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**Does Daily Proactivity Affect Well-Being? The Moderating
Role of Punitive Supervision**

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DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

Does Daily Proactivity Affect Well-Being?

The Moderating Role of Punitive Supervision

Abstract

Proactive behavior (self-initiated and future-oriented actions to bring about change) has largely positive consequences for organizationally-oriented outcomes such as job performance. Yet, the outcomes of proactivity from a well-being perspective have not been clearly considered. Drawing on self-determination theory and the stressor-detachment model, we propose two distinct paths by which proactivity affects individuals' daily well-being. The first path is an energy-generating pathway in which daily proactive behavior enhances end-of-work-day vitality via perceived competence. The second is a strain pathway in which daily proactive behavior generates anxiety at work, which undermines the process of detachment from work. We argue that these pathways are shaped by the extent to which supervisors are prone to blaming employees for their mistakes (punitive supervision). We tested this model using a sample of 94 employees who completed surveys three times a day for between 5 to 7 days. Our multilevel analyses provide support for the proposed dual-pathway model and suggest differential well-being outcomes of daily proactive work behavior. Overall, when an individual behaves proactively at work, they are more likely to experience higher levels of daily perceived competence and vitality. However, these positive effects can exist in parallel with daily negative effects on end-of-work day anxiety, and hence bed-time detachment, but only when the supervisor is perceived to be punitive about mistakes.

Keywords: proactive work behavior; vitality; anxiety; punitive supervision; detachment.

DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

Introduction

The concept of proactive work behavior (self-initiated, anticipatory and change-oriented) has captivated scholars' attention for a quarter of a century (Bateman & Crant, 1993; Bindl & Parker, 2011). This is not surprising given the increasing importance that organizations place on such behaviors (Crant, 2000; Parker, 2000). This attention has produced much research on the subject: researchers have explored the antecedents of proactivity (e.g., Clegg, Unsworth, Eitropaki, & Parker, 2002; Parker & Collins, 2010; Parker, Williams, & Turner, 2006), the contingencies that influence proactivity pathways (e.g., Grant & Ashford, 2008; Thomas, Whitman, & Viswesvaran, 2010; Tornau & Frese, 2013), and the consequences for individuals. Regarding the latter, between-person studies show that, compared to non-proactive individuals, proactive employees receive superior performance ratings, are more likely to be promoted, and have more successful careers (e.g., Belschak & Hartog, 2010; Blickle, Witzki, & Schneider, 2009; Crant, 2000; Grant, Parker, & Collins, 2009; Vos, Clippeleer, & Dewilde, 2009).

To date, there has been little work on the well-being effects of proactivity: most research has focused on the desirable outcomes of being proactive, such as its positive consequences for entrepreneurial success (Fay & Frese, 2001), supervisory performance evaluations (Grant et al., 2009), and career progression (Blickle et al., 2009). In contrast, the possible consequences (negative in particular) of proactive work behavior from a well-being perspective have been somewhat ignored. Aside from speculative conceptual papers (Bolino, Valcea, & Harvey, 2010; Strauss & Parker, 2014), little attention has been given to the negative consequences that this behavior might have for employees' well-being. This gap is noteworthy, because - if proactivity is good for the organization and for an individual's career, but also harms well-being - the sustainability of this behaving is at risk. Furthermore, to the extent that negative outcomes have been considered, research has primarily focused on

DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

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3 the effects of proactive personality (i.e., an individual's disposition to be proactive; Fuller &
4 Marler, 2009). Instead, this paper explores the consequences of daily proactive behaviors and
5 the role that situational contingencies play in shaping these outcomes.
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9 Our goal is to assess the effects of daily proactive work behavior on daily well-being.
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11 There has been speculation that proactive behavior can yield beneficial (Strauss & Parker,
12 2014), detrimental (Bolino, Valcea, et al., 2010), or even double-edged consequences for
13 well-being (Cangiano & Parker, 2015). However, studies attempting to resolve these
14 contradictory arguments are lacking, with just one showing that proactivity predicted cortisol
15 levels, an indicator of arousal, but did not affect job strain (Fay & Hüttges, 2016). We test
16 theorizing about the 'bright' and 'dark' side of proactive work behavior for employee well-
17 being by exploring two distinct day-level processes (see Figure 1). We draw upon self-
18 determination theory and the stressor-detachment framework, respectively, to hypothesize
19 two well-being pathways of proactivity: an energy-generating pathway and a strain pathway.
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37 With respect to the energy-generating pathway, we propose that the nature of
38 proactive behavior generates a sense of vitality in employees. Vitality captures an
39 individual's feeling of aliveness and vigor (Ryan & Frederick, 1997) and is an indicator of
40 positive well-being. We argue that, because it is self-initiated and agentic, behaving
41 proactively contributes to employees' perceptions of competence, which in turn enhances
42 feelings of vitality. We conceptualize this as a relatively fast-acting process because we
43 expect the very act of behaving proactively creates almost immediate feelings of competence,
44 which, in turn, foster the generation of vitality.
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In a co-occurring but slightly longer-term process, and drawing on Sonnentag and Fritz's stressor-detachment framework (2015), we propose that proactive work behavior can also generate a sense of anxiety and interfere with the process of detachment after work (i.e., unwinding from work demands). Anxiety is an affective experience characterized by feelings of worry and nervousness that can indicate negative well-being (Warr, 1990). We suggest that anxious feelings can linger throughout the day and spill over to impair one's evening detachment, which is "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). Detachment 'matters' because it facilitates recovery, or the replenishment of one's resources that are drained during work (Sonnentag, 2003).

Importantly, we contend that the generation and strain pathways are undermined versus exacerbated, respectively, in the context of a blame-oriented supervisor who reacts negatively to employees' mistakes (Bolino, Valcea, et al., 2010). When proactivity is initiated in the context of a punitive supervisor, we propose that behaving proactively will undermine one's sense of competence and exacerbate anxiety, because the context will feel especially psychologically risky for employees and expose them to potential reprimands from the manager (Bolino, Valcea, et al., 2010). Managers have formal power over financial, personnel, and political resources within an organization, so if employees perceive that mistakes are noticed, pointed out or not well-tolerated by their supervisors, this is likely to undermine their potential for feeling competent and to magnify their anxiety when engaging in the challenging and more unpredictable behavior of proactivity.

