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Was This Part of the Plan? Examining Planning as a Mechanism to Mitigate Workplace Intrusions

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by

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Was This Part of the Plan? Examining Planning as a Mechanism to Mitigate Workplace Intrusions

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Abstract

Title: Was This Part of the Plan? Examining Planning as a Mechanism to Mitigate Workplace Intrusions

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Workplace intrusions are commonplace in every organization. Limited preliminary work (e.g., Moon et al., 2020) is beginning to suggest that certain individuals may be more susceptible to workplace interruptions. Yet, it is unclear why individual differences may predict interruptions and how unexpected interruptions throughout the workday can be mitigated. Thus, this study examined these issues, focusing on dispositional self-control and planning as potential antecedents of intrusions as well as task performance and work-related stress as potential consequences of intrusions. Specifically, this research first adds to the literature by examining dispositional self-control as a predictor of the experience of workplace intrusions. Second, we examined planning implications for workplace intrusions. Third, we differentiated planning from similar constructs and empirically examined it as a self-control mechanism. These issues were investigated in a study involving a combination of dispositional measures and a daily survey throughout the course of a work week using participants from MTurk and snowball sampling ($N = 165$). Results indicated that dispositional self-control did not predict planning, but it did

predict intrusions and work-related stress; planning predicted intrusions and task performance, but not work-related stress; and intrusions predicted task performance and work-related stress. However, no indirect effects were found in the hypothesized direction. This study (a) supports the notion from prior research that dispositional self-control predicts interruption frequency and provides empirical evidence suggesting dispositional self-control also predicts interruption severity; (b) indicates planning may not play an important role in this relationship, indirectly suggesting that unconscious mechanisms (e.g., habits and routines) might play a more prevalent role than conscious mechanisms (e.g., planning); and (c) confirms intrusions are detrimental to both performance and well-being.

Keywords: planning, intrusions, interruptions, self-control, time management, work-related stress, task performance

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Introduction

Interruptions are a common and costly issue for many individuals and organizations. It is estimated that workers are interrupted approximately 10 to 20 times per day (Leroy & Glomb, 2021). These interruptions can occur every six to 12 minutes, with the duration varying depending on the complexity of the task (Leroy & Glomb, 2021). The impact of interruptions amounts to over two hours a day in lost productivity and can lead to negative outcomes in quality, engagement, and stress levels (Iqbal & Horvitz, 2007; Mark et al., 2008). Interruptions cost American businesses nearly $650 billion a year and can take many forms (Kuligowski, 2020). For instance, a coworker might send an instant message requiring immediate help on a project, or a manager might request their employee join an important meeting at the last minute. Interruptions may also involve in-person interactions. Most times, for example, the dreaded “got a minute?” from workplace time bandits results in a significantly longer time sacrifice. These types of interruptions in particular are likely increasing in frequency but may also vary in severity. According to a recent study, employees are returning to their corporate offices after nearly 18 months of pandemic-fueled separation (Feintzeig, 2021). Employees are relearning how to work in the presence of others, often with little to no privacy. Under the guise of collaboration and bonding, organizations are blocking off entire half-days for team-building events. While these events can enable

feelings of organizational and team connectedness, they can also be a bit distracting.

Workplace interruptions have been linked with negative performance and well-being outcomes (see Puranik et al., 2020). For example, interruptions may lead to higher rates of exhaustion or stress-related issues and an increased error rate. Previous studies have estimated it takes workers nearly 25 minutes to get back on track after being interrupted (Mark et al., 2005). Victims of workplace interruptions find themselves struggling to pick up where they left off, trying to regain any momentum they carried previously.

Existing research thus indicates that interruptions are frequent and disruptive for many individuals and organizations. However, less is known about the factors that may lead to interruptions. Therefore, the purpose of the current research is to explore this issue in more depth. In particular, limited preliminary work is beginning to suggest that certain individuals may be more susceptible to workplace interruptions (e.g., Moon et al., 2020; O'Conaill & Frohlich, 1995; Puranik et al., 2021; Wilkes et al., 2018). That is, some interruptions might result from an uncontrollable, externally driven event that may not have clear links to personal characteristics. However, research has also suggested that individual traits–specifically dispositional self-control–may predict interruption frequency (Moon et al., 2020). Given the limited work on this issue, this research area could benefit from detailed studies investigating why self-control may predict

interruptions. Thus, this research examines the issue of how self-control might predict interruptions, focusing on planning as a potential factor.

In doing so, the current research was designed to contribute to this area in three ways. First, it appears that only one published empirical article has examined the link between self-control and interruptions (Moon et al., 2020). Given that interruptions often stem from external factors, it is perhaps somewhat surprising that an internal characteristic (dispositional self-control) predicts these events. Thus, this study provides needed confirmation and extension of this work to strengthen the evidence regarding the extent to which dispositional characteristics relate to interruptions.

Second, there is no shortage of ideas or suggestions to help mitigate workplace interruptions. Some experts recommend using headphones or flags to help convey a "heads down workday," whereas other experts suggest developing a plan to handle inevitable interruptions. However, clear evidence on this issue is limited. Thus, this research also contributes to this area by examining the implications of planning for workplace interruptions.

Third, recent research has explored the mediating mechanisms involved in self-control effects (e.g., Galla & Duckworth, 2015; Gillebaart & Adriaanse, 2017). Several studies have focused on habitual behaviors, in particular, suggesting that self-control leads to positive achievement and well-being outcomes through habits. For instance, Galla and Duckworth (2015) found self-control predicted better homework habits, which in turn led to homework completion and better grades.

This work suggests that self-control may have its effects largely through less effortful and conscious mechanisms, as once habits are formed, they do not require conscious thought and are triggered even in the absence of goals (Ouellette & Wood, 1998; Wood & Neal, 2007). In contrast, this research examines a different type of mechanism–planning–that is less automatic in nature. Although less effortful and conscious mechanisms may be important, a fuller picture of self-control processes requires more thorough investigation of more effortful and conscious mechanisms as well. Thus, this study also contributes to this research area by conceptually differentiating planning from similar constructs (habits and routines) and empirically examining planning as an underlying explanatory mechanism of self-control.

In summary, the current research examines the issue of workplace interruptions by (a) investigating whether self-control as a dispositional trait predicts interruptions, (b) exploring planning as a mitigation strategy, and (c) focusing on the more effortful and conscious mechanism of planning. Thus, the overall goal of this research is to provide theoretical and practical insights into employee behavior related to the experience of interruptions. For instance, in terms of theoretical insights, this research may provide greater depth of understanding regarding the relationship between self-control and interruptions by revealing the extent to which planning plays a role in this link. In addition, planning may be a natural tendency linked to certain traits, but it is also a behavior that can be developed. Thus, findings from this research may provide employees and

organizations with practical insights on how to reduce unwanted workplace interruptions. To address these issues, we first synthesize existing literature on workplace interruptions, habits, routines, and planning; then we discuss the links between dispositional characteristics, linking mechanisms, and outcome variables (see Figure 1 for a summary).

Chapter 1
Literature Review

Workplace Interruptions

In their review, Puranik et al. (2020) defined an interruption as "an unexpected suspension of the behavioral performance of, and/or attentional focus from, an ongoing work task" (p. 817). Workplace interruptions are inevitable in any organization. Employees are seemingly always accessible to coworkers, a fact that has been exacerbated by technology. Face-to-face meetings, instant messaging, text messages, phone calls, and emails are prevalent examples of interruptions experienced by employees.

In their taxonomy of workplace interruptions, Jett and George (2003) outline four types: intrusions, breaks, distractions, and discrepancies. Intrusions involve unscheduled events such as personal visits or phone calls. These events require time and effort that do not readily translate to the current task being performed. Breaks, on the other hand, can be planned or unscheduled. Typically, this time away from the task being performed is self-initiated and offers recovery and rejuvenation from demanding work effort. Examples of breaks include stopping to have lunch or making a personal phone call. Distractions are reactions to stimuli that are triggered by competing resources. For example, loud conversations or hearing a television in another room might disrupt an individual's concentration. Discrepancies occur when individuals are presented with

inconsistent perceptions and information related to a task being performed. In other words, a discrepancy might occur when events or perceptions are different from the expectation of an individual (e.g., sales numbers being lower than expected). The current study focuses specifically on intrusions defined as "an unexpected encounter initiated by another person that interrupts the flow and continuity of an individual's work and brings that work to a temporary halt" (Jett & George, 2003, p. 495).

