Too Proactive to Switch Off:

When Taking Charge Drains Resources and Impairs Detachment

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Abstract

Although proactive behavior is an important determinant of individual work performance, its consequences for employee well-being and other personal outcomes have been largely neglected. In this study, we adopted a within-person perspective to investigate how taking charge behavior (a form of proactivity) affects employees' life outside of work by examining when and how it impacts on their ability to detach and recover from work. Drawing upon resource drain theory, we hypothesized that taking charge has the potential to undermine the process of detachment and recovery from work by draining personal resources. However, based on self-determination theory, we identified autonomous motivation as an essential boundary condition, such that the negative effects of taking charge on detachment and recovery via resource drain occur only when daily autonomous motivation is low. We tested this model on a sample of 77 managers, who provided daily survey data three times per day over five consecutive working days. Our analyses showed that daily taking charge behavior was negatively related to detachment in the evening, via resource drain, only on days in which people reported low autonomous motivation at work. However, this conditional effect of taking charge did not reach through to next morning recovery. No negative effects of daily taking charge on detachment were observed when people had high autonomous motivation. Overall, these findings suggest that, under some motivational conditions, proactivity can consume resources and interfere with the process of detachment. We offer practical advice for how organizations might encourage proactive behavior whilst minimizing its drawbacks.

Keywords:

Proactive behavior; psychological detachment; resource drain; work motivation; taking charge.

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In modern organizations, reacting and adapting to changes in the workplace no longer suffices. Increasingly, to be effective at work, employees need to self-start change; that is, to take charge and make things happen (Crant, 2000; Parker, 2000). Such behavior is referred to as proactive work behavior, or "self-initiated and future-oriented actions that aim to change and improve the situation or oneself" (Parker et al., 2006, p. 636). Meta-analyses and other research studies indicate that employee proactivity is associated with a range of desirable organizational outcomes, most notably job performance (Bindl & Parker, 2011; Thomas et al., 2010; Tornau & Frese, 2013), career success (Blickle et al., 2009; Vos et al., 2009), and innovation (Kickul & Gundry, 2002).

Although a multitude of studies focused on the antecedents of proactivity (for a review, see Parker & Bindl, 2017), the personal consequences of proactivity have received less empirical attention. Furthermore, the research that has considered the individual outcomes of proactivity has tended to focus mainly on its desirable consequences, such as career success (Blickle et al., 2009; Vos et al., 2009) and psychological needs satisfaction (Strauss & Parker, 2014). Only recently researchers started to consider some of the undesirable well-being consequences of proactive behavior (Cangiano et al., 2019; Lin & Johnson, 2015; Pingel et al., 2019; Zacher et al., 2019). Nonetheless, there remains a limited understanding of the potential personal costs involved in behaving proactively. And yet, there are several reasons to suggest that engaging in proactive behavior at work can be demanding for individuals.

First, due to its anticipatory, self-initiated and self-directed nature, behaving proactively requires a great deal of resources, with the exertion of considerable energy, time and attention required for planning and enacting (Bindl et al., 2012; Grant & Ashford, 2008).

Second, because proactivity often entails challenging the status quo, it is not always valued by others, including supervisors. Scholars have speculated how proactivity can be met with resistance, or even result in the initiator being ostracized by the organization (Bateman & Crant, 1993; Bolino et al., 2010; Grant et al., 2009). Third, researchers have pointed out that proactivity might be a source of physiological stress for employees (Bolino et al., 2010). This idea was supported in a study by Fay and Hüttges (2017), where daily proactive behavior was associated with cortisol levels (a physiological indicator of stress), suggesting that proactivity may involve negative consequences for individuals, at least in the short-term. Fourth, there is evidence on similar, yet distinct, constructs that engaging in non-core tasks can sometimes have negative effects. For instance, Bolino and Turnley (2005) showed that high levels of organizational citizenship behavior at work can result in role overload, job stress, and work-family conflict.

Altogether, there is considerable reason to suggest that engaging in proactive behavior might take a toll on the initiators, although there are few empirical studies showing exactly what personal costs, if any, are incurred. In 2019, Pingel et al. showed that externally motivated proactivity resulted in greater counterproductive behavior via increased irritability and rumination about work. In a similar vein, Strauss et al. (2017) found significant associations between supervisor ratings of proactivity and strain among employees with low autonomous and high controlled motivation. Other studies have demonstrated that proactivity may have simultaneously beneficial or detrimental consequences, depending on the circumstances. For example, drawing of self-regulatory focus and ego depletion theories, Lin and Johnson (2015) showed across two studies that while promotive forms of voice were negatively related to depletion, whereas prohibitive voice positively related to regulatory depletion. More recently, Cangiano et al. (2019) examined the positive and negative effects

of daily proactivity on employee well-being, highlighting the moderating role of punitive supervision in shaping the impact of proactive behavior on anxiety.

In this study, we aim to identify how being proactive impacts on employees' ability to detach and recover from their work (Sonnentag et al., 2010; Sonnentag, Mojza, et al., 2008). Psychological detachment refers to "an individual's sense of being away from the work situation" (Etzion et al., 1998, p. 579), which entails that one is not thinking about job-related issues during off-work time. Detaching from work-related thoughts is a crucial determinant of recovery, defined as the process of alleviating the negative effects of work demands (Sonnentag, Binnewies, et al., 2008; Sonnentag, Mojza, et al., 2008). Drawing upon Edwards and Rothbard's (2000) resource drain theory, we explain how being proactive can interfere with the process of detachment by creating tension between the work and life domains. Specifically, we propose that engaging in proactive behavior can drain employees' resources, thereby hindering employees' opportunities to detach from work and recover successfully from work demands.