Our research contributes to this topic in several ways. First, despite little research that has considered the well-being outcomes of proactive behavior, it is an important outcome in and of itself, especially in light of increasing concerns about stress and poor mental health in

DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

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3 the workplace (e.g., Danna & Griffin, 1999). In addition, understanding well-being effects
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5 should enhance our capability to support proactivity at work over the longer-term.
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7 A second key contribution of this study arises from our within-person approach, in
8
9 which we seek to understand whether and how, if a person is more or less proactive on a
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11 given day, their well-being is affected. Although a within-person approach has been shown to
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13 be important in the study of antecedents of proactive behaviors (e.g., Binnewies, Sonnentag,
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15 & Mojza, 2010; Sonnentag, 2003), it has not been used to investigate its outcomes (with the
16
17 exception of Fay & Huttges, 2016). Yet a within-person approach to understanding
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19 proactivity outcomes is important, and distinct from a between-person approach. Although
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21 meta-analyses suggest that proactive individuals are more likely to receive better
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23 performance evaluations and be satisfied about their job, implying a positive effect on well-
24
25 being, such relationships may be different at the within-person level (Thomas et al., 2010). It
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27 is plausible to expect that, on certain occasions, being proactive might not be well-received,
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29 which could impact the individual's psychological state and potentially harm well-being
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31 (Bolino, Valcea, et al., 2010). Between-person approaches fail to capture such mechanisms,
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33 or the contingencies that affect them. Further, well-being is prone to fluctuations over short
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35 periods of time, and therefore a within-person approach is likely more appropriate than a
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37 between-person approach to unpack the consequences of proactive behavior for this outcome
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39 (Xanthopoulou, Bakker, & Ilies, 2012). We elaborate our theory and hypotheses next, first
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41 describing the energy-generating pathway, and second describing the strain pathway
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43 (Cangiano & Parker, 2015).
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An Energy-Generating Pathway of Proactive Work Behavior

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50 Proactive work behavior refers to self-initiated efforts that “focus on taking control of,
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52 and bringing about change within, the internal organizational environment” (Parker &
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54 Collins, 2010, p.636). A defining feature of proactive work behavior is that it is self-initiated
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DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

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3 and change-focused action: in essence, behaving proactively involves ‘making things
4 happen’. Such behavior is also future-focused: it involves anticipating and thinking ahead,
5 rather than merely reacting to the situation. Research suggests that proactive work behavior is
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7 fueled by feelings of autonomous motivation, self-efficacy, and activated positive affect
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9 (Parker, Bindl, & Strauss, 2010).
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13 We propose that, on a daily basis, engaging in proactive work behavior generates
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15 vitality (i.e., a feeling of energy and aliveness) because it increases levels of experienced
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17 competence at work. According to self-determination theory (SDT), humans have an innate
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19 desire to experience competence, or the need to be effective and master the environment. This
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21 assumption is also prevalent in Ryff’s (1989) conceptualization of well-being, which argues
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23 that the ability to master and control one’s environment is beneficial for individuals’ mental
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25 health. Due to its discretionary and agentic nature, we propose that engaging in proactive
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27 behavior at work will provide fertile ground for employees to perceive themselves as
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29 competent in their daily work activities.
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33 There are at least three reasons why proactive work behavior is likely to be important
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35 for fulfilling an employee’s competence needs (Strauss & Parker, 2014). First, proactivity is
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37 challenging, which means that it can fulfil individuals’ innate desires to feel competent
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39 (Massimini & Carli, 1988). Challenging tasks create perceptions of competence because they
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41 promote the experience of mastery in one’s environment (Deci & Ryan, 2000). Proactivity
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43 often transcends formal job descriptions, which means there are no clear instructions or
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45 guidelines to follow (Parker et al., 2010; Strauss & Parker, 2014), enhancing the degree to
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47 which it is perceived as a challenging activity. Proactivity is also change-oriented, and trying
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49 to bring about change involves challenges such as dealing with the resistance of others
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51 (Parker et al., 2010). Moreover, the future-focus of proactivity means that the outcome of this
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53 behavior is unknown, again adding to the degree of challenge. Second, we know that
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DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

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3 proactive behavior often results in positive outcomes that contribute to performance, which
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5 again likely fuels competence perceptions. For instance, attacking a problem before it occurs
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7 likely saves time compared to dealing with it 'reactively' after its manifestation. Third,
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9 because proactive behavior is self-initiated, its execution means that the individual can
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11 attribute any positive outcomes to their own personal efforts, which in turn is likely to fuel
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13 the individual's sense of competence.
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16 Therefore, we expect that proactive behavior provides a vehicle for enhancing one's
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18 perceived competence at work. A previous within-person study provides indirect support for
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20 this theorizing: in 2012, Fay and Sonnentag showed that when people have a desire to
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22 experience competence at work, they are more likely to engage in proactive behavior.
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24 Although this effect is about the desire for competence fueling proactive behavior rather than
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26 the reverse, this study's findings are consistent with the idea that proactivity can serve as a
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28 means to experience competence. It is likely that individuals learn over time that being
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30 proactive fosters their sense of competence, which then means that they will enact proactive
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32 behavior to achieve the feeling of competence. We propose:
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37 *Hypothesis 1:* Proactive work behavior is positively associated with perceived
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39 competence at the end of the workday, such that individuals perceive a greater sense
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41 of competence on days in which they engage in high levels of proactive work
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43 behavior compared to days in which they behave less proactively.
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47 We further propose that experiencing competence at work affects employees' vitality,
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49 in an energy-generating process. Self-determination theory proposes that, when individuals
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51 engage in activities that allow them to have their basic need for competence satisfied,
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53 individuals experience a sense of vitality, and, conversely, when this need is thwarted,
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55 individuals experience a lack of energy and suboptimal functioning (Deci & Ryan, 2000;
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DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

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3 Ryan & Deci, 2000). According to Ryff (1989), competence is a core tenet of well-being:
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5 one's perceived ability to manipulate and control the environment through mental and
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7 physical activities can contribute to mental health. The positive link between competence and
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9 vitality is well established, even being validated across cultures (e.g., Deci et al., 2001;
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11 Milyavskaya & Koestner, 2011). Evidence from experience-sampling studies corroborates
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13 this theorizing. Sheldon, Ryan, and Reis (1996) showed that daily fluctuations in perceptions
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15 of competence were associated with vitality. Similarly, Ryan, Bernstein, and Brown (2010)
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17 found that the greater the sense of competence workers experienced in their daily tasks, the
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19 greater their sense of vitality. We expect that fluctuations in daily proactive behavior will
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21 positively predict fluctuations in vitality. We propose:

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26 *Hypothesis 2:* Perceived competence is positively associated with vitality at the end of
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28 the workday, such that individuals experience higher levels of vitality on days in
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30 which they perceive a high level of competence compared to days in which they have
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32 lower perceptions of competence.