Given this, the concept of unexpectedness is viewed as a core attribute that determines whether an event should be considered an intrusion. Another indication of an intrusion is the intent to return to the previously interrupted task (Puranik et al, 2020). Individuals often linger in their attentional division when interrupted by a new task. In these cases, there are often negative cognitive resource and performance implications (Leroy, 2009). Even after the task is completed, task attention may still be divided (Leroy & Schmidt, 2016). Research has supported that the unexpectedness related to interruptions can have negative effects (e.g., Fonner & Roloff, 2012; Tams et al., 2015), in that the incremental effort needed to address the intrusion may lead to emotional exhaustion, lower job satisfaction, and lower situational well-being (Baethge et al., 2015; Pachler et al., 2018; Russell et al., 2017).

This research examines work intrusions such as e-mails, meetings, phone calls, and other disruption events resulting from external stimuli. These unexpected encounters can cause employees to experience difficulties in completing assigned

tasks and to miss deadlines altogether. In a traditional office environment, employees find themselves interrupted by coworkers hoping to avoid scheduling a meeting or drafting an email. For virtual employees, these intrusions might come in the form of instant messages or impromptu conference and video calls. While this practice might seem more efficient, the disruption to planned work can have detrimental effects on job performance and stress management levels (Fletcher et al., 2018; Lin et al., 2013; Parke et al., 2018; Rogers & Barber, 2019; Sonnentag et al., 2018). In a virtual world, employees might feel pressure to respond immediately, disrupting planned work.

Many researchers have studied the impact of interruptions on productivity, well-being, and other performance metrics (e.g., Baethge et al., 2015; Pachler et al., 2018; Rosen et al., 2019; Tams et al., 2015; Zohar et al., 2003). Many of these studies indicate negative effects on these outcomes. Other frameworks suggest that an unwanted intrusion may have a demotivating effect, often resulting in lower enthusiasm and frustration towards goal progress and task performance (Beck et al., 2017). This is consistent with the self-regulatory depletion view that interruptions and intrusions have the potential to diminish psychological well-being (Lin et al., 2013). It should be noted, however, that other studies have suggested that interruptions can sometimes have positive effects and may even lead to increased creativity or innovation (e.g., Donmez et al., 2014; Perlow & Weeks, 2002). Previous research has also examined the use of intrusions to satisfy an individual's

need for interaction in an effort to enable positive affect and increased well-being (e.g., Baethge et al., 2015; Gagne & Deci, 2005).

Intrusions might be mitigated by successful time management practices such as scheduling blocks of time for off-task meetings or planning for inevitable disruptions of work. Additionally, individuals might opt to group similar intrusions together in an effort to minimize task switching and unexpected cognitive demands. However, the use of standardized responses, prioritization, and planning has been largely unexplored (Puranik et al., 2020).

Planning

Recent self-control research focuses on explanatory mechanisms that are less effortful and more automatic (e.g., Galla & Duckworth, 2015; Hersch, 2005; van der Weiden et al., 2020). This study complements this recent emphasis by focusing instead on mechanisms that require conscious thought. Specifically, this study examines planning which has been defined as "determining tasks to be performed on a particular day, prioritizing and scheduling the order of such tasks, and sketching out the approximate amount of time to be spent on each task" (Parke et al., 2018, p. 3).

Planning, or time management, has been a topic of interest for decades. However, researchers have varied in their definitions and application of the construct. In their 2007 review, Claessens and colleagues suggested time management be defined as "behaviors that aim at achieving an effective use of time

while performing certain goal-directed activities" (p. 262). In her seminal work, Macan (1994) attempted to investigate how time management worked and why. The proposed model implied that time management techniques allow individuals to perceive control over their daily productivity. In turn, perceived control led to increased job satisfaction and lower work-related stress (Macan, 1994).

This conceptual definition complements earlier research, combining three types of behaviors: (1) time assessment behaviors, (2) planning behaviors, and (3) monitoring behaviors. Time assessment behaviors refer to cognitive self-awareness which allows an individual to choose achievable tasks and responsibilities (Kaufman et al., 1991; Wratcher & Jones, 1988). Planning behaviors involve productively setting goals, prioritizing, and active planning such as grouping and listing tasks (Macan, 1994). Monitoring behaviors examine how time is being spent performing planned tasks while limiting the influence of interruptions by others (Zijlstra et al., 1999).

Planning can be further broken down into two categories: time management planning (TMP) and contingency planning (CP). TMP refers to determining the tasks that likely need to be performed during a particular time period, such as a day or week, and the approximate time needed for completion (Claessens et al., 2007; Macon, 1994; Parke et al., 2018). CP refers to contemplating events that might happen and developing alternative courses of action (Frese & Zapf, 1994; Parke et al., 2018).

As noted, planning can be differentiated from other potential mechanisms linked to self-control such as habits and routines. A habit has been defined as a process that creates a habitual behavior where an individual's automatic behavior is influenced by a trigger or prompt from a well-established association between a cue and behavior (e.g., Verplanken, 2006; Wood & Neal, 2016). Routines follow a process similar to habits but reflect a pattern of habitual behaviors performed on a regular basis (Piscitello et al., 2019).

Habits can be useful, and "form as people pursue goals in daily life" (Carden & Wood, 2018, p, 117). Also grounded in goal pursuit, the repeated activities associated with routines persist to the point where each activity cues the next, enabling a stimulus-response pattern (McClean et al., 2021). An example of a habit can be illustrated in morning activities. The trigger of waking up might result in automatically getting dressed, brushing your teeth, or making coffee. Routines, on the other hand, are triggered by the completion or activation of the previous behavior. For example, after rising from bed you might automatically brush your teeth and get dressed. After getting dressed, you automatically go to the kitchen to make breakfast. Thus, the key difference between planning and habitual behavior is conscious thought.

Dispositional Self-Control

Self-control involves the "effective regulation of thoughts, feelings, and behaviors" (Converse et al., 2014, p. 65) and has been identified as a primary factor

in explaining personal and social problems (Baumeister & Vohs, 2016). While there has been some debate on formally defining and measuring self-control, most agree it refers to "the capacity to alter or override dominant response tendencies" (de Ridder et al., 2012, p. 77) related to impulsiveness. Research has identified four major domains for self-control: controlling thoughts, emotions, impulses, and performance. Dispositional self-control has also been linked to conscientiousness from the Big Five, through a moderately strong relationship (Tangney et al., 2004). It is also important to note that there is a distinction between state and dispositional self-control. While dispositional self-control is assumed to be relatively stable over time, state self-control may vary across situations and time (de Ridder et al., 2012). This research will examine planning and workplace intrusions as mechanisms linking dispositional self-control to task performance and well-being outcomes.

Research has examined self-control capabilities that can enact positive behavior and inhibit negative behavior (Converse et al., 2018). Studies have identified positive outcomes related to high levels of self-control such as higher GPAs in students, meeting deadlines, and other long-term goals (Duckworth & Seligman, 2005; Tangney et al., 2004). Research has also concluded that high levels of self-control in children, or the ability to delay gratification, later results in higher academic performance (Mishel et al., 1988; Shoda et al., 1990). Lower levels of self-control have been related to harmful behaviors such as smoking and gambling (Bogg et al., 2012; Converse et al., 2014; de Ridder et al., 2011).

In addition to achievement-related outcomes, self-control has also been shown to predict well-being outcomes. Baumeister and colleagues (1998) noted that self-control contributes to effective emotional control resulting in the prevention of self-defeating behaviors. Self-control also results in confidence, positive illusions, optimism, and deliberate self-regulatory processes (e.g., de Ridder et al., 2012; Fischer et al., 2008; Hofmann et al., 2014). The repeated positive outcomes associated with high levels of self-control lay the foundation for positive well-being and task performance.