We go further to identify a key moderator of this process. Although Fay and Hüttges (2017) observed in their study a significant effect of proactive behavior on cortisol levels, they failed to observe any significant direct effects on subjective well-being (i.e. bedtime fatigue), which seems to suggests the possibility that the strength of this relationship is influenced by other unaccounted factors (Strauss et al., 2017). Drawing on self-determination theory, we propose that one's work motivation plays an essential role, not only in driving proactive behavior (Parker et al., 2010), but also in shaping its outcomes (Cangiano & Parker, 2016; Strauss & Parker, 2014). This idea is corroborated in a recent study by Strauss et al. (2017) examining the circumstances under which proactivity generates job strain. Their findings showed that supervisor-rated proactive behavior was associated with greater job strain only when employees' autonomous motivation was low and controlled motivation was

high, suggesting that proactive efforts exerted under autonomous motivation are less likely to result in resource loss. Along similar lines, Pingel et al. (2019) found that proactive behavior increased employee withdrawal only among employees whose proactivity was fueled by extrinsic reasons. Therefore, we identify autonomous motivation as a crucial boundary condition shaping the effects of proactivity on detachment and recovery: when autonomous motivation is low, we expect that more resources will be depleted when engaging in taking charge (Ryan & Deci, 2008), draining resources away from the non-work domain and undermining the recovery process. In contrast, we suggest that on days in which employees experience high levels of autonomous motivation in their work, any resources consumed in the process of proactivity (i.e., effort, time and attention) will be compensated for by the energizing effects of autonomous motivation, thereby resulting in no net interference between home and work, and therefore no negative effect on detachment and recovery (Cangiano & Parker, 2016). This process occurs because individuals expending effort for autonomous reasons experience greater energy and vitality (Ryan & Deci, 2008). When personal strivings at work are less self-determined, this energy and vitality is not released. Figure 1 shows the overall conceptual model of this paper, which we elaborate shortly.

Insert Figure 1 about here

A key contribution of our study is that we integrate self-determination theory (Ryan & Deci, 2000) with resource drain theory (Rothbard, 2001) to examine the interactive effects of proactive behavior and motivation on the non-work domain. These theories have fundamentally different views on resource availability: according to resource drain theory, personal resources such as time, attention and energy are finite and once they are expended in one domain they become unavailable for other domains (Edwards & Rothbard, 2000). On the other hand, self-determination theory posits that engaging in autonomously motivated

activities can help generating positive energy that can subsequently spill over into other aspects of life (Grawitch et al., 2010; Quinn et al., 2012; Ryan & Deci, 2008). We bring together these theoretical perspectives to explain *when* and *how* taking charge behavior undermines the detachment and recovery process, and when it does not. Thus, we argue that - when employees experience high autonomous motivation at work - the resource-intensive nature of taking charge is counteracted by the energizing effects of autonomous motivation, rendering less likely any negative repercussions on the non-work domain in terms of personal resources. However, when autonomous motivation is low, the resources exerted to engage in taking charge behavior are greater and hence more depleting of those available in the non-work domain, which in turn undermines employees' ability to fully engage in activities that promote psychological detachment and facilitate the recovery process (Sonnentag, 2018). This theorizing helps to explain why, even though there seems to be a link between an individual's proactive behavior and his/her career success (Blickle et al., 2009; Vos et al., 2009), which implies overall long term positive personal consequences of proactive behavior, proactive behavior may yield vastly different consequences at the episodic level (Cangiano & Parker, 2016); sometimes requiring considerable resource expenditures, creating additional stress, and even exposing the employee to blame and criticism from others (Bolino et al., 2010), whereas in other situations it might generate feelings of competence and increase engagement (Cangiano et al., 2019; Strauss & Parker, 2014), and therefore not result in depletion in other life domains.

A second key contribution of our study is that we focus on daily within-person dynamics that are not captured with cross-sectional research designs or with longer term longitudinal studies spanning several months (Bolger & Laurenceau, 2013; Ohly et al., 2010). Although between-person studies have suggested the moderating role of autonomous motivation (Strauss et al., 2017; Pingel et al., 2019) in shaping the effects of proactive

behavior, it is important to assess whether these dynamics occur at the within-person level for several reasons. First, our focus is on resource drain as a key mechanism, which is distinct from the mechanism theorized in the between-person studies that focus on this interaction. The latter studies have theorized that proactivity creates strain (Strauss et al., 2017), irritability and rumination (Pingel et al., 2019), whereas we theorize that – under certain conditions - proactivity drains resources away from the non-work domain, undermining the daily process of detachment and recovery from work. It is important, therefore, that we test this distinct theorized process. Second, even though our predicted interaction effect is similar to that observed at the between person-level (albeit via different mechanisms), this effect cannot simply be assumed. Other studies in the domain of proactive behavior have shown distinct effects on the same outcome at different levels. For instance, Zacher et al. (2019) showed that whilst employee proactivity was associated with greater positive affect 6 months later, the relationship was opposite at the within-level (increases in proactivity negatively predicted change in positive affect over time). Similarly, Fay and Hüttges (2017) found that, although daily proactivity was associated with greater cortisol levels (a physiological indicator of strain) at the within level, the relationship was opposite at the between level: proactive employees had lower levels of cortisol in general compared to less proactive workers. One explanation offered by Fay and Hüttges is that the differential relationship occurs because long-term negative consequences of proactivity may be offset by sufficient recovery. Therefore, we cannot assume that the interaction effects between proactive behavior and motivation at the between person level will apply at the within-person level. By examining how proactivity influences the daily detachment and recovery process, our study not only provides a constructive replication of previous established findings, but also complements our current knowledge by theorizing different mechanisms through which proactivity influences employee well-being.

Our study has some important features that help us to test the proposed conceptual model. First, we focus on taking charge behaviors because this form of proactivity is likely to be reasonably consuming of resources. Proactive behaviors include a wide array of constructs that share the same core characteristics (anticipatory, future-focused, and self-initiated) but may have different consequences for individuals. For example, an employee trying to implement a new administrative procedure, which could result in greater organizational profits, will likely have to undertake extra work to design and test this initiative. Conversely, proactive behaviors like voice may require significantly less time and effort. We contend that the more proactive behaviors require resources, the more they have the potential to negatively impact on one's life outside of work. We argue that taking charge is a type of proactivity that requires a reasonable deal of resources to be carried out successfully, which is therefore particularly suited to our research question.

Second, we focus on the daily consequences of proactive behavior on the detachment and recovery process. Even though there are undoubtedly strong dispositional differences, we suggest that individuals' proactive efforts can indeed vary on a daily basis. For example, an individual introducing a new work method might devote some time to this goal on a given day, but then not return to this goal until a few days later, and then revisit it again two weeks later. Thus, even proactive goals that require sustained effort and commitment over a long time period are likely to vary daily. By investigating proactive behavior at the day level, we are able to assess these daily dynamic effects of proactive behavior, as well as the mechanisms that underpin these effects. Over time, employees experiencing poor detachment and recovery as a result of proactivity may experience greater depression, strain and health problems (Amstad et al., 2011; Wendsche & Lohmann-Haislah, 2017), which would likely predict a decline in future proactive behavior.