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36 *Hypothesis 3:* Proactive work behavior has an indirect positive effect on one's vitality
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38 experienced at the end of the workday, through its effect on perceived competence.

41 **A Strain Pathway of Proactive Behavior**

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43 We propose that proactivity generates anxiety and interferes with the process of
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45 detachment. We conceptualize this strain pathway as a slightly longer-term process compared
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47 to the energy-generation process. In this pathway, we explore the 'risky' nature of
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49 proactivity, and focus on how being proactive could undermine individuals' well-being after
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51 work (Sonnentag & Krueger, 2006).
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DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

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3 Parker et al. (2010) described how the uncertainty, change-focus, and self-initiated
4 features of proactivity result in it being psychologically risky. For example, engaging in
5 proactive behavior often means changing existing work procedures, and this challenging
6 component of proactive behavior means it can be perceived as threatening (Bolino, Valcea, et
7 al., 2010). Indeed, proactive behavior is not always welcomed by organizations and may
8 encounter resistance from others (Frese & Fay, 2001). For this reason, pursuing proactive
9 goals can be perceived as 'risky'. Unsurprisingly, and related to its risky nature, previous
10 studies have found that a sense of trust in the organization predicts innovative behavior
11 (Clegg et al., 2002), that employee self-efficacy is a crucial determinant of multiple forms of
12 proactivity (e.g., Frese & Fay, 2001; Parker et al., 2010), and employees are more likely to be
13 proactive within organizations that foster a climate that encourages taking risks without
14 repercussions (Baer & Frese, 2003). The future-focus of proactivity also means that the
15 outcome of this behavior is often unknown, and while this may create a motivating sense of
16 challenge in employees, it may also trigger anxiety, such as in relation to negative outcomes
17 that employees may be held accountable for. Anxiety refers to an unpleasant emotional state
18 of high physiological activation (Posner, Russell, & Peterson, 2005). It reflects the tendency
19 for individuals to be easily upset by things that go wrong, and worry or ruminate
20 unnecessarily about unpleasant things which may or may not happen (Eysenck, MacLeod, &
21 Mathews, 1987; MacLeod & Mathews, 2012; Smillie, Yeo, Furnham, & Jackson, 2006). In
22 sum, the psychologically risky nature of proactive behavior means that it could elicit feelings
23 of anxiety in employees.

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50 *Hypothesis 4:* Proactive work behavior is positively associated with anxiety at the end
51 of the workday, such that individuals experience higher anxiety on days in which they

DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

engage in high levels of proactive work behavior compared to days in which they behave less proactively.

We further propose that, when employees experience a heightened level of anxiety at work from behaving proactively, these feelings of anxiety and associated worries—due to the tendency for them to linger or spiral downwards such as in the form of rumination (Fresco, Frankel, Mennin, Turk, & Heimberg, 2002; Mellings & Alden, 2000; Muris, Roelofs, Meesters, & Boomsma, 2004; Segerstrom, Tsao, Alden, & Craske, 2000), can interfere with the individual's ability to detach from work demands later in the evening. Detachment (an individual's sense of 'being away' from the workplace in their off-work time) is a significant well-being outcome because it a strong predictor of next-day recovery from work demands (Sonnentag, 2003, 2012; Sonnentag & Bayer, 2005; Sonnentag, Binnewies, & Mojza, 2010; Sonnentag & Fritz, 2015; Sonnentag & Krueger, 2006; Westman & Eden, 1997), thus, low levels of detachment are a useful indicator of strain or poor well-being. Combining our arguments suggests that engaging in proactive behavior should increase feelings of anxiety over the working day and, in turn, undermine detachment from work in the evening (Sonnentag & Fritz, 2015). Therefore, we hypothesize that:

Hypothesis 5: Anxiety experienced at the end of the workday is negatively associated with detachment in the evening, such that individuals experience lower levels of detachment in the evening on days in which they experience higher anxiety compared to days in which they experience lower anxiety.

Hypothesis 6: Proactive work behavior has an indirect negative effect on one's detachment in the evening through its effect on anxiety.

DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

Moderating Effects of Punitive Supervision

We argue that the generation and strain pathways will be undermined versus exacerbated respectively, for individuals who perceive that their supervisor is punitive. A punitive supervisor is one who tends to react negatively to and blame employees for mistakes (Hamblin, 1964). Punitive supervision is related to, but the converse of, psychological safety, which is recognized to be important in the context of proactivity (Dollard & Bakker, 2010). Whereas psychological safety is about a positive, safe environment fostered by one's team members and peers, here we focus more specifically on the role that supervisors play in shaping the extent to which being proactive might undermine perceived competence and engender anxiety. We focus on supervisors because they are in a position of power, which is a status that is likely to undermine the agentic benefits of, and accentuate the psychological risks of proactive action (Detert & Treviño, 2010).