Task Performance

Job performance has been defined as "things that people actually do, actions they take, that contribute to the organization's goals" (Campbell & Wiernik, 2015, p. 48). Research has supported the notion that performance is behavioral and includes two categories: core technical and contextual performance (Campbell & Wiernik, 2015; Motowidlo & Van Scotter, 1994). Core technical or task performance refers to activities responsible for transforming raw materials into goods or services used by an organization. Examples include retail sales, manufacturing, teaching, and performing surgery. Contextual performance refers to activities that maintain the environments required for the technical core to function. These environments may include social and organizational networks, or the psychological climate associated with the technical core. For example, these activities could relate to following established rules created by the organization regarding legal and safety requirements, or the endorsement and defense of

procedures that are often deemed inconvenient by employees (Motowidlo et al., 1997). Thus, both task and contextual performance activities yield positive contributions to an organization.

Task performance is often defined by the requirements of a specific role (Katz & Kahn, 1978), which can be contrasted with discretionary behavior captured by contextual performance. Contextual performance refers to broader support behaviors not inherently related to the organization's technical core, such as helping and cooperating elements of organizational citizenship behavior (Motowidlo & Van Scotter, 1994; Organ, 1988). Additionally, task performance can be further distinguished by not taking into account prosocial organizational behavior (Brief & Motowidlo, 1986) and organizational spontaneity (George & Brief, 1992).

Well-Being

Well-being has been studied extensively for decades. Initial research found that the concept of well-being can be separated into two views: hedonic and eudaimonic (Ryan & Deci, 2001). Hedonism is often defined as pleasure versus pain and has been conceptualized as maximizing human happiness (e.g., Kahneman et al., 1999; Ryan & Deci, 2001). Distinct from subjective happiness, eudaimonic well-being focuses on happiness that occurs when activities align with an individual's values and are validated (Waterman, 1993). Eudaimonic well-being posits that the benefits associated with outcomes will vary based on the individual

and they occur when the individual acts in a way congruent with underlying beliefs. In other words, while hedonism focuses only on pleasure and happiness, eudaimonism distinguishes itself by also focusing on needs, such as goal-related activities, which enable personal fulfillment (Ryan & Deci, 2001). In some cases, activities that would result in "pleasure" do not contribute to an individual's well-being.

It is also important to note that there is a distinction between affect and satisfaction which are often summarized together to define happiness (Ryan & Deci, 2001). Affect is characterized by positive or negative moods which can lead different individuals to construe the same events in either a positive or negative way, respectively. There are downstream implications of this characterization such as individuals with negative affect being less receptive and responsive to feedback and pessimistic of opportunities not available to them (Lyubomirsky & Ross, 1999). Satisfaction manifests itself through the fulfillment of basic psychological needs which can influence growth and positive health outcomes (Ryff et al., 2001).

Adjacent to the concept of eudaimonic well-being are work-related stressors and stress outcomes (Faragher et al., 2004; Sonnentag, 2015). Work-related stressors have been linked to a wide range of affective states at work, specifically along the arousal and pleasure-displeasure dimensions (Russell 1980; Van Katwyk et al., 2000). Work-related stress has been defined in a number of ways such as irritation (Rauschenbach et al., 2013) and work interference with family (Bernas & Major, 2000). High amounts of work-related stress have been associated with

higher levels of family-work conflict and interference with demands and expectations (Bernas & Major, 2000).

Meta-analytic research has included a variety of stressors such as role ambiguity, role conflict, work overload, work-family conflict, job insecurity, and situation constraints in defining work-related stress (Gilboa et al., 2008; Rauschenbach et al., 2013). This study focuses on those work-related events that directly impact stressors and stress-related outcomes. The construct of well-being operationalized as work-related stress in this research follows the model proposed by Ilies et al. (2007) focusing on employees' reactions to work-related events. These events are often goal–or task–focused and can influence the intraindividual processes triggered by employees such as choosing not to engage in social interactions at work. This research examines work-related stress defined as an outcome related to excessive pressure and associated work demands within an organizational context.

Chapter 2
Hypothesis Development

Self-Control and Planning

Theoretical and empirical work suggests that self-control is positively related to planning. In particular, the notion that planning is a mechanism associated with self-control is rooted in self-regulation theory (Parke et al., 2018), where self-regulation entails "steering one's behavior toward a desired end state" (Inzlicht et al., 2021, p. 321). Self-regulation theory suggests that goal pursuit involves several processes including goal setting, planning, striving, and revision. Specifically, self-regulatory processes promote self-management which leads to planning behaviors (Parke et al., 2018; Rich et al., 2010). For instance, to pursue a weight loss goal, an individual may plan to work out on the way home from work, organize healthy meals for the week, and routinely launder workout clothes.

Those higher in self-control are more likely to engage in these self-regulatory mechanisms including planning. For instance, researchers have established that self-control is useful in managing conflicts between competing goals (Fujita, 2011). Part of this conflict management likely involves planning ahead to avoid or minimize tension between goals. In addition, Duckworth et al. (2014) have proposed that several strategies can be used to facilitate self-control. Some of these strategies are more reactive but others–referred to as situation selection and situation modification–involve choosing and modifying situations in a proactive manner to facilitate self-control. Those higher in dispositional self-

control appear to be more likely to engage in these strategies (Fedele et al., 2022; Nielsen et al., 2019), further supporting the notion that self-control may be positively related to planning.

Previous research has also provided support for the link between self-control and planning. Specifically, research has supported the notion that individuals suffering from ego depletion–lower self-control–are less likely to engage in planning tasks (Sjåstad & Baumeister, 2018). In addition, higher self-control has been linked to both more desirable behaviors and fewer undesirable behaviors (de Boer et al., 2011; de Ridder et al., 2011). Given the generally adaptive nature of planning, this suggests self-control may be associated with more planning. Finally, as noted above, several studies have linked self-control with processes and strategies that are similar to planning (e.g., Fedele et al., 2022). Given these conceptual and empirical considerations, the following hypothesis is proposed.

Hypothesis 1: There is a positive relationship between self-control and planning**.**

Planning and Intrusions

There are conceptual and empirical reasons to propose that planning is related to the experience of intrusions. For example, planning before a given workday entails strategically reflecting on what needs to be done and how it should be accomplished. This strategizing then allows for the identification of details such as the type of work (e.g., complexity and duration) and where it will be conducted.

In turn, the contemplated details may have implications for intrusions. For instance, in planning ahead, an employee might recognize the need to work in a quiet place during part of the workday in order to complete a complex task, reducing the likelihood of intrusions. In addition, planning behaviors, such as "to do lists" can keep employees focused on goal or performance progress (Meiran et al., 2000; Parke et al., 2018). This increased focus may then help in dealing with intrusions, where those who have planned ahead and know what they want to accomplish may quickly and easily get back on track following an unexpected intrusion. These ideas support the notion of a relationship between planning and intrusions, indicating that those who engage in planning behavior can mitigate workplace intrusions.

While the direct link between planning and performance metrics is well established, few studies have explored the link between planning and intrusions. Previous research found that individuals will develop strategies for dealing with intrusions such as postponing or prioritizing other activities (Zijlstra et al., 1999). Parke and colleagues (2018) found that time management and contingency planning behaviors resulted in between-person positive effects when confronting intrusions. Based on these considerations, it is expected that as individuals consciously engage in planning behaviors, they may experience fewer workplace intrusions (frequency) and the intrusions they do experience may be less disruptive (severity). Given this, both frequency and severity are examined, and the following hypothesis is proposed.

Hypothesis 2: There is a negative relationship between planning and workplace intrusions.