We elaborate the specific hypotheses next.

Taking charge behavior: A resource drain perspective

Based on resource drain theory, we propose that taking charge can result in resource drain when one's autonomous motivation is low. According to resource drain theory, one's personal resources are finite and, when expended in one domain, they become unavailable in another domain (Edwards & Rothbard, 2000). Although we maintain that taking charge behavior has indeed the potential to enhance resources for employees (Cangiano et al., 2019; Strauss & Parker, 2014), we propose that, when autonomous motivation is low, its resource-intensive nature represents a potential risk for employees in terms of strain and overload (Munyon et al., 2010; Pingel et al., 2019; Strauss et al., 2017), which we suggest influences employees' detachment and recovery outside of work.

The idea that work experiences influence employees after they leave the workplace is not new in the literature (Grzywacz & Marks, 2000; Sonnentag & Binnewies, 2013; Wagner et al., 2014). Role pressures brought on by work-related activities can make it difficult to attend to activities outside the work domain (Greenhaus & Beutell, 1985; Siegel et al., 2005). According to resource drain theory, this conflict occurs because the work domain drains resources away from the non-work domain. Meta-analytic reviews suggest that employees who have higher psychological demands associated with one's role are more likely to report conflict between the work and non-work domain than those experiencing lower stress at work (Byron, 2005). A similar pattern of findings emerged in a recent experience sampling study with bus drivers, where daily emotional labor (a resource-intensive form of affective regulation) was associated with increased emotional exhaustion, work-to-family conflict, and insomnia (Wagner et al., 2014). This is because being in the state of resource loss can make it difficult for employees to fully engage in the life and family roles, as they are arguably unlikely to have sufficient mental and physical energy to dedicate time and effort to family, friends and personal hobbies (Edwards & Rothbard, 2000; Sonnentag, 2018).

Taking charge is an especially resource-intensive behavior compared to other forms of proactivity: the process of bring about change in work procedures may require more resources to be carried out successfully. By way of comparison, voicing out one's concerns during a meeting would be a much less demanding form of proactivity from a resource perspective.

Moderating role of autonomous motivation

We propose that the extent to which daily taking charge efforts consume resources is dependent upon what motivates employees in their work during the day. Autonomous motivation refers to behavior initiated and governed by the self. In other words, autonomous motivation occurs when an individual engages in an activity for the sake of personal interest and/or enjoyment (Ryan & Deci, 2000; Shahar et al., 2006). Dozens of studies have shown that autonomously motivated behavior does not involve effortful volition, which is less likely to impact on one's resources (see Ryan & Deci, 2008). Drawing upon self-determination theory (Deci & Ryan, 2000; Ryan & Deci, 2000), we argue that there will be a negative effect of taking charge on resources, and hence on psychological detachment only when the employee's autonomous motivation is low.

Experiencing a sense of self-determination at work has been shown to increase feelings of vitality and happiness among employees (Nix et al., 1999). We propose that, on days in which workers experience a strong sense of autonomous motivation, the resource-intensive nature of proactivity is compensated for by a sense of vitality, acting as a buffer against the potentially negative effects of proactivity on resources. This is because the exertion of effort is experienced as less depleting when people are autonomously motivated (Trépanier et al., 2013). Conversely, when individuals experience low self-determination at work, they are more likely to believe they are restricted from exerting control in pursuit of their goals (Deci & Ryan, 2000). Under these conditions, the compensating effect of vitality

is less likely to occur, increasing the likelihood that taking charge efforts will translate into resource drains (Cangiano & Parker, 2016).

The idea that autonomously motivated work can buffer against the negative effects of certain work circumstances is not new in the literature. For example, Trépanier et al. (2013) showed across two studies that self-determined employees displayed lower distress in the presence of demands compared to less self-determined employees, providing support for a compensating role of autonomous motivation. With regards to proactivity, Strauss et al. (2017) found that supervisor ratings of proactive behavior were less likely to be associated with job strain among employees with high autonomous motivation, consistent with the view that experiencing a sense of volition at work might protect against the depleting effect of resource-intensive behavior.

Hence, when autonomous motivation is high, any resources consumed in the process of taking charge will be compensated for by the energizing effect of autonomous motivation. Conversely, when autonomous motivation is low, daily proactivity will drain employees' resources and negatively impact on their lives outside of work. When resources are drained, the reduced availability of energy, time and attention will impact on employees' likelihood to actively engage in activities and interpersonal interactions in the personal-life domain, thus causing resource drain (Greenhaus & Beutell, 1985; Rothbard, 2001). Therefore:

Hypothesis 1. Under the condition of low autonomous motivation, daily taking charge is associated with higher daily resource drain.

The effect of resource drain on psychological detachment from work

When individuals are unable to fully engage in their lives outside of work, there are significantly fewer opportunities for them to unwind and detach from work (Sonnentag, Mojza, et al., 2008). Psychological detachment refers to "a state in which people mentally disconnect from work and do not think about job-related issues when they are away from

their job" (Sonnentag, 2012, p. 114). Several studies have shown that employees who manage to detach from work experience less psychological strain and physical symptoms, and ultimately are more likely to feel recovered and perform well during the following workday (Sonnentag, 2012; Sonnentag & Binnewies, 2013; Sonnentag et al., 2010; Sonnentag, Mojza, et al., 2008). Previous research has found that receiving support from family and friends can facilitate the process of detachment (Shimazu et al., 2014). However, when employees' resources are drained, the process of detachment should be less likely to occur. In general, people with high levels of demands in their work roles tend to have more difficulties to effectively engage in their life outside of work, through which they could detach from work and replenish their resources (Sonnentag & Fritz, 2007). In line with resource drain theory (Edwards & Rothbard, 2000; Germeys & De, 2016), when personal resources are expended in the work domain, they are no longer available for other domains. The lack of resources is likely to prevent individuals from fully engaging with other personal identities that may provide opportunities to forget about work. For instance, by engaging in off-work activities that promote a sense of mastery (e.g. learning a new hobby). Although some passive and low-effort activities may still be beneficial for detachment, it has been suggested that various recovery activities conducive to detachment are not necessarily effortless. Instead, they require some sort of resource investment in terms of time, attention and energy (Sonnentag & Fritz, 2007). For instance, to exercise after work (an activity beneficial for recovery), an individual should not only have sufficient time, but also exert some effort to drive to the gym and override the impulse to spend a lazy evening at home watching TV. This phenomenon is known as the 'recovery paradox' (Sonnentag, 2018): even though the depletion of resources increases the need for recovery and exacerbates the importance of recuperating energies, people tend to detach less from their jobs when their resources are drained (Wendsche & Lohmann-Haislah, 2017). Thus, when resources are drained in the work domain, they are

likely to negatively impact on individuals by reducing the likelihood of engaging in activities conducive to psychological detachment. In summary, we hypothesize the following:

Hypothesis 2. Daily resource drain is negatively associated with daily psychological detachment.