With regard to the energy-generation pathway, we propose that punitive supervision should undermine the agentic benefits of behaving proactively, which will dampen the perceptions of competence that usually flow from behaving proactively (Cangiano & Parker, 2015; Strauss & Parker, 2014). For example, when employees are afraid of possible repercussions and punishment due to their supervisor's nature, they may be particularly alert to the potential downsides of their actions and associated personal weaknesses if they have voiced their concerns or otherwise behaved proactively (Bolino, Valcea, et al., 2010). In essence, these employees should feel less sure of the consequences of behaving proactively, which will dampen the potential for feeling competent, compared to employees behaving proactively who believe their supervisor is tolerant towards errors. This effect should in turn have downstream implications for vitality experienced at the end of the workday. Therefore, our hypotheses are:

DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

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3 *Hypothesis 7a:* Perceptions of punitive supervision moderate the relationship between
4 proactive work behavior and perceived competence at the end of the workday, such
5 that the positive within-person relationship is weaker for individuals who perceive
6 high levels of punitive supervision compared to those who perceive low levels of
7 punitive supervision.
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11 *Hypothesis 7b:* Perceptions of punitive supervision moderate the indirect effect of
12 proactive work behavior on vitality through perceived competence, such that the
13 positive indirect effect is weaker for individuals who perceive high levels of punitive
14 supervision compared to those who perceive low levels of punitive supervision.
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18 With regard to the strain pathway, we propose that punitive supervision should
19 accentuate the risks of proactivity and thus behaving proactively at work in these contexts
20 should exacerbate anxiety-related feelings (Cangiano & Parker, 2015). For example, when
21 employees are afraid of possible repercussions and punishment due to their supervisor's
22 nature, they should experience a stronger sense of psychological risk, which should make
23 them particularly anxious if they have voiced their concerns or engaged in other forms of
24 proactivity (Kish-Gephart, Detert, Treviño, & Edmondson, 2009). This effect should in turn
25 have downstream implications for detachment in the evening. Therefore, our hypotheses are:
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29 *Hypothesis 8a:* Perceptions of punitive supervision moderate the relationship between
30 proactive work behavior and anxiety, such that the positive within-person relationship
31 is stronger for individuals who perceive high levels of punitive supervision compared
32 to those who perceive low levels of punitive supervision.
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36 *Hypothesis 8b:* Perceptions of punitive supervision moderate the indirect effect of
37 proactive work behavior on detachment through anxiety, such that the negative
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DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

indirect effect is stronger for individuals who perceive high levels of punitive supervision compared to those who perceive low levels of punitive supervision.

In sum, proactivity is a complex behavior that can potentially be both beneficial and detrimental for employees' daily well-being. We have proposed that proactive work behavior – by virtue of its agentic, change-focused nature – will generate one's feeling of vitality that day by enhancing perceptions of competence. However, proactivity might also undermine well-being through different processes. Consistent with Bolino and colleagues' theorizing of proactivity as a psychologically risky behavior, we have argued that proactive work behavior may also generate anxiety that, in turn, reduces psychological detachment after work. Moreover, we have argued that if one's supervisor is perceived as punitive, then the generation pathway will be undermined, whereas the strain pathway will be exacerbated, because punitive supervision is expected to dampen the agentic benefits and heighten the psychologically risky nature of proactive work behavior.

Method

Participants

The sample was 94 managers and professionals who worked in a wide range of industries in the public and the private sector. We focused on managers and professionals because these individuals possess a sufficient degree of autonomy in their daily work activities, which is an important antecedent of proactive work behavior (Griffin, Neal, & Parker, 2007; Parker & Collins, 2010). The average age in the sample was 35.3 years ($SD = 6.6$ years) and 53% were males. Participants had on average 2.5 years of experience in their current job position ($SD = 2.6$ years), and the average tenure at their current workplace was 4.4 years ($SD = 4.2$ years). All participants were enrolled in a part-time MBA (Master in Business Administration) at the University of Western Australia.

DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

Procedure

The study was conducted in two phases. In Phase 1, after participants agreed to participate in the study, they were emailed a link to complete an online baseline survey using Qualtrics. This survey assessed employees' age, gender, tenure, level of education, as well as participants' perceptions of punitive supervision.

Phase 2 consisted of the daily surveys. The data from these surveys were collected using a survey application (iSurvey or droidSurvey) installed on participants' own smartphones. In a 20-minute briefing session, participants received instructions on how to download the surveys on their smartphones and when to fill-out the surveys. Participants were asked to respond to three daily surveys over five to seven consecutive working days: within an hour before the beginning of the workday (morning survey), within an hour before the end of the workday (end-of-workday survey) and within 30 minutes before going to bed (bed-time survey).

In total, we collected data from 935 surveys/measurement occasions. Sixty-six surveys were excluded from the analyses because they were either empty or were not completed during the instructed time. Thus, the final sample size comprised 869 surveys (ranging from 8-21 measurement occasions across 3-7 days for the 94 participants).

Measures

Punitive supervision was measured in the baseline survey. All other measures were assessed in the end-of-workday survey, except detachment which was measured in the bed-time survey. As described below, anxiety and vitality were also measured in the morning survey as control variables. This study was part of a larger data collection effort that included other variables beyond those mentioned in this manuscript. The additional data have not been published elsewhere.

DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

To keep the daily survey length to a minimum and thus minimize survey fatigue in our respondents, we used a subset of two or three items from each scale, consistent with recommendations from scholars conducting ESM studies (Ohly, Sonnentag, Niessen, & Zapf, 2010).

Proactive work behavior. We assessed proactive work behavior using the following three items: “Today, I came up with ideas to improve the way in which my core tasks are done”, “Today, I initiated better ways of doing my core tasks”, and “Today, I generated creative ideas.” These items were adapted from Griffin et al. (2007) and were scored on a 5-point Likert Scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Instructions indicated that the items were to be answered in relation to work.

Perceived competence. The items used to measure perceived competence were adapted from Brien et al.’s (2012) Basic Psychological Needs at Work Scale (BPNWS). Participants reported on their perceptions of competence by responding to the following items: “Today, I felt competent” and “Today, I felt good about how well I carried out my work” on a Likert scale ranging from 1 (*to no extent*) to 5 (*to a very great extent*).

Anxiety. Anxiety was assessed using the following two items adapted from Warr’s job-related affective well-being scale (1990): “Right now, I feel anxious” and “Right now, I feel worried.” The response scale ranged from 1 (*not at all*) to 5 (*extremely*).

Vitality. Vitality was assessed using the following three items from the Utrecht Work Engagement Scale (UWES) developed by Schaufeli, Bakker, and Salanova (2006): “Right now, I feel strong and vigorous”, “Right now, I feel alive and vital” and “Right now, I feel energized.” Items were assessed on a Likert scale ranging from 1 (*not at all*) to 5 (*extremely*).