Intrusions and Outcomes

Intrusions are likely to have implications for both performance and well-being. In particular, intrusions have negative implications for time, attention, and energy that likely then influence performance and well-being. For time, it is clear that intrusions take time to address, reducing the amount of time available for the focal task. In general, less time on a given task is often associated with lower performance. In addition, less time on the intended task means less goal progress, and goal progress has implications for well-being (e.g., Beck et al., 2017; Rosen et al., 2019). A salient example of this would be an individual who planned to work on a project but was interrupted by a colleague regarding a new and unrelated task. The individual will inevitably experience lower performance related progress than if they had not been interrupted (Beck et al., 2017; Parke et al., 2018). For attention, prior work (e.g., Altmann et al., 2014; Monk, 2004) suggests that it becomes increasingly difficult to resume previous tasks once attention has been interrupted. In some cases, the resulting attentional divide affects performance for both the interrupted and interrupting task (Leroy & Glomb, 2018; Leroy & Schmidt, 2016). For energy, some researchers have viewed intrusions through a self-regulatory lens, suggesting that resource depletion may act as an underlying

mechanism of subsequent work-related outcomes (Baumeister & Vohs, 2016; Fonner & Roloff, 2012; Jett & George, 2003).

Recent research has linked workplace intrusions to outcomes such as job satisfaction, performance, and well-being (Moon et al., 2020; Puranik et al., 2021). For example, when examined daily, workplace intrusions have been found to have a negative impact on job satisfaction (Puranik et al., 2021). Empirical evidence also supports the notion that performance will suffer as a result of workplace intrusions (e.g., Altmann et al., 2014; Altmann & Trafton, 2007; Cades et al., 2008; Monk et al., 2008; Puranik et al., 2021). Additionally, empirical research supports the notion that work intrusions can increase daily stress levels and impact job satisfaction (Puranik et al., 2021). As intrusions increase, time becomes a strained resource which can result in a stressful experience (Baethge et al., 2015). Therefore, as the experience of workplace intrusions increases, task performance and well-being will suffer.

Hypothesis 3a: There is a negative relationship between workplace intrusions and task performance.

Hypothesis 3b: There is a positive relationship between workplace intrusions and work-related stress.

Self-Control, Planning, and Intrusions

Given the previous discussion regarding the relationships between dispositional self-control and planning (Hypothesis 1) as well as between planning

and workplace intrusions (Hypothesis 2), it is expected that self-control will be related to intrusions through planning behaviors. Specifically, individuals with higher levels of dispositional self-control are likely to engage in more planning behaviors. These planning behaviors are then likely to mitigate intrusions, leading to an indirect effect of self-control on intrusions through planning.

Hypothesis 4: There is an indirect effect of self-control on workplace intrusions through planning.

Planning, Intrusions, and Outcomes

The previous sections also discussed relationships between planning and workplace intrusions (Hypothesis 2) as well as between workplace intrusions and the outcome variables (performance and work-related stress; Hypothesis 3). In combination, these relationships suggest that planning will be related to the outcome variables through intrusions. Specifically, given that individuals who utilize planning are more likely to think through contingency plans or alternate routes to accomplish their goals (Claessens et al., 2007; Parke et al., 2018), it is expected that individuals who engage in planning behaviors are less likely to suffer the effects of intrusions which ultimately results in higher levels of performance and lower levels of work-related stress.

Hypothesis 5a: There is an indirect effect of planning on task performance through workplace intrusions.

Hypothesis 5b: There is an indirect effect of planning on work-related stress through workplace intrusions.

Self-Control, Planning, Intrusions, and Outcomes

Lastly, given the proposed relationships between dispositional self-control and planning (Hypothesis 1), planning and workplace intrusions (Hypothesis 2), and workplace intrusions and the outcome variables (task performance and work-related stress; Hypothesis 3), it is expected that dispositional self-control will be related to the outcome variables through planning and workplace intrusions. More specifically, individuals with high levels of dispositional self-control will engage in planning behaviors that will mitigate the effects of workplace intrusions and lead to higher levels of performance and lower levels of work-related stress. As mentioned previously, workplace intrusions are often not within an individual's direct control (Jett & George, 2003). Instead, it is suggested that individuals with higher self-control may utilize planning as a form of self-control strategy. In turn, the conscious forethought and deliberate consideration involved in planning may have implications for the experience of intrusions. This may then result in higher levels of performance and lower levels of work-related stress. (A summary of all hypotheses can be found in Appendix A.)

Hypothesis 6a: There is an indirect effect of dispositional self-control on task performance through planning and workplace intrusions.

Hypothesis 6b: There is an indirect effect of dispositional self-control on work-related stress through planning and workplace intrusions.

Chapter 3
Method

Participants

A Monte Carlo power analysis for indirect effects guided by previous empirical research for the variables of interest suggests a minimum sample of 100 participants (Schoemann et al., 2017). Participants were recruited through Amazon's Mechanical Turk (MTurk) and a snowball approach using social media platforms (i.e., LinkedIn, Facebook) to reach this sample size. Prior research has supported the use of both MTurk (Buhrmester et al., 2018; Litman et al., 2017) and snowball sampling (Leighton et al., 2021) as convenient, alternative recruitment strategies for research.

The initial sample consisted of 348 screened individuals who completed the initial survey and responded as working full-time, fluent in the English language, working in the United States, and planning to work their scheduled hours in the upcoming week. Participants were then excluded if they missed any attention checks within the initial survey, reducing the eligible sample size to 253. After the initial survey, 165 of the eligible participants completed at least one daily survey. If participants failed an attention check or responded as not having worked that day, the daily survey response was excluded from analysis. On average, participants completed 3.28 daily surveys, resulting in a total of 541 daily surveys. The 165 participants from the final sample ranged in age from 19 to 66 years old (M =

39.64, *SD* = 10.26) and were 54.5% men. Most participants were white (76.4%) while 9.7% were Asian, 5.5% were Black, 4.8% were Hispanic, and 3.6% were mixed race or preferred not to say. For education, 44.2% of participants had a bachelor's degree, and 27.8% had an advanced degree. Participants were employed in a variety of job families, including 12.7% Business and Financial Operations, 11.5% Education, and 9.7% Computer and Mathematical.

Procedure

The study was conducted in three parts. First, individuals were instructed to complete an initial screening questionnaire (see Appendix B) to determine eligibility for participation. Participants were considered eligible if they (a) were full-time employees, (b) worked in the United States, (c) indicated they were fluent in English, and (d) planned to work their scheduled hours in the upcoming week. Second, eligible participants were asked to complete a dispositional survey assessing self-control, intrinsic motivation, general affect, demographic characteristics, and a few other individual measures (the latter were for exploratory purposes that are outside the scope of the current research). Finally, participants were asked to take a daily survey at the end of their workday for one work week (5 days), distributed every day at a given time (5pm), with a recommendation that the survey should be completed shortly after the end of the participant's workday. The daily survey measured the participant's planning, the frequency and severity of intrusions, task performance, and work-related stress. Before completing each daily survey, participants were asked to indicate if and where (at home or the office) they

worked that particular day. Participants who did not work a full workday were not asked to complete the daily survey.

Measures

This study used short or abbreviated scales because, with the exception of dispositional self-control (and control variables), all variables were measured daily. All scales were self-reported by study participants.

Proposed Control Variables

Between-person control variables were selected according to past research related to planning and workplace intrusions. Specifically, negative affect (NA) and positive affect (PA) have previously been identified as not only a potential confounding variable with performance and intrusions (Parke et al., 2018), but also a source of common method bias (Podsakoff et al., 2003). Varying levels of intrinsic motivation, a dispositional trait, have been linked to performance and well-being outcomes (Bing et al., 2007; Johnson & Saboe, 2011). Therefore, two measures were included in the initial survey to measure general affect (Watson et al., 1988; PA, α = .85; NA, α = .91) and job-related intrinsic motivation (Dysvik & Kuvaas, 2011; α = .92). The full list of items for general affect and intrinsic motivation can be found in Appendices C and D, respectively.

Autonomy was also identified as a potentially relevant variable related to planning (e.g., varying levels of job autonomy may be linked to the amount of planning possible by an individual). Therefore, three dimensions from the Work

Design Questionnaire (Morgeson & Humphrey, 2006) were included to measure autonomy: work scheduling (**α** = .85), decision-making (**α** = .85), and work methods (**α** = .88). The full list of items for autonomy can be found in Appendix E.

