity were important indicators for energy levels. In terms of task complexity, employees may need extra support or resources on days with more complex tasks. For task-switching, processes can be implemented that reduce this behavior. Organizations should be hesitant to induce unnecessary task switching in their employees when possible. Furthermore, encouraging employees to batch similar work and create clear priorities for the week may provide fruitful results in reducing exhaustion. However, given the lack of a priori hypotheses in the current research, these findings should be interpreted cautiously and replicated before any immediate policy changes are made.

Finally, the most explicit implication to come from the current research is to monitor and manage exhaustion. Past research found that exhaustion is associated with commitment and satisfaction (Cropanzano et al., 2003; Elci et al., 2018; Parmar et al., 2022). Extending this literature, the current study found a connection between higher exhaustion and worse next-day feelings about the job. Taken together, these findings suggest that employers should not only attend to their employee's overall feelings of exhaustion, but also their day-to-day fluctuations in exhaustion that may shape their subsequent job evaluations. If left unchecked, these employees may choose to turnover, costing the organization greatly.

Limitations & Future Directions

Although the current study has several practical and theoretical strengths, several methodological limitations should be briefly noted. First, the sample was limited to U.S. citizens recruited through Prolific and was skewed towards being white, educated, and male, which may have limited generalizability of these findings. The sample also did not explicitly target employees who might experience a lot of shifting, such as mid-level managers. Second, data collection occurred near the end of November and beginning of December, close to the holiday season. This timing may have affected employees' work schedules, location-switching patterns, and the number of switches observed during the study period.

Another limitation concerns the operationalization of HWASI. The current study focuses on between-day work location switching, which may have limited the study's ability to detect switching-related depletion. Although an attempt was made to collect information on within-day micro-switching (e.g., switching environments within a single work day), not enough participants in the current sample engaged in this type of switching. However, this does not mean that this more rare type of switching is not meaningful when it does occur. It is plausible that switching between days may be more routinized and therefore less cognitively disruptive compared to switching within-day which may occur more without planning. Measuring within-day switching could also help researchers better understand the directionality of switching (WFH to WATO vs. WATO to WFH), offering a more unique avenue for research that is more aligned with the consistent impacts of micro-switching on energy levels. Furthermore, HWASI was measured using a single item. Despite this item directly capturing whether employees changed work locations, it failed to capture nuances such as whether the switch was planned, required, disruptive, or beneficial. Thus, much work remains to be done before a full understanding of the impacts of HWASI is achieved.

Relatedly, another important future direction for research would be to consider whether the effects of HWASI are nonlinear rather than strictly negative. As previously discussed, it is possible that low to moderate levels of switching may function as a resource that give employees flexibility, variety, and better work settings, whereas more frequent switching may begin to become cognitively taxing and operate more like a job demand. Although our sample demonstrated some overall variability in between-day switching across the study window, the daily operations used here may have been too routinized to capture these more complex patterns. Therefore, future research should consider curvilinear forms of HWASI.

Second, although this study takes a unique ESM approach to studying hybrid work switches, it fails to capture the long-term cumulative effects of HWASI (e.g., months or years). For purposes of parsimony and exploration, the present study limited analysis to the prediction of single next-day outcomes. However, chronic exposure to frequent transitions may result in a buildup effect and thus yield different impacts on energy levels and outcomes that the day-to-day fluctuations won't capture. Future research should consider taking an extended longitudinal approach while also accounting for cumulative effects to better understand this phenomenon on a more long term basis.

Third, this study does not contain a comparison group of employees that are exclusively WFH or WATO. As a result, it is impossible to determine whether hybrid switching is inherently more depleting than other work arrangements, or whether certain outcomes are driven by contextual differences unrelated to switching intensity. Although this research does take a novel approach to compare different levels of switching in hybrid settings, future research should consider investigating the depletion of these exclusive groups as well as hybrid work switching.

Last, the final analysis for this paper was limited in detecting small effects by power constraints. As previously stated, of the 167 participants that agreed to participate in the study, 23 reported zero switches in the two-week period. While it is impossible to know the motive for participating in the study, the reduction in sample size, combined with limited within-person variability in switching for some participants, likely impacted the power of the analysis. Thus, some effects that were near conventional thresholds, such as the interaction between HWASI and task complexity, may have changed.

Conclusion

The purpose of the current study was to investigate a novel job demand, HWASI. Overall, results provided limited evidence that between-day location switching functions as a consistent day-level demand. However, more research needs to be done in this area to flesh out the concept of switching that occurs within hybrid-work. There appear to be important differences between large macro-switches and smaller micro-switches. Future research should refine HWASI by testing more micro-level switching between environments for hybrid workers. Practically, organizations should focus on managing daily demands/resources rather than switches between work environments. Moving forward, more work still needs to be done to refine HWASI as a viable measure of a unique job demand experienced by hybrid workers.

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Table 1.