Detachment. Psychological detachment from work was assessed with two items adapted from Sonnentag, Mojza, Binnewies, and Scholl (2008). An example item is “This

DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

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3 evening, I did not think about work at all” on a Likert scale ranging from 1 (*strongly*
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5 *disagree*) to 5 (*strongly agree*).
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7 **Punitive supervision.** We developed a three-item measure of this construct to capture
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9 the extent to which employees’ perceive their supervisor as blame-oriented. Individuals were
10
11 asked how their supervisor reacts to subordinates’ mistakes and errors on a 5-point Likert
12
13 scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The items were: “My
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15 supervisor gets angry or upset with staff if they make a mistake”, “My supervisor takes
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17 responsibility away from staff if they make a mistake” and “My supervisor blames staff
18
19 personally if things go wrong”. The set of items was intended to capture exemplar forms of
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21 punitive supervision that apply across different jobs and hierarchical levels (consistent with
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23 the nature of our sample).
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27 To provide evidence of validity of this measure, we sought to show that the construct
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29 was internally consistent and related, albeit factorially distinct, from similar constructs such
30
31 as transformational leadership, developmental leadership and team climate. Our findings
32
33 showed that punitive supervision is distinct from both team climate and other aspects of
34
35 leadership and, as expected, is negatively correlated with those constructs. Drawing on a
36
37 broader sample of managers (N = 109) that included additional participants who did not take
38
39 part in the study, we carried out a Confirmatory Factor Analysis¹ (CFA) on the three items
40
41 assessing punitive supervision, as well as the items assessing related constructs. The CFA
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43 showed that the punitive supervision items assessed a unique construct, distinct from other
44
45 leadership constructs, and that the items had an appropriate internal consistency.
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48 **Control variables.** Three of the variables in our model were being predicted by a
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50 variable measured at the same time point—perceived competence, anxiety and vitality were
51
52 all measured in the end-of-workday survey and each were predicted by one or two other
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57 ¹ Full details of the structural model are available from the authors upon request.
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DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

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3 variables measured at that time-point. To address the limitations of this concurrent
4
5 measurement (due to common method variance and direction of causality), we controlled for
6
7 the lags of these three variables. Concurrent measurement was not a concern for detachment
8
9 because it was assessed at a separate time-point to other variables in the model and thus
10
11 lagged by design. Our measure of perceived competence relates to perceptions about the
12
13 current workday, so the most recent lag is perceived competence from the end of the previous
14
15 workday. Anxiety and vitality relate to momentary feelings that were experienced at the end
16
17 of the workday. Given that these experiences are not tied to work per se, the most recent lag
18
19 is feelings experienced that morning. Therefore, we controlled for end-of-workday perceived
20
21 competence from the previous day, and anxiety and vitality from the morning survey.
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23

Analytic Strategy

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26 The data collected from the baseline questionnaire and daily surveys (morning, end-
27
28 of-workday, bed-time) had a hierarchical structure with two nested levels. At the within-
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30 person, or daily level, each person provided data on three to seven days. Thus, there were 3-7
31
32 measurements of proactive work behavior, perceived competence, vitality and anxiety
33
34 (measured in the end-of-workday survey), detachment (measured in the bed-time survey),
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36 and finally, vitality and anxiety from the morning survey. At the between-person level, each
37
38 person provided one measurement of punitive supervision.
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42 We ran multi-level analyses using Mplus 8.0 software (Muthén & Muthén, 1998-
43
44 2015). We specified a null model which included all the variables as dependent variables, in
45
46 order to calculate the intra-class correlation coefficient (ICC) which indicates how much of
47
48 the variance in each variable exists at the between versus the within-person levels. We then
49
50 tested our hypotheses with the TYPE=TWOLEVEL RANDOM function in a multi-level path
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52 analysis.
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DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

Vitality and detachment were simultaneously specified as outcome variables. The effects of proactive work behavior on perceived competence and anxiety were each specified as a random slope for testing their respective cross-level moderations. The indirect effects for the energy-generating (proactive work behavior on vitality via perceived competence) and strain (proactive work behavior on detachment via anxiety) pathways were specified using the MODEL CONSTRAINT function of Mplus (Muthén & Muthén, 1998-2015). The moderating effect of punitive supervision was calculated by specifying it as a between-level predictor of perceived competence and anxiety (to control for main effects) and of the within-level random slopes previously specified.

Previous day perceived competence, morning vitality and morning anxiety were specified as lagged predictors of perceived competence, vitality and anxiety, respectively. All the within-level predictors were person-mean centered (Hofmann & Gavin, 1998; Ohly et al., 2010) whereas our between-level predictor (punitive supervision) was grand-mean centered. Effect sizes were assessed by calculating the proportion of variance accounted for in the within-person variance and between-person variance around the intercepts and slopes (Yeo & Neal, 2006; Zickar & Slaughter, 1999).

Construct validity

We tested the construct validity of all the substantive day-level variables with a multi-level confirmatory factor analysis using Mplus 8.0 (Sonnentag & Starzyk, 2015). We compared a five-factor model (end-of-workday vitality, end-of workday anxiety, perceived competence, proactive work behavior and detachment) with all items loading on the respective factors with alternative models. The five-factor model had a good fit, $\chi^2 = 107.245$, $df = 55$, $SCF = 1.781$, $CFI = 0.980$, $RMSEA = 0.045$ and fit the data better than alternative models (see Table 1). Overall, this confirmatory factor analysis shows that all measures refer to distinct constructs.

DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

Insert Table 1 about here

Results

Means, standard deviations and correlations among study variables can be seen in Table 2. The null model indicated that all our variables (excluding punitive supervision) had a within-person variance ranging between 50% and 78%, thus supporting our multi-level approach².

Insert Table 2 about here

Table 3 shows the parameter estimates of the multi-level path model. For the energy-generating pathway H_1 stated that proactive work behavior would be positively associated with perceived competence. Results showed that proactive work behavior was significantly positively associated with perceived competence ($B = 0.50, SE = 0.08, p < .001$). Given that we controlled for perceived competence on the previous day, this result indicates that high levels of proactive work behavior were associated with a larger increase in competence from one day to the next, compared to days in which participants reported lower levels of proactive work behavior. Therefore H_1 was supported.