A moderated mediation effect

Building on resource drain theory (Edwards & Rothbard, 2000) and self-determination theory (Ryan & Deci, 2000, 2008), hypothesis 1 proposes that taking charge is associated with resource drain when employees experience low autonomous motivation. Hypothesis 2 proposes that resource drain is negatively related to psychological detachment in the evening, consistent with the 'recovery paradox' (Sonnentag, 2018). Together, these hypotheses suggest a moderated-mediation model in which the effect of taking charge on detachment via resource drain is moderated by autonomous motivation.

In other words, when employees experience a low sense of autonomous motivation, engaging in taking charge behaviors at work drains resources and is detrimental to the process of detachment.

Therefore:

Hypothesis 3. Daily autonomous motivation moderates the indirect effect of daily taking charge on psychological detachment through resource drain, such that resource drain mediates the indirect effect only when employees report low levels of autonomous motivation.

Indirect effects of daily taking charge on next morning recovery

In organizational psychology the term recovery is commonly referred to as the process of "undoing" the strain caused by stressors and demands at work (Sonnentag & Fritz, 2015). Studies have shown that being unable to rest and recover from work may yield serious negative consequences for employees' well-being and mental health (e.g., Fritz & Sonnentag,

2005; Geurts & Sonnentag, 2006). However, successful recovery is not merely a matter of amount of time available off-work; a pivotal role in the process of recovery is played by the quality of the recovery activities that individuals engage in (Sonnentag & Bayer, 2005; Sonnentag & Fritz, 2015; Westman & Eden, 1997). In this vein, psychological detachment from work is a core pillar of the recovery process. When individuals experience not only a physical, but also a mental sense of "being away" from the workplace in their off-work time, they are more likely to feel rested the following day at work (Sonnentag, 2012; Sonnentag et al., 2010; Sonnentag & Fritz, 2015; Sonnentag & Kruel, 2006), which in turn predict engagement and work performance (Binnewies et al., 2010; Fritz & Sonnentag, 2005; Sonnentag, 2003).

In the previous sections, we integrated self-determination theory with resource drain theory to hypothesize an indirect effect of taking charge on detachment moderated by autonomous motivation. Consistent with previous research showing that detachment is an important facilitator of recovery, we seek to show that when taking charge drains resources and undermines detachment, these effects stretch out to the next day and undermine recovery (Sonnentag, 2003). We therefore hypothesize that the conditional negative indirect effect of taking charge will carry on to next morning recovery through detachment:

> *Hypothesis 4. Daily autonomous motivation moderates the serial indirect effect of daily taking charge on next morning recovery via detachment and resource drain, such that the indirect effect of daily taking charge is significant only when employees report low levels of autonomous motivation.*

Methods

Sample

The sample consisted of 77 Australian managers employed in a range of industries. Managers are particularly suited to proactivity research because they normally possess a considerable degree of autonomy in their daily work, which is an important facilitator of proactive work behavior (Griffin et al., 2007; Parker & Collins, 2010). At the time of the study, all participants were enrolled in a part-time Master in Business Administration at the University of Western Australia. Participants' mean age was 34.6 years (*SD* = 6.4) and about 54% were males. On average, organizational tenure was 4.21 years (*SD* = 4.05 years) and participants had 2.6 years of experience in their current job (*SD* = 2.6).

After agreeing to participate in the study, participants were invited to a short briefing session, wherein they received detailed information about the study purpose and the participation process. The diary data was collected using a smartphone survey application (iSurvey & droidSurvey), which was installed on participants' smartphones or tablets during the study briefing. During the briefing session, managers were also given information on how to download the daily surveys on their smartphones and when to complete them. Even though the diary activity was designed to be part of a unit on self-development, participation was voluntary and they could withdraw from the study at any point in time without notice.

The study consisted of two stages. In stage 1, we asked participants to complete a 10-minute online survey before taking part in the dairy activity. This survey measured participants' demographics and general information about their job. In stage 2, we asked participants to complete three daily surveys for a minimum of 5 consecutive working days. The first survey was completed in the morning, before going to work (morning survey). A second survey was completed before the end of the workday (end-of-workday survey). The third daily survey was to be completed within an hour before going to bed (evening survey). Each daily survey took approximately two minutes to complete. In return for their participation in the study, participants were invited to attend a dedicated one-hour workshop

on employee well-being and recovery from work stress, in which they received a personalized feedback report based on the surveys.

Measures

To keep length of the daily survey to a minimum, we used a subset of 2-3 items from each scale (Ohly et al., 2010). All items (except for demographics) were answered on 5-point Likert scales.

Taking charge. We assessed daily taking charge behaviors in the end-of-workday survey using the following two items "Today, I tried to bring about improved procedures in my workplace" and "Today, I tried to institute work methods that are more effective". The response scale ranged from 1 (strongly disagree) to 5 (strongly agree). The items were adapted from Parker and Collins (2010). Inter-item correlations across occasions ranged from .55 to .92 (average .67).

Autonomous motivation. Participants reported their autonomous motivation by responding to the following two items capturing intrinsic and identified motivation, adapted from Gagné et al. (2015): "Today, I worked hard because the tasks I did were enjoyable" and "Today, I put effort into my work because I considered it personally important", using a 5-point Likert-type scale anchored at 1 = strongly disagree and 5 = strongly agree. Autonomous motivation was measured in the end-of-workday survey. Inter-item correlations ranged from .35 to .77 (average .51)

Resource drain. We assessed resource drain with three items adapted from Kopelman et al. (1983). The items are: "Today, on the job, I had so much work to do that it took away from my personal interests", "Today, right after work, I felt too tired to do some of the things I would have liked to do here at home" and "Today my work has taken up time that I would have liked to spend with family/friends". Resource drain was measured in the evening survey

on a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Inter-item correlations ranged from .66 to .86 (average .73)

Psychological detachment. We assessed psychological detachment from work in the evening survey with the following two items adapted from Sonnentag, Mojza, et al. (2008): "This evening, I did not think about work at all" and "This evening, I gained distance from my job requirements" on a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Cronbach's alphas across all days ranged from .37 to .88 (average .59).