Dispositional Self-Control

Dispositional self-control was measured using the Brief Self-Control Scale (Tangney et al., 2004; **α** = .85). The scale instructed participants to respond as they typically are, using ratings of 1 = "Not at all" to 5 = "Very much." Example items include "I am good at resisting temptation"; "I say inappropriate things"; and "I refuse things that are bad for me." A complete list of the items can be found in Appendix F.

Planning

This study measured planning using the previously established scale capturing TMP (**α** = .93) and CP (**α** = .91) behaviors (Parke et al., 2018). This measure included nine items on a scale of 1 = "Not at all" to 5 = "To a very great extent." Example items of the TMP dimension include "I made a list of all of the things I had to do today" and "I prioritized the tasks that I wanted to accomplish today." Example items of the CP dimension include "I thought through possible interruptions or disruptions to my tasks today and planned for them" and "I made my plans flexible today to cover any unforeseen events." A complete list of the items can be found in Appendix G.

Workplace Intrusions

Workplace intrusion frequency was measured using a scale developed by Parke et al. (2018; α = .87) that was derived from Jett and George's (2003) original conceptualization of interruptions. This measure included five items, and asked participants to report how frequently they were interrupted during work hours on a scale of 1 = "Not at all" to 5 = "A great deal." Example items include "I was interrupted by people seeking my help" and "I was interrupted by people who gave or assigned a new task to me." A complete list of the frequency items can be found in Appendix H. Workplace intrusion severity were measured using an adapted scale developed by Horvath et al. (2021; α = .88). This measure included five items, on a scale of 1 = "Strongly disagree" to 5 = "Strongly agree." Example items include "Interruptions required a lot of my time today" and "My day was seriously disrupted by interruptions." A complete list of the severity items can be found in Appendix I.

Work-Related Stress

Work-related stress was measured using the Job Stress Scale (Bernas & Major, 2000; α = .95) adapted to the daily level. The measure assessed feelings of tension, stress, and unwanted pressure related to an individual's job and included 12 items on a scale of 1 = "Strongly disagree" to 5 = "Strongly agree." Example items include "I worked under a great deal of tension today"; "I had too much work

to do today"; and "My working environment was very stressful today." A complete list of the modified items can be found in Appendix J.

Task Performance

Task performance was measured using the role performance scale (Williams & Anderson, 1991) adapted for daily use (Parke et al., 2018; $\alpha = .95$). The measure contained four items on a scale of 1 = "Not at all" to 7 = "To a very great extent." Example items include "I fulfilled all the responsibilities specified in my job description today"; and "I consistently met the formal performance requirements of my job today." A complete list of the items can be found in Appendix K.

Attention Checks

Directed attention checks were included in the initial dispositional survey and the subsequent daily survey based on the recommendations for MTurk participants (Cheung et al., 2017). Participants were asked to select a specific response for a particular item (e.g., "Please select Strongly disagree for this item").

Chapter 4
Results

Preliminary Analysis

Prior to examining the hypotheses, the data were cleaned and screened by examining issues such as attention checks, z-scores, and frequencies. Participants who missed any attention checks in the initial survey were not eligible to participate in the daily surveys. Daily surveys with failed attention checks were not included in the final sample for analysis. Finally, means, standard deviations, reliabilities, and correlations were examined and are presented in Table 1. Intraclass correlations were also examined and are presented in Table 2.

Hypothesis Analyses

A multilevel path analysis with Mplus (Muthén & Muthén, 1998-2017) was used to examine the hypotheses. At the within level, the relationships between planning, intrusions, performance, and stress were specified; at the between-level, these relationships plus those for self-control were specified (see Figure 1). All models were just identified. The hypotheses focus on the between-level and thus results for this level are reported in this section (see Table 3). Hypothesis 1 indicated that there is a positive relationship between self-control and planning. Results showed that dispositional self-control did not significantly predict planning, b = -0.083, p = .423. Thus, Hypothesis 1 was not supported.

Hypothesis 2 indicated that there is a negative relationship between planning and workplace intrusions. Results showed that planning significantly predicted workplace intrusions, $b = 0.190$, $p = .009$, when controlling for dispositional self-control. However, the direction of the relationship was positive and the opposite of what was hypothesized. Thus, Hypothesis 2 was not supported.

Next, the relationships between workplace intrusions and the outcome variables, task performance and work-related stress, were examined. Hypothesis 3a indicated that there is a negative relationship between workplace intrusions and task performance. Results showed that workplace intrusions significantly predicted task performance, $b = -0.367$, $p < .001$, when controlling for dispositional self-control and planning. Thus, Hypothesis 3a was supported. Hypothesis 3b indicated that there is a positive relationship between workplace intrusions and work-related stress. Results showed that workplace intrusions significantly predicted work-related stress, $b = 0.800$, $p < .001$, when controlling for dispositional self-control and planning. Thus, Hypothesis 3b was supported.

After examining the direct relationships, indirect effects were examined with workplace intrusions as the outcome variable. Hypothesis 4 indicated that there is an indirect effect of dispositional self-control on workplace intrusions through planning. However, results showed this was not significant, indirect effect = -0.016, $p = .458$, failing to support Hypothesis 4.

Next, indirect effects were examined with task performance and work-related stress as the outcome variables. Hypothesis 5a indicated that there is an

indirect effect of planning on task performance through workplace intrusions. Results showed this was not significant, indirect effect = -0.070, p = .064, failing to support Hypothesis 5a. Hypothesis 5b indicated that there is an indirect effect of planning on work-related stress through workplace intrusions. Results showed this was significant, indirect effect = 0.152, p = .019. However, the direction of the relationship was positive and the opposite of what was anticipated (due to the unexpected positive relationship between planning and intrusions), failing to support Hypothesis 5b.

Finally, serial mediation analyses were performed using task performance and work-related stress as the outcome variables. Hypothesis 6a indicated that there is an indirect effect of dispositional self-control on task performance through planning and workplace intrusions. Results showed this was not significant, indirect effect = 0.006, p = .457, failing to support Hypothesis 6a. Hypothesis 6b indicated that there is an indirect effect of dispositional self-control on work-related stress through planning and workplace intrusions. Results showed this was not significant, indirect effect = -0.013, p = .461, failing to support Hypothesis 6b.

The hypotheses were also examined while including the control variables mentioned previously (NA, PA, intrinsic motivation, and autonomy; see Table 4). When examining the direct effects for planning, PA, b = 0.298, p = .022, and intrinsic motivation, b = 0.343, p = .008 were identified as significant predictors when controlling for the additional variables. When examining the direct effects for workplace intrusions, dispositional self-control was no longer a significant

predictor, b = -0.145, p = .248, while NA was a significant predictor, b = 0.303, p < .001, when controlling for the additional variables. When examining the direct effects for work-related stress, dispositional self-control was no longer a significant predictor, b = -0.193, p = .051, while PA was a significant predictor, b = -0.164, p = .014, when controlling for the additional variables. No other relationships with the control variables were significant and no other hypothesis-related results changed when including the control variables.

Supplemental Analyses

To further explore and understand the focal relationships, dimensions of planning and workplace intrusions were explored. Planning can be broken down into two subdimensions, time management planning (TMP) and contingency planning (CP). Similarly, workplace intrusions can be separated into two dimensions, frequency and severity. Thus, the hypothesis analyses were repeated for the various combinations of TMP, CP, intrusion frequency, and intrusion severity.

When TMP and intrusion frequency were substituted into the model, dispositional self-control was not a significant predictor of TMP, b = 0.026, p = .801. When holding dispositional self-control constant, TMP was also a not significant predictor of intrusion frequency, b = 0.113, p = .103. Holding dispositional self-control and TMP constant, intrusion frequency revealed a significant negative relationship with performance, b = -0.378, p = .002, and a

significant positive relationship with work-related stress, $b = 0.745$, $p < .001$. However, the analysis did not reveal any significant indirect effects when examining TMP and intrusion frequency.