Core variable means, standard deviations, and correlations

No.	Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12
1	Between-Day Switching (Proportion)	0.48	0.2	—											
2	Exhaustion	2.90	1.5	0.07	—										
3	Vitality	4.99	1.1	-0.12	-0.75**	—									
4	Task Performance	5.86	0.80	0.02	-0.45**	0.56**	—								
5	Job Satisfaction	5.46	1.3	-0.01	-0.65**	0.65**	0.46**	—							
6	Positive Affect	2.54	1	0.05	-0.51**	0.62**	0.52**	0.53**	—						
7	Negative Affect	1.32	0.4	0.05	0.58**	-0.51**	-0.40**	-0.41**	-0.22**	—					
8	Task-Switching	3.75	1.2	-0.02	0.30**	-0.07	0.01	-0.14	-0.1	0.15	—				
9	Task Complexity	3.84	1.4	-0.04	0.32**	-0.06	0.04	-0.08	0.00	0.21*	0.50**	—			
10	Work Location Autonomy (Proportion)	0.58	0.4	0.02	-0.12	0.14	0.02	0.05	-0.04	-0.17*	-0.06	0.05	—		
11	Executive Functioning	3.82	0.4	-0.11	-0.41**	0.51**	0.56**	0.32**	0.55**	-0.46**	-0.06	0.01	0.00	—	
12	Emotion Regulation	4.75	0.8	-0.18*	-0.22**	0.23**	0.20*	0.18*	0.26**	-0.07	-0.08	-0.10	-0.01	0.21*	—

*Note. N = 144. Daily variables were aggregated within individuals across completed worked days to create person-level means. Between-day switching proportion and work location autonomy proportion represent the proportion of worked days on which those experiences occurred. * p < .05 . ** p < .01. *** p < .001*

Table 2

Intraclass Correlations for Daily Energy and Next-Day Outcomes

Variable	**Timing**	**ICC**
Exhaustion	Same-day	0.64
Vitality	Same-day	0.54
Task performance	Next-day	0.58
Job satisfaction	Next-day	0.83
Positive affect	Next-day	0.79

Note. ICCs were estimated from unconditional (random-intercept) multilevel models.

Table 3.
Multilevel Results for Hypothesized Model

Section	Predictor	Outcome	*b*	*SE*	*t*	*p*	sig
RQ1a	HWASI	Exhaustion	0.04	0.08	0.52	0.602	
RQ1b	HWASI	Vitality	-0.01	0.07	-0.11	0.909	
RQ2a	HWASI	Next-Day Task Performance	-0.06	0.06	-0.95	0.34	
RQ2b	HWASI	Next-Day Job Satisfaction	0.04	0.06	0.78	0.437	
RQ2c	HWASI	Next-Day Positive Affect	0.08	0.05	1.61	0.108	
H1a	Exhaustion	Next-Day Task Performance	-0.01	0.03	-0.51	0.614	
H1a	Vitality	Next-Day Task Performance	0.01	0.03	0.17	0.862	
H2b	Exhaustion	Next-Day Job Satisfaction	-0.10	0.03	-3.90	< .001	***
H2b	Vitality	Next-Day Job Satisfaction	-0.06	0.03	-1.87	0.062	
H3c	Exhaustion	Next-Day Positive Affect	-0.01	0.02	-0.56	0.575	
H3c	Vitality	Next-Day Positive Affect	-0.02	0.03	-0.79	0.427	
Exploratory	Task Switching	Exhaustion	0.17	0.03	5.46	< .001	***
RQ4a	HWASI x Task Switching	Exhaustion	0.01	0.07	0.16	0.875	
Exploratory	Task Switching	Vitality	-0.06	0.03	-1.96	0.051	
RQ4a	HWASI x Task Switching	Vitality	-0.05	0.07	-0.81	0.416	
Exploratory	Task Complexity	Exhaustion	0.23	0.03	7.54	< .001	***
RQ4b	HWASI x Task Complexity	Exhaustion	0.09	0.07	1.28	0.201	
Exploratory	Task Complexity	Vitality	-0.03	0.03	-1.09	0.275	
RQ4b	HWASI x Task Complexity	Vitality	-0.13	0.07	-1.94	0.052	
Exploratory	Work Location Autonomy	Exhaustion	-0.30	0.10	-2.87	< .01	**
RQ4c	HWASI x Work Location Autonomy	Exhaustion	-0.24	0.23	-1.02	0.307	
Exploratory	Work Location Autonomy	Vitality	0.09	0.10	0.91	0.361	
RQ4c	HWASI x Work Location Autonomy	Vitality	0.33	0.21	1.54	0.124	

*Note. Coefficients are unstandardized. Primary hypothesis tests were estimated using random-intercept mixed-effects models. Level 1 predictors were person-mean centered (PMC). Next-day outcomes were lagged to the immediately following calendar day only (t + 1). Negative affect was excluded from primary multilevel hypothesis testing due to distributional problems. * p < .05. ** p < .01. *** p < .001.*