Recovery. To assess participants' recovery from work stress, we developed the following item: "How recovered do you feel from yesterday's work?". The response scale ranged from 1 (not recovered at all) to 5 (extremely recovered). Recovery was measured in the morning survey. To assess the convergent validity of this item, we examined its correlations with similar constructs measured in the same survey: our analyses showed that the single item measure of next morning recovery was positively related with sleep quantity ($r = .31$, $p < .001$) and sleep quality ($r = .58$, $p < .001$) and negatively associated with morning fatigue[1] ($r = -.58$, $p < .001$), providing some evidence for construct validity and alleviating concerns associated with the use of single items (Fisher et al., 2016; Fuchs & Diamantopoulos, 2009).

Control variables. Previous research suggests that workload is positively associated with proactive behavior, even though evidence is somewhat mixed (Fay & Sonnentag, 2002; Sonnentag & Fritz, 2007). At the same time, workload is a strong negative predictor of detachment in the evening (Sonnentag & Bayer, 2005). Therefore, we controlled for employees' workload during the workday that measured in the end-of-workday survey in our

[1] Sleep quantity was assessed with the following question: "overall, how many hours did you sleep last night?" Sleep quality was measured with two items: "what was the quality of your sleep last night?" (1- very poor; 5 – very good) and "how satisfied are you with your sleep" (1 – not at all; 5 – very satisfied). Fatigue was measured with two items: "right now, I feel exhausted" (1- not at all; 5- extremely) and "right now, I feel fatigued" (1- not at all; 5- extremely). The correlations are at the within-person level and were computed with the same dataset (k = 382).

data analyses. We measured workload with the following item: "Today, the amount of work I was expected to do was too great" (1- strongly disagree; 5 – strongly agree). This item was adapted from Bolino and Turnley (2005) measure of role overload.

Construct Validity

We tested the construct validity of our variables with a multilevel confirmatory factor analysis (CFA) using Mplus 8.0, following the procedure outlined by Sonnentag and Starzyk (2015). Given that all our hypotheses pertain to within-level relationships, all variables were person-mean centered (thus removing all the variance at the between level). The multilevel approach takes into account the dependence of day-level data within each person. We compared the five-factor model with all items loading on their respective factors with 4 alternative models (see Table 1). Overall, the five-factor model had a good fit ($\chi 2 = 37.562$, df = 26, SCF = 1.78, CFI = 0.978, RMSEA = 0.033) and fit the data significantly better than the alternative models, suggesting that all the measures used refer to factorially distinct constructs. The standardized factor loadings were acceptably high in all factors (ranging from .412 to .899, $p < .001$).

Insert Table 1 about here

Results

The diary data we collected had a hierarchical structure with two nested levels: the person level (level 2) and the day level (level 1). Means, standard deviations and zero-order correlations can be seen in Table 2. The correlation coefficients shown below the diagonal represent the daily variables aggregated at the person level (N = 77). To obtain these correlations, we calculated the average across all measurement occasion per given variable. To calculate the correlation coefficients shown above the diagonal, instead, we subtracted

each person-mean score from each observation, so as to reflect purely intra-individual variation (N = 254-365).

Insert Table 2 about here

The findings show, as would be expected given the hypotheses, that taking charge was positively correlated with resource drain at the within-person level ($r = .17$, $p < .01$), and resource drain was negatively correlated with detachment ($r = -.24$, $p < .001$) as well as recovery ($r = -.21$, $p < .01$). At the person level, there was no significant correlation between taking charge and resource drain ($r = -.06$, *n.s.*). However, resource drain was negatively correlated with detachment ($r = -.49$, $p < .001$) and recovery ($r = -.41$, $p < .001$).

In regard to other correlations, at the day level, resource drain was correlated with workload ($r = .16$, $p < .01$). At the between-person level, taking charge was correlated with workload ($r = .14$, $p < .01$), although there was no relationship at the day level of analysis ($r = .06$, $p > .05$). Taking charge was significantly associated with autonomous motivation both at the person ($r = .34$, $p < .001$) and the day level ($r = .31$, $p < .001$).

Prior to testing our hypotheses, we specified a null model to compute the Intra-Class-Correlation (ICC) for all our variables to verify whether a multi-level approach was appropriate for our analyses. We calculated ICCs by specifying a null model including all the variables as dependent variables. Overall, our analyses indicated that our variables had a total day level variance ranging from 60% to 76%, thus suggesting the suitability of a multi-level approach to our analyses. Given that our goal was to explore within-day effects of taking charge behavior on resource drain, detachment and recovery, all our predictors were person-mean centered using the participants' mean across the measurement (Hofmann & Gavin, 1998; Ohly et al., 2010). We ran our analysis using Mplus 8.0 software (Muthén & Muthén, 1998-2017).

To test our hypotheses, we tested a set of nested path models for each outcome (i.e., evening detachment and next morning recovery) using Mplus TYPE=TWOLEVEL function to take the non-independence of observations into account. All our study variables were assessed at the within-person level. Given that all our hypotheses pertained to the within-level of analysis, we specified models with random intercept and fixed slopes in the interest of parsimony. Model 1 included all the main effects, Model 2 also included the interaction effect of autonomous motivation and taking charge. All findings are reported in Table 3. We ran these analyses with and without workload (modelled at the within-subject level) as a control variable. The results pertaining to our main hypotheses were not affected by the presence of the control variable. Therefore, in line with Becker's (2005) recommendations we deleted workload from our analyses to avoid any unnecessary decline in statistical power[2].

For Hypothesis 4 (concerning the spillover effects on next morning recovery), we created lagged versions of all our variables and regressed recovery against them. Given that recovery was measured in the morning survey, whereas all the other variables were measured in the end-of-workday and evening survey, we adopted this approach to establish the correct temporal sequence. The inclusion of these lagged effects resulted in a decrease in statistical power (the number of days dropped from 316 to 302). The moderated mediation was specified using the MODEL CONSTRAINT function of Mplus (Muthén & Muthén, 1998-2017) by calculating the indirect effects of taking charge on detachment and recovery at varying levels of autonomous motivation.