Insert Table 3 about here

H_2 proposed that perceived competence would be positively associated with vitality. In line with our expectations, results showed that perceived competence was significantly

² The ICCs were as following: vitality (63%), anxiety (69%), detachment (62%) proactive work behavior (69%), perceived competence (52%).

DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

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3 positively associated with vitality ($B = 0.22, SE = 0.07, p < .001$). Given that we controlled
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5 for morning vitality, this result indicates that high levels of perceived competence were
6
7 associated with a larger increase in vitality from the morning to the afternoon, compared to
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9 days in which participants reported lower levels of perceived competence. Thus, H_2 was
10
11 supported.

12
13 H_3 stated that proactive work behavior would have an indirect positive effect on
14
15 vitality via perceived competence. Consistent with our predictions, analyses revealed a
16
17 significant indirect effect of proactive work behavior on vitality through perceived
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19 competence ($B = .12, SE = .04, p < .01$). The 95% confidence interval was 0.040 for the lower
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21 and 0.209 for the upper confidence limit, and therefore did not include zero. Thus H_3 was
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23 also supported. That is, on days in which individuals reported higher levels of proactive work
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25 behavior, they experienced higher levels of competence, which in turn were associated with
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27 increased vitality, compared to days in which they engaged in lower levels of proactive work
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29 behavior.
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33 H_4 proposed that proactive work behavior would be positively associated with anxiety
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35 at the end of the workday. Contrary to our expectations, results showed that proactive work
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37 behavior was not significantly associated with anxiety ($B = .14, SE = .08, p > .05$). Therefore,
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39 H_4 was not supported. H_6 stated that proactive work behavior would have an indirect effect
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41 on one's detachment in the evening via anxiety. Because we failed to observe a significant
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43 association between proactive work behavior and anxiety at the end of the workday (H_4) there
44
45 was no significant indirect effect of proactive work behavior on detachment via anxiety ($B = -$
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47 $.02, SE = .02, p > .05$). Hence, H_6 was not supported.
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51 H_5 stated that anxiety at the end of the workday would be negatively associated with
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53 detachment in the evening. Results showed that anxiety was negatively associated with
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55 detachment ($B = -0.20, SE = 0.07, p < .01$). Thus, days on which participants reported high
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DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

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3 levels of anxiety at the end of their workday, were associated with lower detachment in the
4 evening compared to days in which they reported lower levels of anxiety. Thus, H_5 was
5 supported. Beyond the control variables, the within-level predictors accounted for 34% of the
6 within-person variance in perceived competence, 3% of the within-person variance in vitality,
7 6% of the within-person variance in anxiety, and 50% of the within-person variance in
8 detachment.

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16 Hypothesis 7a and 7b pertained to the cross-level effects of punitive supervision on
17 the energy-generating pathway. H_{7a} stated that the positive within-level relation between
18 proactive work behavior and perceived competence would be weaker for individuals who
19 perceive high levels of punitive supervision, compared to low. H_{7b} proposed that perceptions
20 of punitive supervision would moderate the indirect effect of proactive work behavior on
21 vitality at the end of the workday via perceived competence. Results indicated that the cross-
22 level moderation of punitive supervision on the relationship between proactive work behavior
23 and perceived competence was not significant ($B = -0.08$, $SE = .09$, $p > .05$), thus not
24 supporting H_{7a} . Consequently, H_{7b} was also not supported. Therefore, punitive supervision
25 did not moderate the energy-generating pathway.

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37 Hypotheses 8a and 8b related to the cross-level effects of punitive supervision on the
38 strain pathway. H_{8a} proposed that the relationship between proactive work behavior and
39 anxiety would be stronger for individuals who perceive high levels of punitive supervision
40 compared to those who perceive low levels of punitive supervision. Our analyses revealed
41 that punitive supervision moderated the within-person effect of proactive work behavior on
42 anxiety, as indicated by the significant interaction term ($B = 0.17$, $SE = .08$, $p < .05$). The
43 significant interaction is depicted in Figure 2 and probed in the context of H_{8b} .

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Insert Figure 2 about here

DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

For Hypothesis 8b, which pertained to the indirect effect of proactivity on detachment (via anxiety) moderated by punitive supervision, we tested the conditional effect at 1 SD above the mean, at the mean, and at 1 SD below the mean of punitive supervision: our analyses showed that there was a significant indirect effect of proactive work behavior on detachment, via anxiety, for those who reported high levels of punitive supervision (+1 SD; $B = -.06, SE = .02, p < .01$). The indirect effect did not occur when participants reported moderate (at the mean; $B = -.03, SE = .02, p > .05$) or low levels of punitive supervision (-1 SD; $B = .01, SE = .02, p > .05$). We performed additional analyses to explore the region of significance of this interaction: the negative indirect effect of proactive behavior on detachment via anxiety becomes significant at 0.2 SD above the mean for punitive supervision. Therefore, both H_{8a} and H_{8b} were supported.

The introduction of punitive supervision in the model accounted for 8% of the between-person variance of the anxiety intercept; and 55% of between-person variance of the proactive work behavior-anxiety slope.

We performed follow-up cross-over analyses to test whether the hypothesized mediating pathways were stronger than possible alternative pathways (that is, proactive work behavior predicting vitality through anxiety, and detachment via perceived competence): our analyses suggested that the coefficients of the hypothesized pathways were consistently stronger than the non-hypothesized pathways.