When TMP and intrusion severity were substituted into the model, dispositional self-control was not a significant predictor of TMP, $b = 0.026$, $p = .801$. When holding dispositional self-control constant, TMP was also not a significant predictor of intrusion severity, $b = 0.137$, $p = .108$. Holding dispositional self-control and TMP constant, intrusion severity revealed a significant negative relationship with performance, $b = -0.254$, $p = .004$, and a significant positive relationship with work-related stress, $b = 0.745$, $p < .001$. However, the analysis did not reveal any significant indirect effects when examining TMP and intrusion severity.

When CP and intrusion frequency were substituted into the model, dispositional self-control was a significant predictor of CP, $b = -0.277$, $p = .041$. However, the direction of this relationship was unexpected. When holding dispositional self-control constant, CP was also a significant predictor of intrusion frequency, $b = 0.187$, $p = .003$. However, again the direction of this relationship was unexpected. Holding dispositional self-control and CP constant, intrusion frequency revealed a significant negative relationship with performance, $b = -0.461$, $p < .001$, and a significant positive relationship with work-related stress, $b = 0.717$, $p < .001$. The analysis also revealed a significant indirect effect of CP on task performance through intrusion frequency, indirect effect = -0.086, $p = .027$,

and a significant indirect effect of CP on work-related stress through intrusion frequency, indirect effect = 0.134, p = .008. Consistent with the original hypothesis findings, these results were the opposite direction of what was anticipated due to the positive relationship between CP and intrusion frequency.

When CP and intrusion severity were substituted into the model, dispositional self-control was a significant predictor of CP, b = -0.277, p = .042. However, the direction of this relationship was unexpected. When holding dispositional self-control constant, CP was also a significant predictor of intrusion severity, b = 0.250, p = .001. Again, the direction of this relationship was unexpected. Holding dispositional self-control and CP constant, intrusion severity revealed a significant negative relationship with performance, b = -0.318, p < .001, and a significant positive relationship with work-related stress, b = 0.740, p < .001. The analysis also revealed a significant indirect effect of CP on task performance through intrusion severity, indirect effect = -0.080, p = .035, and a significant indirect effect of CP on work-related stress through intrusion severity, indirect effect = 0.185, p = .003. Consistent with the original hypothesis findings, these results were the opposite direction of what was anticipated due to the positive relationship between CP and intrusion severity.

In addition, given initial findings suggesting a relationship between self-control and interruptions (Moon et al., 2020), the relationship between dispositional self-control and workplace intrusions was examined to confirm and extend this prior work. Results indicated that dispositional self-control was

a significant predictor of workplace intrusions, holding planning constant, b = -0.439, p < .001. Additionally, the workplace intrusion dimensions of frequency and severity were also examined. Holding planning constant, dispositional self-control was a significant predictor of intrusion frequency, b = -0.419, p < .001, and intrusion severity, b = -0.451, p < .001. All relationships were consistent with the anticipated direction established in prior research (Moon et al., 2020).

Finally, the current study focused on between-level (i.e., between-person) relationships but given that several of the variables were measured daily, there is also an opportunity to examine within-level (i.e., within-person) relationships. Thus, relationships between planning, intrusions, performance, and stress were examined at the within level. Results indicated planning was significantly related to intrusions and task performance, but not work-related stress; intrusions were significantly related to work-related stress, but not task performance. Indirect effects were again examined using planning as the predictor, workplace intrusions as the mediator, and task performance and work-related stress as the outcome variables. Results showed there was not a significant indirect effect of planning on task performance through workplace intrusions, indirect effect = 0.002, p = .800. However, results showed there was a significant indirect effect of planning on work-related stress through workplace intrusions, indirect effect = 0.057, p = .037. Consistent with the between-level findings, the direction of the relationship was again positive and the opposite of what was anticipated due to the unexpected positive relationship between planning and intrusions.

Chapter 5
Discussion

Prior research (e.g., Iqbal & Horvitz, 2007; Leroy & Glomb, 2021; Mark et al., 2008) indicates that interruptions are common and costly for many individuals and organizations. Workplace intrusions, for example, can be disruptive and stressful, having negative implications for well-being and performance outcomes (Puranik et al., 2021). However, less is known about the factors that may lead to interruptions. The current study was designed to explore this, focusing on dispositional self-control as an antecedent and planning as a mechanism to mitigate workplace intrusions. This research focused on two dimensions of planning, TMP and CP, and two dimensions of workplace intrusions, frequency and severity. The goal of this study was to explore the relationships between dispositional self-control and these mechanisms while also investigating potential implications of workplace intrusions in terms of task performance and work-related stress. This study expanded the literature by (a) investigating whether self-control as a dispositional trait predicts interruptions, (b) exploring planning as a mitigation strategy, and (c) differentiating conscious planning from similar, unconscious, constructs (e.g., habits and routines). Overall, the current results may help inform future research and practices related to mitigation strategies for all types of interruptions.

Findings and Implications

Results from this study indicated that dispositional self-control did not predict planning in the hypothesized direction and our hypothesis was not supported. In fact, further investigation indicated that dispositional self-control was a negative predictor of CP specifically. It may be that individuals high in self-control structure their life in a way that does not involve the need to consciously plan on a daily basis. For example, an individual high in self-control who is watching their diet may simply not go to restaurants with unhealthy options, thus removing the need for planning (contingency or otherwise) altogether.

The finding of a non-significant relationship with overall planning and a negative relationship with CP provides indirect support for the notion that dispositional self-control may operate through less conscious/effortful mechanisms. That is, those higher in self-control may tend to experience more positive outcomes not due to more conscious/effortful mechanisms (such as daily planning) but instead due to less conscious/effortful mechanisms (such as habits related to choosing to be in advantageous situations). For instance, individuals high in self-control may set up their lives in such a way to avoid interruptions and distractions and thus they may not need to rely on conscious planning. The question regarding the benefits of less conscious/effortful mechanisms continues to be explored (e.g., Galla & Duckworth, 2015; Ouellette & Wood, 1998; Wood & Neal, 2007), and the current study indirectly contributes to the notion that less conscious/effortful mechanisms are potentially more relevant to self-control.

Findings indicated the relationship between planning and workplace intrusions was in the opposite direction of the initial hypothesis: greater planning was associated with greater intrusions. A possible explanation is that planning behaviors create opportunities for intrusions, especially if other individuals are informed of the plan. For example, if a student knows that a professor is always in their office during a certain time, they might choose to stop by and ask questions outside of office hours. Another explanation could be related to the type of work performed. It is possible that the specific job or tasks involved influence both planning and intrusions, suggesting there is no direct relationship between these variables. For example, particularly complicated tasks may tend to be associated with both more planning and more intrusions, as those facing these tasks try to plan further ahead given the anticipated complications and experience more intrusions as they try to work with others to complete the complicated work. Given the significant findings of intrinsic motivation on planning, it is also possible there are other job-related variables that need to be investigated.

Consistent with previous research (e.g., Moon et al., 2020; Parke et al., 2018; Puranik et al., 2021), the current study supports the notion that intrusions negatively impact performance and well-being outcomes. Current findings also indicated that unexpected workplace intrusions may help to explain the relationship between planning and well-being outcomes. However, the unexpected positive relationship between planning and workplace intrusions does not allow for an intuitive interpretation.

The supplemental analysis indicated that both intrusion frequency and severity may be relevant to workplace outcomes. Thus, the incremental effort needed (i.e., severity) to address an expected intrusion may be just as detrimental to satisfaction and well-being as the number of intrusions experienced (e.g., Fonner & Roloff, 2012; Tams et al., 2015). This is a potentially useful extension of prior research, as the focus is often on frequency.

An interesting, yet intuitive, finding from the analysis indicated that intrinsic motivation appears to play a role in planning but not workplace intrusions. The predictive role of intrinsic motivation and the moderating role of job autonomy should be explored in future research.

Finally, the results provided confirmatory evidence that dispositional self-control predicts interruptions. Consistent with previous research (Moon et al., 2020), the current study supports the notion that dispositional self-control predicts interruption frequency. However, prior research explored only frequency, whereas the current study explored severity as well. Findings indicated that dispositional self-control also predicts interruption severity, suggesting that those higher in self-control experience not only fewer intrusions but also less problematic intrusions. This finding suggests that intrusion severity, in addition to intrusion frequency, should be incorporated into future research.