Test of hypotheses

Hypothesis 1 stated that daily taking charge behavior would be associated with resource drain only when autonomous motivation is low. To test this, we ran two nested path models: all main effects were entered in Model 1, whereas Model 2 included the interaction term (see

[2] The model results including workload as control variable are available in the electronic supplementary material

Table 3). As shown in Model 1, results indicated a significant main effect of taking charge on resource drain (B = 0.21, SE = .07, p = <.001), whereas autonomous motivation had a significant negative main effect (B = -0.22, SE = .11, p < .05). In line with our expectations, the interaction term between autonomous motivation and taking charge was significant (Model 2, B = -.20, SE = .08, p < .05). A plot of the interaction effect is shown in Figure 2. Specifically, on days in which participants reported low levels of autonomous motivation, taking charge behaviors were associated with higher levels of resource drain. Conversely, on days when participants reported high autonomous motivation, taking charge did not result in greater resource drain after work. Thus, Hypothesis 1 received full support. For Hypothesis 2, our analyses revealed that there was a significant effect of resource drain on evening detachment (B = -.31, SE = .11, p < .01), such that daily resource drain was associated with reduced detachment in the evening. Therefore, Hypothesis 2 was also supported.

Insert Figure 2 about here

Hypothesis 3 stated that daily taking charge would have an indirect effect on detachment through resource drain only when daily autonomous motivation is low. To test the moderated mediation model (Preacher et al., 2007), we included daily autonomous motivation as a moderator of the indirect effect of taking charge on detachment, via resource drain. We tested the conditional effect at 1 SD above the mean, at the mean, and at 1 SD below the mean on autonomous motivation. Our analyses showed that there was a significant indirect effect of taking charge on detachment via resource drain only when autonomous motivation was low (-1SD) (indirect effect = -.13, SE = .06, p < .05). The conditional indirect effect was not significant when participants reported average (at the mean; indirect effect = -.06, SE = .03, *n.s.*) or high levels of autonomous motivation (1SD above the mean; indirect effect = -.00, SE = .03, *n.s.*). An overview of these findings along with the corresponding

95% confidence intervals for the indirect effects is available in Table 3. In summary, these findings provide support to our moderated mediation model: on days in which participants reported low levels of autonomous motivation, taking charge behavior was associated with reduced evening detachment, with this effect mediated by resource drain. Therefore, Hypothesis 3 was also supported.

Insert Table 3 about here

Finally, Hypothesis 4 pertained to the negative indirect effect of taking charge on next morning recovery, via resource drain and detachment. To test this, we created one-day lagged variables for taking charge, resource drain, detachment, autonomous motivation. We then computed two nested path models with recovery in the morning as the dependent variable. Analyses revealed that lagged evening detachment was a significant predictor of recovery the following morning (B = .18, SE = .09, p < .05). Nonetheless, the conditional indirect effect of taking charge on next morning recovery was not significant (although it approached the threshold of marginal significance at 1 SD below the mean; B = -0.07, SE = .04, p < .10). An overview of the path models and the conditional indirect effects can be seen in Table 4.

Insert Table 4 about here

Discussion

The purpose of this study was to investigate how behaving proactively at work impacts on employees' life outside of work. Specifically, we integrated resource drain theory with self-determination theory to analyze when and how taking charge behavior interferes with the process of psychological detachment and recovery from work demands during non-work time.

The current findings add to a growing body of literature on proactive behavior (for a comprehensive review, see Parker & Bindl, 2017) by enriching our understanding of its personal consequences. This is a crucial avenue of research, given that organizations place increasing emphasis on the importance of a proactive workforce, and expect their employees to use personal initiative in their work activities (Bolino et al., 2010; Parker & Bindl, 2017). There have been contradictory predictions regarding the possible well-being outcomes of proactive behavior (Bolino et al., 2010; Strauss & Parker, 2014), and the few studies that empirically investigated the issue yielded diverging results (Cangiano et al., 2019; Fay & Hüttges, 2017; Lin & Johnson, 2015; Zacher et al., 2019). The model presented here suggests that a careful consideration of moderating factors is essential in understanding *when* proactivity generates positive and/or negative outcomes for employees.

These findings are in line with the study by Lin and Johnson (2015), providing support for the idea that proactivity can indeed consume resources. In this paper, we go beyond their findings by considering how the consumption of these resource interferers with the process of detachment. Regarding the moderating role of motivation, our study has corroborated the findings of Strauss et al. (2017), who found that one's motivation at work can influence the personal consequences of proactivity, resulting in greater job strain when one's autonomous motivation is low. Similarly, the results of our investigation are consistent with Pingel et al. (2019), who showed that externally motivated proactivity can increase counterproductive behavior by draining emotional and cognitive resources.

However, this research extends beyond these findings by considering how these effects unfold outside of work on a given day: this study has demonstrated that proactivity can have consequences on employees' lives outside of work. One of the most significant results to emerge from our investigation is that one's level of autonomous motivation at work can indeed shape the effects of proactivity on the non-work domain, even at the daily level:

when one's autonomous motivation is low, proactive behavior interferes with the process of detachment by causing resource drain. As expected, we did not observe the same effect when autonomous motivation is high. From a broader viewpoint, our findings indicate that autonomous motivation is not only a strong motivator of proactivity (Parker et al., 2010), but also an important factor to consider when looking at the personal consequences of this way of behaving (Cangiano & Parker, 2016).

Additionally, the intra-individual approach we adopted extends the findings of Pingel et al. (2019) to the within-person level of analysis. This is an important consideration, especially given that other studies showed dissimilar effects of proactivity on the same outcome at different levels of analysis (Fay & Hüttges, 2017; Zacher et al., 2019). In our study, there was a positive association between taking charge and resource drain at the day-level, thus corroborating Pingel et al.'s findings at a different level of analysis. This suggests that, while for some processes the effects of proactivity may differ across levels, this appears not to be the case in this investigation.