In summary, our findings provide partial support for our dual-pathway model: for the energy-generating pathway, proactive work behavior was associated with vitality, and this effect was mediated by perceived competence. However, these effects were not moderated by punitive supervision. For the strain pathway, our results indicated that the negative indirect effect of proactive work behavior on bed-time detachment via anxiety occurred only for

DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

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3 participants who reported their supervisor as highly punitive. A summary of these effects is
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5 presented in Figure 3.
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9 Insert Figure 3 about here
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Discussion

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15 This study examined when and how proactivity can influence employees' daily well-
16 being via two distinct processes: an energy-generating pathway and a strain pathway.
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18 Understanding the well-being implications of proactivity is an important endeavor because
19 organizations are increasingly reliant upon their employees' proactivity to survive and thrive
20 in business. Yet if proactive work behavior is detrimental for employees' well-being, then
21 encouraging this behavior might backfire. Thus, understanding how proactive work behavior
22 affects well-being on a daily basis will inform organizations as to how to best manage the
23 proactive behavior of their workers.
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33 Our findings support the notion that proactivity can yield both positive and negative
34 consequences for employees (Bolino, Valcea, et al., 2010; Cangiano & Parker, 2015). We
35 proposed and found support for a dual-pathway model of proactivity in which engaging in
36 proactive work behavior can generate a sense of vitality but, at the same time, under
37 particular conditions, can also generate anxiety and interfere with employees' ability to
38 detach from work after hours.
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46 First, in an energy-generating pathway, we found that being proactive at work can
47 increase employees' vitality through perceived competence. That is, our findings indicated
48 that on days when people take charge and make things happen at work, they are more likely
49 to feel competent. Our results corroborate and extend the findings of Fay and Sonnentag
50 (2012), indicating that the desire to feel competent is not only an important motivator of
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DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

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3 proactivity, but also a consequence of this behavior. Our results are also consistent with the
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5 theorizing by Strauss and Parker (2014), who argued that being proactive at work can serve
6
7 as a means to experience a sense of achievement in one's work activities. Proactivity is likely
8
9 to be an important driver of perceived competence because it is a challenging behavior:
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11 engaging in challenging activities can promote a sense of mastery with the surrounding
12
13 environment, which in turn fuels one's perceptions of competence. Furthermore, proactive
14
15 goals often go above and beyond formally written rules and procedures and should therefore
16
17 boost one's level of perceived competence to a greater extent as opposed to solving an issue
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19 using standard work procedures. The self-initiated role of proactive behavior is also likely to
20
21 be important by allowing individuals to attribute any immediate positive outcomes to
22
23 themselves. For these reasons, the effects of daily proactive work behavior on perceived
24
25 competence are likely to be stronger than task performance. Future research could test these
26
27 theorized processes by which proactive behavior builds a sense of competence.
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31 Additionally, in line with Ryff (1989), and Deci and Ryan (2000), this study has
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33 provided support for the idea that experiencing a sense of competence at work is an important
34
35 determinant of an individual's sense of end-of-day vitality. Specifically, our data suggest that
36
37 daily fluctuations in perceptions of competence at work are associated with changes in
38
39 vitality. Further, our analyses showed that the effect of proactive work behavior on vitality
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41 occurred via perceived competence. These findings are theoretically important because they
42
43 suggest that experiencing a sense of competence is important for well-being because it
44
45 generates feelings of vitality, which has a number of desirable consequences for employees
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47 and organizations (Shirom, 2011). Interestingly, our findings suggest that these effects of
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49 proactive work behavior on employee's vitality are not affected by the extent to which one's
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51 supervisor is perceived as punitive.
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DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

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3 Second, we proposed and demonstrated that behaving proactively can generate
4
5 detrimental effects for employees' well-being. We focused on the circumstances under which
6
7 proactivity can generate anxiety and how, in turn, this negatively impacts employees'
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9 detachment after work. Our results showed that the extent to which employees perceive their
10
11 supervisor as punitive is important in shaping whether or not one's proactive behavior on a
12
13 given day generates anxiety. Participants whose supervisors tend to react negatively and
14
15 blame employees for their mistakes reported greater anxiety on days in which they engaged
16
17 in proactive behavior at work. Conversely, our findings showed that this negative effect did
18
19 not occur for employees whose supervisors were more 'tolerant' towards mistakes and errors.
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21 These results reinforce the idea that supervisors do play a role in the proactive process - not
22
23 only in shaping the level of proactivity (Wu & Parker, 2014) - but also in determining the
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25 well-being consequences of proactive behavior. Our findings are also consistent with the idea
26
27 that behaving proactively is a psychologically risky behavior and, as such, its negative
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29 consequences for well-being are distinct from related behaviors such as citizenship, as they
30
31 operate through different processes (Bindl & Parker, 2011; Koopman, Lanaj, & Scott, 2016;
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33 Parker & Bindl, 2017).

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37 Third, by showing the existence of two pathways by which proactive work behavior
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39 affects employees' well-being, our study helps to resolve previous contradictory arguments
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41 about the personal consequences of proactivity. On the one hand, proactive work behavior is
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43 positive for employees because it provides opportunities to experience a sense of competence
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45 and mastery in their work, which has an energizing effect on their well-being. On the other
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47 hand, it can create anxiety and undermine the ability to detach when supervisors are prone to
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49 reacting negatively to their mistakes. Overall, this study advances our understanding of the
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51 consequences of proactive work behavior by integrating and complementing the 'bright'
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DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

(Strauss & Parker, 2014) and the ‘dark’ (Bolino, Valcea, et al., 2010; Fay & Hüttges, 2016) sides of proactivity.

It is interesting to note that, contrary to our predictions, the positive effects of proactive behavior (energy-generating pathway) were unconditional, whereas the negative effects of proactive behaviors (strain pathway) occurred only for individuals with a punitive supervisor. One possible explanation for these findings is that the two pathways operate through different processes and time-scales. That is, perceptions of competence ensuing from proactive work behavior may be a more immediate (and almost automatic) outcome of engaging in proactive behavior, as a sense of control and environmental mastery should satisfy an innate psychological need for humans (Ryff, 1989), regardless of contextual variables. The ‘strain’ pathway, instead, might reflect a slightly longer-term process. For example, being proactive in the context of a ‘punitive’ supervisor is expected to generate anxiety which can be associated with a downward spiral of negative thoughts about one’s work, which can thus undermine the process of detachment later in the evening. From a slightly different viewpoint, the challenging nature of proactivity might also cancel out any potential dampening effects of punitive supervision. Specifically, although perceptions of how one’s supervisor reacts to mistakes may undermine one’s sense of competence when being proactive, on the other hand this may also heighten perceptions of challenge, which could level out any moderating effect of punitive supervision on the energy-generating pathway.