Limitations and Future Research

This study is not without limitations. First, the final sample may not be representative of the working population. Although previous research supports the use of MTurk (e.g., Buhrmester et al., 2018; Litman et al., 2017), it is possible that the current sample had some unique characteristics (e.g., planning mechanisms or intrusions might have been less applicable to the participants). For example, some participants might not work in a role that allows for significant planning. To address this limitation, other recruitment methods should be considered. Future research should also consider focusing on different job families and the moderating role of job autonomy.

Second, the study exceeded its target sample size, but many participants did not complete all five daily surveys. This is common in experience sampling studies but results in fewer data points overall and might influence the observed pattern of findings. For example, participants who experienced too many workplace intrusions may not have been able to complete the daily survey. Additionally, participants who consistently completed the daily surveys may have high self-control and regularly engage in planning behavior. This idea was explored, and results indicated there was a weak, positive relationship between self-control and the number of daily surveys completed, $r = .168$, $p = .031$.

Third, all measures included in this study were self-report. Additionally, this study intentionally used short or abbreviated scales to mitigate respondent

fatigue. While all short or abbreviated measures were established and validated through previous research, future research should consider additional measures or approaches that can be captured objectively (e.g., performance measures).

Fourth, only one dispositional trait (self-control) was examined in this study. Additional traits should be investigated in future work. Planning behaviors are rooted in self-regulation theory (Claessens et al., 2007). Thus, other dispositional traits related to self-regulation may be worth exploring in more detail. Simply put, individuals high in dispositional self-control might not need to consciously engage in planning behaviors. It is possible individuals high in dispositional self-control organize their day-to-day life in a way that already mitigates workplace intrusions. Thus, other self-regulatory traits that may have connections with planning might be explored in future studies.

Finally, only external interruptions were examined in this research. Therefore, planning as it relates to internal interruptions should be further investigated. Jett and George (2003) outlined internal interruptions such as breaks that might be related to internal planning mechanisms.

Conclusion

This study provides insight into the roles of dispositional self-control and planning in the context of intrusions, performance, and stress. The current findings support and extend prior work in this area and highlight additional directions for future studies. Additional research should continue this line of work, examining

both more conscious/effortful mechanisms and less conscious/effortful mechanisms that help to mitigate workplace stress and improve task performance.

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Figure 1

The proposed conceptual framework.

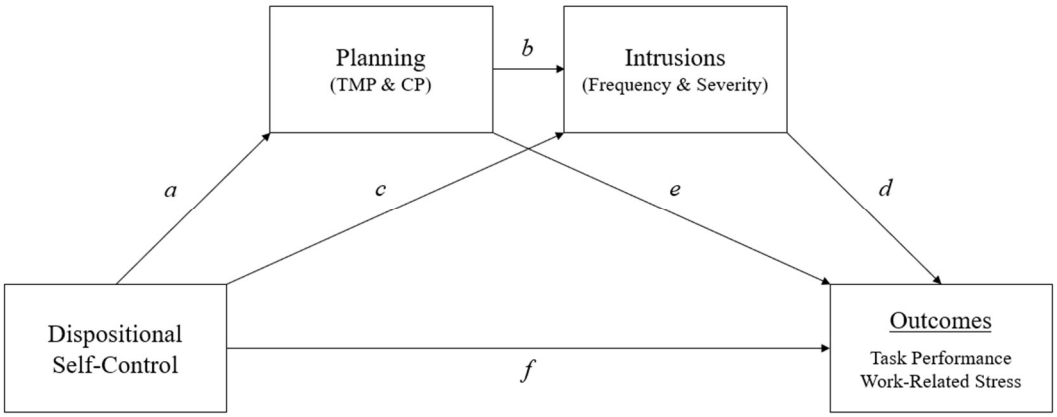

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Table 1

Means, standard deviations, correlations, and reliabilities

Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Self-control	3.46	0.81	(.90)												
2. Planning	4.46	1.06	-.07	(.91)											
3. TMP	4.63	1.13	.02	.92**	(.89)										
4. CP	4.19	1.29	-.18*	.84**	.56**	(.90)									
5. Intrusions	2.62	0.90	-.43**	.22**	.12	.31**	(.90)								
6. Frequency	2.48	0.85	-.43**	.19*	.10	.28**	.94**	(.88)							
7. Severity	2.76	1.06	-.39**	.23**	.12	.32**	.96**	.80**	(.88)						
8. Task Perf.	5.38	0.95	.23**	.24**	.23**	.18*	-.26**	-.27**	-.21**	(.88)					
9. Work Stress	2.72	1.04	-.51**	.27**	.19*	.32**	.75**	.64**	.77**	-.26**	(.92)				
10. Autonomy	3.92	0.88	.18*	.24**	.28**	.11	-.04	-.04	-.03	.02	-.03	(.92)			
11. Intr. Motivation	3.77	0.82	.14	.37**	.34**	.31**	.03	.03	.02	.04	.05	.59**	(.80)		
12. Pos. Affect	3.22	0.78	.26**	.29**	.31**	.19*	-.02	.07	-.09	.09	-.11	.21**	.44**	(.87)	
13. Neg. Affect	2.05	1.08	-.68**	.14	.06	.23**	.49**	.52**	.42**	-.27**	.50**	-.15	.05	.05	(.95)

Note. Alphas are reported in parentheses. TMP = Time Management Planning, CP = Contingency Planning. Between-person results are reported. *$p < .05$. **$p < .01$.

Table 2

Intraclass Correlations (N = 165)

Variable	*ICC*
1. Planning	.66
2. TMP	.60
3. CP	.63
4. Intrusions	.64
5. Frequency	.60
6. Severity	.57
7. Task Performance	.60
8. Work Stress	.68

Note. TMP = Time Management Planning, CP = Contingency Planning.

Table 3

Hypothesis Results

Hyp	DV	IV	Est.	SE	Est./SE	*p*
H1	Planning	Self-Control	-0.083	0.104	-0.801	.423
H2	Intrusions	Planning	0.190	0.073	2.605	.009
		Self-Control	-0.439	0.086	-5.112	.000
H3a	Task Performance	Intrusions	-0.367	0.100	-3.660	.000
		Planning	0.305	0.093	3.294	.001
		Self-Control	0.159	0.094	1.688	.091
H3b	Work Stress	Intrusions	0.800	0.096	8.333	.000
		Planning	0.084	0.077	1.086	.277
		Self-Control	-0.278	0.085	-3.274	.001
	Indirect Effect		Est.	SE	Est./SE	*p*
H4	Self-Control → Planning → Intrusions		-0.016	0.021	-0.742	.458
H5a	Planning → Intrusions → Task Performance		-0.070	0.038	-1.849	.064
H5b	Planning → Intrusions → Work Stress		0.152	0.065	2.354	.019
H6a	Self-Control → Planning → Intrusions → Task Performance		0.006	0.008	0.744	.457
H6b	Self-Control → Planning → Intrusions → Work Stress		-0.013	0.017	-0.737	.461

Table 4

Hypothesis Results (with control variables)

Hyp	DV	IV	Est.	SE	Est./SE	*p*
H1	Planning	Self-Control	-0.218	0.163	-1.337	.181
		Positive Affect	0.298	0.130	2.291	.022
		Negative Affect	0.009	0.121	0.076	.939
		Autonomy	0.064	0.123	0.518	.605
		Intrinsic Motivation	0.343	0.130	2.633	.008
H2	Intrusions	Planning	0.197	0.080	2.472	.013
		Self-Control	-0.145	0.126	-1.156	.248
		Positive Affect	-0.060	0.103	-0.583	.560
		Negative Affect	0.303	0.083	3.664	.000
		Autonomy	0.010	0.112	0.087	.931
		Intrinsic Motivation	-0.054	0.104	-0.523	.601
H3a	Task Performance	Intrusions	-0.326	0.115	-2.844	.004
		Planning	0.341	0.088	3.858	.000
		Self-Control	0.052	0.114	0.453	.651
		Positive Affect	0.404	0.125	0.322	.747