The results of our study add to the growing body of literature regarding the detachment-recovery link, reinforcing the idea that psychological detachment is a strong determinant of recovery from work demands (Sonnentag, 2012; Sonnentag & Bayer, 2005; Sonnentag et al., 2010; Sonnentag & Fritz, 2015). Nonetheless, we failed to observe a significant indirect effect of taking charge on next morning recovery (via resource drain and detachment), suggesting a lack of negative spillover on the next day. It is possible that the negative effects of engaging in taking charge behavior when autonomous motivation is low might fade away relatively quickly, indicating that although taking charge can interfere with the process of detachment in the evening, there are other factors that strongly influence the process of recovery (e.g., sleep quantity and quality). Nonetheless, it is important to note that, in order to test hypothesis 4 (concerning the negative spillover on next morning recovery), we

were required to create lagged versions of all our variables (except recovery), resulting in a reduction of sample size, possibly weakening the statistical power of our model to detect significant effects (Ford et al., 2014; Ohly et al., 2010). This prospect is further corroborated by the fact that the p value of the indirect effect when autonomous motivation was low closely approached the threshold for significance. Therefore, this non-significant relationship should be interpreted with this limitation in mind. Future studies could examine in depth these relationships using larger samples that can afford appropriate statistical power.

It should be noted that our results only apply to taking charge and may not be generalized to all proactive behaviors. It is in fact reasonable to assume that different types of proactive behaviors may have differential outcomes for employees: high resource-demanding behaviors such as taking charge might be more conducive to resource drain when autonomous motivation is low compared to behaviors like voice, which are arguably less resource-demanding for employees. Further research could extend our findings by systematically assessing the resource implications of different types of proactive behavior.

There are a few important limitations in our investigation that need to be addressed. First, because our data was collected using self-reported measures, our findings are potentially vulnerable to common-method variance issues (Podsakoff et al., 2003). In this study, all our predictors were person-mean centered to the individual weekly average across all days of measurement to interpret within-person effects. The procedure of centering predictors reduces the possible influence of individual response tendencies (e.g., acquiescence, leniency and social desirability) that typically inflate relationships between self-ratings (Ilies et al., 2011). Additionally, common method variance cannot explain or influence interaction effects, so we assume our effects are only marginally influenced by variance attributable to the measurement method (Siemsen et al., 2010). Second, it is worth noting that our measure of autonomous motivation did not pertain specifically to proactive

efforts; rather, it was a measure of daily work motivation. It is possible that our measure captures both autonomous motivation towards taking charge and autonomous motivation towards core performance. Future studies could adopt an approach similar to Pingel et al.'s (2019) to investigate how specific motivations to be proactive shape daily personal consequences. Third, due to the intra-individual nature of our research questions, the sample recruited for this study did not allow enough statistical power to explore possible cross-level interactions with variables at the person level (e.g., personal differences, work design). Future research could usefully explore the factors that mitigate or worsen the negative consequences of proactive behavior on the non-work domain. It is conceivable to expect that one's number of dependents (and their age) is a variable likely to exacerbate the resource-draining effects of proactive behavior due to the increased amount of resources necessary to deal with family responsibilities. Another limitation concerns the sample recruited for this study. Participants were volunteers enrolled in a part-time MBA. Although our participants were employed in a wide array of managerial positions in several different industry sectors, we acknowledge that more research is needed to generalize the findings of this study to the broader working population. Furthermore, completing an MBA while working may have made our participants especially prone to experience the negative effects of taking charge on detachment and recovery compared to the general working population. Finally, we measured some constructs (recovery and workload) using single items in an effort to keep survey length to a minimum to encourage careful response and alleviate possible respondent bias (Fu, 2005). Although there are concerns regarding the reliability and validity of single-item measures, Fisher et al. (2016) argued that single-item measures can be useful when it is not practical to use multiple item measures, and concluded that "single items are more appropriate as moderator or control variables, rather than as a primary construct in a research study" (p.19). In this study, our core variables (i.e., taking charge, resource drain, detachment and autonomous motivation) were

measured with multiple items. Similarly, it is acceptable to use single items if they display high face and content validity, and correlate with other variables as expected (Fisher & To, 2012).

Findings from this research provide various insights into the management of proactive behavior. This study does not contradict the idea that proactive behavior can be a win-win situation benefitting employees and employers alike: while proactivity benefits the organization by enhancing employees performance and increasing firm success (Frese & Fay, 2001; Grant et al., 2009), it may also boost perceptions of competence (Strauss & Parker, 2014) and benefit one's professional career (Blickle et al., 2009; Vos et al., 2009). However, there is growing evidence suggesting the stressful aspects of proactive behavior (Cangiano et al., 2019; Fay & Hüttges, 2017; Pingel et al., 2019; Strauss et al., 2017), indicating that proactive behavior can turn out to be detrimental for employees under certain circumstances. Our results show that when individuals are not autonomously motivated in their work, proactive behavior can backfire and cause resource drain, which in turn undermines the process of detachment from work. Accordingly, organizations willing to encourage employee proactivity whilst minimizing possible drawbacks on their ability to detach from work should aim to create an environment that fosters autonomous motivation. For instance, by maximizing personal choice regarding how to reach their work-related goals or inviting participation in decision making to generate a greater sense of autonomy and ownership (Stone et al., 2009).

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TABLE 1

Results of confirmatory factor analysis

Variables	χ^2	*df*	SCF	CFI	TLI	RMSEA	S-B χ^2	*df*	*p*
Models									
1M: Five-factor model	37.562	26	1.780	0.978	0.962	0.033			
2M: Four-factor model	58.754	29	1.790	0.944	0.913	0.049	20.413	3	.001
3M: Three-factor model	108.463	32	1.852	0.856	0.797	0.076	62.035	6	.001
4M: Two-factor model	201.915	34	1.907	0.683	0.581	0.175	137.342	8	.001
5M: One-factor model	332.276	35	1.772	0.439	0.279	0.142	298.909	9	.001

Note: SCF = scale correction factor; CFO = comparative fit index; TLI = Tucker-Lewis index; RMSEA = root mean square error of approximation. S-B χ2 = Satorra-Bentler χ2 referring to the comparison with the five-factor model. 2M: detachment and recovery loading on one common factor. 3M: resource drain, detachment and recovery loading on one common factor. 4M: autonomous motivation, resource drain, detachment and recovery loading on one common factor. 5M: taking charge, autonomous motivation, resource drain, detachment and recovery loading on one single factor.