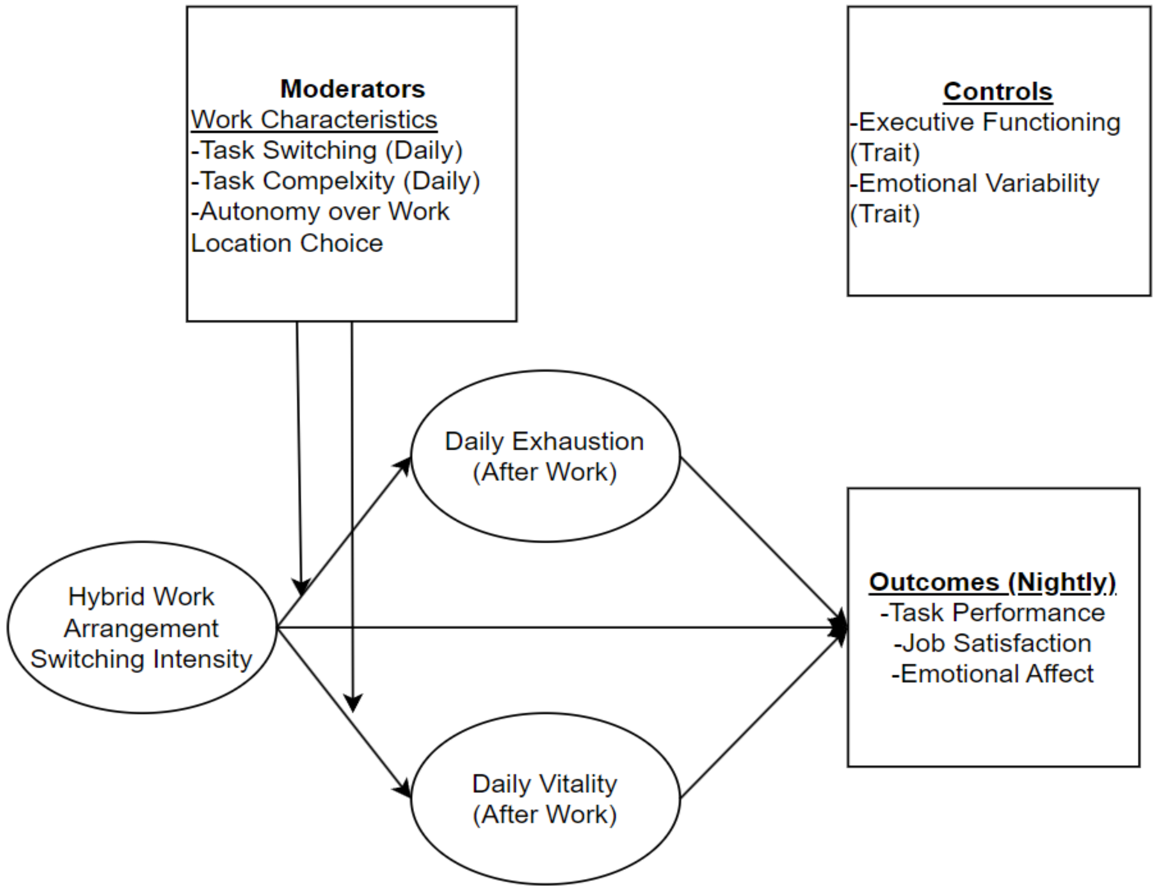
Table 4.
Monte Carlo Confidence Intervals for Indirect Effects

Outcome	Indirect Effect via Exhaustion	95% CI	Indirect Effect via Vitality	95% CI	Total Indirect Effect	95% CI	Total Effect	95% CI
Next-Day Task Performance	-0.001	[-0.019, 0.017]	0.001	[-0.013, 0.015]	0.000	[-0.017, 0.016]	-0.058	[-0.177, 0.064]
Next-Day Job Satisfaction	-0.016	[-0.040, -0.000]	0.010	[-0.002, 0.030]	-0.006	[-0.030, 0.015]	0.043	[-0.068, 0.156]
Next-Day Positive Affect	0.003	[-0.011, 0.019]	0.002	[-0.008, 0.014]	0.005	[-0.008, 0.019]	0.077	[-0.016, 0.169]
Next-Day Negative Affect*	-0.001	[-0.009, 0.007]	-0.001	[-0.008, 0.004]	-0.002	[-0.009, 0.005]	-0.022	[-0.072, 0.027]

Note. Indirect effects were estimated using Monte Carlo simulation with 20,000 replications.

Figure 1

Conceptual Model and Hierarchical Linear Regression.



*Note. Coefficients are unstandardized. Complete model results can be found in Table 3. * p < .05 . ** p < .01.*

Figure 2

Distribution of Between-Day Switching Frequency Over 10 Working Days