		Negative Affect	-0.164	0.101	-1.625	.104
		Autonomy	-0.092	0.100	-0.918	.359
		Intrinsic Motivation	-0.060	0.123	-0.487	.626
H3b	Work Stress	Intrusions	0.781	0.103	7.587	.000
		Planning	0.101	0.087	1.164	.244
		Self-Control	-0.193	0.099	-1.953	.051
		Positive Affect	-0.164	0.067	-2.467	.014
		Negative Affect	0.067	0.064	1.045	.296
		Autonomy	-0.021	0.078	-0.268	.789
		Intrinsic Motivation	-0.060	0.123	-0.487	.626

	Indirect Effect	Est.	SE	Est./SE	*p*
H4	Self-Control → Planning → Intrusions	-0.043	0.038	-1.134	.257
H5a	Planning → Intrusions → Task Performance	-0.064	0.040	-1.610	.107
H5b	Planning → Intrusions → Work Stress	0.154	0.069	2.210	.027
H6a	Self-Control → Planning → Intrusions → Task Performance	0.014	0.014	1.024	.306
H6b	Self-Control → Planning → Intrusions → Work Stress	-0.033	0.030	-1.107	.268

APPENDIX A

SUMMARY OF HYPOTHESES

Self-Control and Planning

Hypothesis 1: There is a positive relationship between self-control and planning.

Planning and Intrusions

Hypothesis 2: There is a negative relationship between planning and workplace intrusions.

Intrusions and Outcomes

Hypothesis 3a: There is a negative relationship between workplace intrusions and task performance.

Hypothesis 3b: There is a positive relationship between workplace intrusions and work-related stress.

Self-Control, Planning, and Intrusions

Hypothesis 4: There is an indirect effect of self-control on workplace intrusions through planning.

Planning, Intrusions, and Outcomes

Hypothesis 5a: There is an indirect effect of planning on task performance through workplace intrusions.

Hypothesis 5b: There is an indirect effect of planning on work-related stress through workplace intrusions.

Self-Control, Planning, Intrusions, and Outcomes

Hypothesis 6a: There is an indirect effect of dispositional self-control on task performance through planning and workplace intrusions.

Hypothesis 6b: There is an indirect effect of dispositional self-control on work-related stress through planning and workplace intrusions.

APPENDIX B

INITIAL SCREENING QUESTIONS

1. Which of the following best describes your race/ethnicity?
2. Are you fluent in the English language?
3. What is your age?
4. What is your gender?
5. Are you currently working?
6. What is the title of your current job? (Select from ONET-SOC dropdown)
7. For how long have you worked at this job?
8. Do you have autonomy (i.e. control) over your work day?
9. How many days of the week do you work?
10. How many hours are you scheduled to work per week?
11. If you are working in the family business, is this business incorporated?
12. Indicate the highest level of education that you have completed
13. What is/was your current or most recent annual pre-tax salary (including bonuses and other forms of cash compensation)?

APPENDIX C

GENERAL AFFECT SCALE

This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you generally feel this way, that is, how you feel on average. Use the following scale to record your answers.

_____ interested	_____ irritable
_____ distressed	_____ alert
_____ excited	_____ ashamed
_____ upset	_____ inspired
_____ strong	_____ nervous
_____ guilty	_____ determined
_____ scared	_____ attentive
_____ hostile	_____ jittery
_____ enthusiastic	_____active
_____ proud	_____afraid

Note: The rating scale ranged from (1) Very slightly or not at all to (5) Extremely.

APPENDIX D

INTRINSIC MOTIVATION SCALE

1. The tasks I do are a driving force in my job.
2. My job is so interesting that it is a motivation in itself.
3. My job is meaningful.
4. The tasks that I do at work are enjoyable.
5. Sometimes I become so inspired by my job that I almost forget everything else around me.

Note: The rating scale ranged from (1) Strongly disagree to (5) Strongly agree.

APPENDIX E

AUTONOMY SCALE

Work Scheduling Autonomy

1. The job allows me to make my own decisions about how to schedule my work.
2. The job allows me to decide on the order in which things are done on the job.
3. The job allows me to plan how I do my work.

Decision-Making Autonomy

4. The job gives me a chance to use my personal initiative or judgment in carrying out the work.
5. The job allows me to make a lot of decisions on my own.
6. The job provides me with significant autonomy in making decisions.

Work Methods Autonomy

7. The job allows me to make decisions about what methods I use to complete my work.
8. The job gives me considerable opportunity for independence and freedom in how I do the work.
9. The job allows me to decide on my own how to go about doing my work.

Note: The rating scale ranged from (1) Strongly disagree to (5) Strongly agree.

APPENDIX F

SELF-CONTROL SCALE

Using the scale provided, please indicate how much each of the following statements reflects how you typically are.

1. I am good at resisting temptation.
2. I have a hard time breaking bad habits. (R)
3. I am lazy. (R)
4. I say inappropriate things. (R)
5. I do certain things that are bad for me, if they are fun. (R)
6. I refuse things that are bad for me.
7. I wish I had more self-discipline. (R)
8. People would say that I have iron self- discipline.
9. Pleasure and fun sometimes keep me from getting work done. (R)
10. I have trouble concentrating. (R)
11. I am able to work effectively toward long-term goals.
12. Sometimes I can't stop myself from doing something, even if I know it is wrong. (R)
13. I often act without thinking through all the alternatives. (R)

Note: The rating scale ranged from (1) Not at all to (5) Very much.

(R) Reversed Items

APPENDIX G

PLANNING ITEMS

1. I made a list of all the things I had to do today.
2. I determined the tasks I wanted to accomplish today.
3. I set priorities for my tasks today.
4. I prioritized the tasks I wanted to accomplish today.
5. I made a schedule of the activities I had to do today.
6. I decided how much time to spend on each of my tasks today.
7. I thought through possible interruptions or disruptions to my tasks today, and planned for them.
8. I developed alternative courses of action in case my tasks are interrupted or disrupted today.
9. I made my plans flexible today to cover any unforeseen events.

Note: The rating scale ranged from (1) Not at all to (7) To a very great extent.

APPENDIX H

WORKPLACE INTRUSION FREQUENCY ITEMS

1. I was interrupted by people seeking information from me.
2. I was interrupted by people seeking my help.
3. I was interrupted by people who gave or assigned a new task to me.
4. I was interrupted by people who provided me with work-related updates or information.
5. I was interrupted by people for non-work related matters (e.g., socializing).

Note: The rating scale ranged from (1) Not at all to (5) Most of the time.

APPENDIX I

WORKPLACE INTRUSION SEVERITY ITEMS

1. Interruptions required a lot of my time today.
2. Interruptions required a lot of my attention today.
3. My day was seriously disrupted by interruptions.
4. I had to put a lot of effort into interruptions today.
5. Interruptions took a lot of energy to take care of today.

Note: The rating scale ranged from (1) Strongly disagree to (5) Strongly agree.

APPENDIX J

WORK-RELATED STRESS ITEMS

1. I worked under a great deal of tension today.
2. I had too much work to do today.
3. My working environment was very stressful today.
4. I feel I cannot work long enough or hard enough.
5. I felt stressed by my job today.
6. I felt as if I would never get all my work done today.
7. It made me tense thinking about my job today.
8. While at work today, I felt there was too much pressure to get things done.
9. I had unwanted stress as a result of my present job today.
10. I felt "burned-out" after a full day of work today.
11. The tension I felt at work today makes me unhappy.
12. My job was stressful today.

Note: The rating scale ranged from (1) Strongly disagree to (5) Strongly Agree.

APPENDIX K

TASK PERFORMANCE ITEMS

1. I fulfilled all the responsibilities specified in my job description today.
2. I consistently met the formal performance requirements of my job today.
3. I conscientiously performed tasks that were expected of me today.
4. I adequately completed all of my assigned duties today.

Note: The rating scale ranged from (1) Not at all to (7) To a very great extent.