TABLE 2

Means (M), Standard Deviations (SD), and Correlations among Study Variables

Variable	M	SD	1	2	3	4	5	6
1. Taking charge (end-of-workday)	3.37	.84	-	.31***	.17**	-.01	.06	.01
2. Autonomous motivation (end-of-workday)	3.72	.76	.34***	-	-.11	.13*	-.06	.07
3. Resource drain (evening)	2.67	.91	-.06	-.08	-	-.24***	.16**	-.21**
4. Psychological detachment (evening)	3.54	1.05	.04	.30***	-.49***	-	-.30***	-.09
5. Workload (end-of-workday)	2.70	1.06	.14**	-.01	.50***	-.31***	-	.29
6. Recovery (morning)	3.23	1.00	.11*	.38***	-.41***	.33**	-.19***	-

NOTES. Correlations below the diagonal represent the between-person level (N = 77) whereas correlations above the diagonal are at the within-person level (N = 254-365 depending on the number of missing values in some of the daily surveys). Coefficients above the diagonal were calculated by subtracting participants' daily responses from their respective person-mean score (Snijders & Bosker, 1999).
*$p < .05$. ** $p < .01$. *** $p < .001$.

TABLE 3

Results of multilevel path-analyses predicting detachment

	Null model		Model 1		Model 2	
	Est	*SE*	Est	*SE*	Est	*SE*
Intercept (*detachment*)	3.491***	0.085	3.491***	0.087	3.491***	0.087
Intercept (*resource drain*)	0.000	0.000	-0.003	0.002	0.017	0.011
Taking charge (TC) → resource drain			0.210***	0.065	0.206**	0.062
Autonomous motivation (AM) → resource drain			-0.219*	0.107	-0.234*	0.110
TC * AM → resource drain					-0.196*	0.078
Resource drain → detachment			-0.309**	0.107	-0.311**	0.109
Residual variance at day-level (*detachment*)	0.736***	0.077	0.708***	0.077	0.707***	0.077
Residual variance at day-level (*resource drain*)	0.394***	0.051	0.362***	0.043	0.356***	0.042
Residual variance at person-level (*detachment*)	0.375***	0.073	0.378***	0.077	0.379***	0.077
-2 x log likelihood (SCF)	-738.733 (1.072)		-669.726 (1.203)		-667.523 (1.160)	
Δ -2 x log likelihood (*df*)			97.161***(3)		5.382* (1)	

Note. Regression coefficients are unstandardized estimates from Mplus (k = 316). Predictors were centered at the person mean.
df = degrees of freedom; Est = estimate, SCF = scaling correction factor.
*$p < .05$; **$p < .01$; ***$p < .001$.

Conditional indirect effects of taking charge on detachment (via resource drain) depending on levels of autonomous motivation

	Est	SE	95% Confidence interval
- 1 SD	-.125*	.062	[-0.247, -0.003]
Mean	-.064	.034	[-0.130, 0.003]
+ 1 SD	-.002	.028	[-0.057, 0.053]

Note: *$p < .05$

TABLE 4

Results of multilevel path-analyses predicting next morning recovery

	Null model		Model 1		Model 2	
	Est	*SE*	Est	*SE*	Est	*SE*
Intercept (*next morning recovery*)	3.181***	0.080	3.190***	0.084	3.190***	0.084
Intercept (*detachment*)	-0.008	0.018	0.000	0.024	0.001	0.024
Intercept (*resource drain*)	0.031*	0.012	-0.043*	0.019	0.017*	0.011
Taking charge (TC) → resource drain			0.228***	0.064	0.222***	0.059
Autonomous motivation (AM) → resource drain			-0.216*	0.091	-0.243*	0.098
TC * AM → resource drain					-0.165*	0.070
Resource drain → detachment			-0.309**	0.112	-0.349**	0.112
Detachment → next morning recovery			0.181*	0.087	0.183*	0.087
Residual variance at day-level (*next morning recovery*)	0.658***	0.052	0.691***	0.067	0.691***	0.066
Residual variance at day-level (*detachment*)	0.571***	0.069	0.528***	0.062	0.528***	0.062
Residual variance at day-level (*resource drain*)	0.405***	0.055	0.373***	0.048	0.369***	0.048
Residual variance at person-level (*next morning recovery*)	0.343***	0.052	0.323***	0.075	0.323***	0.075
-2 x log likelihood (SCF)	-1075.165 (1.023)		-891.330 (1.153)		-890.700 (1.125)	
Δ -2 x log likelihood (*df*)			266.504***(3)		3.990* (1)	

Note. Regression coefficients are unstandardized estimates from Mplus (k = 302). Predictors were lagged one day and centered at the person mean.
df = degrees of freedom; Est = estimate, SCF = scaling correction factor.
*$p < .05$; **$p < .01$; ***$p < .001$.

Conditional indirect effects of taking charge on detachment (via resource drain and detachment) depending on levels of autonomous motivation

	Est	SE	95% Confidence interval
- 1 SD	-.072†	.038	[-0.146, 0.002]
Mean	-.014	.010	[-0.033, 0.005]
+ 1 SD	0.043	.029	[-0.014, 0.101]

Note: †$p < .10$

FIGURE 1

Hypothesized Research Model

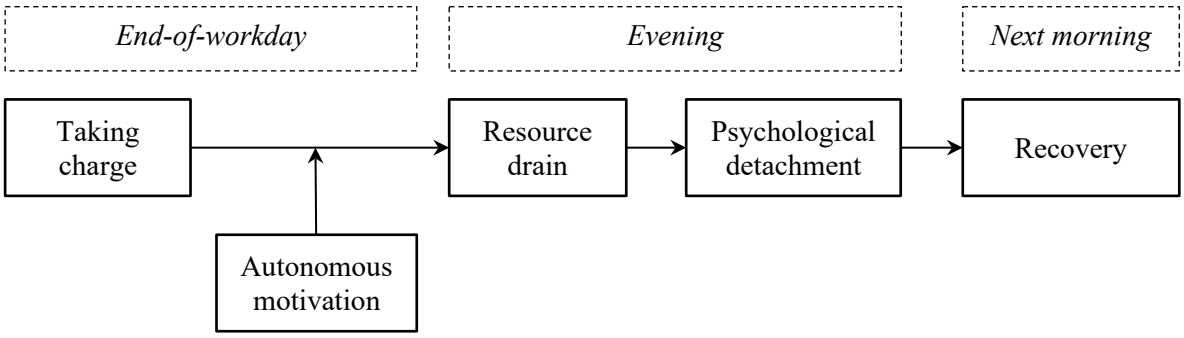

FIGURE 2

Autonomous motivation moderates the effect of taking charge on resource drain