From a practical viewpoint, these results indicate that organizations might benefit from encouraging employees to engage in proactive activities – not only for the performance benefits – but because proactivity increases employees’ feelings of competence, which is energizing. Therefore, organizations may benefit from redesigning jobs in order to provide workers with more autonomy and control to facilitate the onset of proactive work behavior

DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

(Parker et al., 2006). Our results also corroborate Grant and colleagues' idea that it is important for supervisors "to create cultures, climates, norms, and reward systems that encourage proactive behaviors" (2009, p. 52). Our findings highlight that it is essential to train supervisors to deal effectively with the proactivity of their employees, including being tolerant of mistakes. If supervisors react negatively to mistakes, then engaging in psychologically risky behaviors such as proactivity may backfire by creating anxiety, lowering detachment and ultimately – one might speculate - reduce the occurrence of proactivity. Further, findings from this study support the idea that it is not sufficient to encourage employees to take charge and show personal initiative: organizations must create a psychologically safe climate where employees feel comfortable in taking risks without fearing negative consequence for themselves or their careers (Baer & Frese, 2003).

Strengths and Limitations

This study has several methodological strengths. First, the diary methodology allowed us to explore the dynamics of proactivity at the micro level, without sacrificing ecological validity (Ohly et al., 2010): proactive work behavior is arguably difficult to capture and manipulate in controlled settings, especially because of the self-initiation component. Longitudinal designs such as the current one provide researchers the opportunity to "capture life as it is lived" (Bolger & Laurenceau, 2013, p. 597) and assess self-initiated behaviors and their consequences in their natural setting. Second, because we person-centered our data, we were able to account for and minimize the effect of possible unmeasured individual and contextual differences that may influence the energetic consequences of proactive behavior (e.g., proactive personality, general levels of vitality, job resources).

Our study also has some limitations that might affect the generalizability and robustness of the findings. First, our data are based on self-report variables, which is known to cause common-method variance issues (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

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3 Self-reports are prone to self-bias, such as the bias that people tend to respond to questions in
4 ways that present them in a favorable light rather than reflect their actual behavior (Paulhus,
5 2002). To address this issue, we centered all the variables around the individual's own mean
6
7 to rule out the possible influence of response tendencies due to individual differences, thus
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9 partially addressing common-method variance. In addition, proactive behavior is ambiguous
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11 for observers to report and is not exempt from bias (Grant & al., 2009). Therefore, reports
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13 from others might not always be a more desirable way to assess employees' proactive work
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15 behavior, especially at the day level. Regarding the latter, it might be difficult for supervisors
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17 or others to detect daily variations in behavior unless they work in such a way they can
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19 closely observe the participant's behavior.
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24 A second limitation concerns uncertainty about causality. Our two mediating variables
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26 - perceived competence and anxiety - were measured at the same time as proactive work
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28 behavior and vitality (during the end-of-workday survey). Consequently, it could be
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30 speculated that when people feel competent, they are also more likely to engage in proactive
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32 work behavior. However, owing to its self-initiated nature, we contend that proactive
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34 behavior is best conceptualized as an antecedent of perceived competence, rather than as an
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36 outcome. In support of this argument, Fay and Sonnentag (2012) considered how experienced
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38 competence in core tasks predicts time spent on proactive work behavior in an experience-
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40 sampling study with employees. Their findings showed that low perceived competence
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42 predicted an increase in time spent on proactive behavior, thus implying a negative effect of
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44 competence on proactive work behavior. Conversely, in our study we found a positive
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46 relationship between proactive work behavior and competence, which supports our argument
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48 that people experience competence as a result of proactivity. In support of our causal claim,
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50 we controlled for employees' reported levels of competence the previous day, and showed
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52 that daily proactive behavior predicts a positive change in employees' perceived competence
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DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

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3 from one day to the next. The causal direction of the indirect link between proactive work
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5 behavior and vitality is also strengthened because we controlled for morning vitality.
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7 Moreover, for the strain pathway, the outcome variable - detachment - was measured in the
8
9 bed-time survey and was therefore temporally separated from all the other variables. This
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11 type of approach allows the alleviation of some of the concerns usually associated with
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13 common-method variance (Podsakoff et al., 2003). Overall, we believe that – although we
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15 acknowledge that it is not possible to draw conclusive causal inferences from our study - the
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17 proposed direction of causality is theoretically sound, and the longitudinal nature of the
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19 design helps to establish this direction. Indeed, future research is needed to better understand
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21 the causality of these relationships.
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Future Research

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26 This research highlights questions in need of further investigation. For example,
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28 although we found a significant indirect effect of proactive work behavior on vitality via
29
30 perceived competence, we did not detect main effects. An implication of this is the possibility
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32 that other moderators might affect the relationship between proactive work behavior and
33
34 vitality. For example, engaging in proactive work behavior for extrinsic reasons (e.g.,
35
36 impression management) might drain resources rather than generate them (Bolino, Valcea, et
37
38 al., 2010). Research could explore whether controlled forms of proactivity ('pressures' for
39
40 proactivity) are less likely to increase vitality than autonomous forms of proactive behaviors
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42 (Bolino, Hsiung, Harvey, & LePine, 2015; Bolino, Turnley, Gilstrap, & Suazo, 2010). In our
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44 view, feeling compelled by one's organizational environment to behave proactively might
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46 create a controlled motivation to be proactive, which is less self-determined and therefore less
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48 likely to be beneficial for well-being (Nix, Ryan, Manly, & Deci, 1999).
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53 Regarding the consequences of proactivity, it should be noted that not all proactive
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55 behaviors are 'created equal', and therefore different forms of proactivity may yield distinct
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DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

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3 well-being outcomes. For instance, changing a work procedure implemented by the
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5 supervisor is arguably more psychologically risky (as it may be perceived as a personal attack
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7 to de-legitimize the leader) compared to proactively helping a colleague without being
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9 instructed to do so. It could be argued that the riskier a proactive behavior is, the greater the
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11 possibility that it may generate anxiety in the context of a punitive supervisor. Hence, future
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13 research could explore how different types of proactive work behavior (e.g., proactive
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15 helping vs. taking charge) impact employees' well-being and how different supervision styles
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17 shape such outcomes.

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20 Other factors that could be explored in future research include the impact of
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22 successful execution (Cangiano & Parker, 2015). Although in this study we considered how
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24 employees' perceptions of punitive supervision moderate the extent to which daily
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26 proactivity causes anxiety, we did not assess whether successfully completing the activity (or
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28 achieving the desired results) decreases the sense of anxiety. For instance, failing to achieve
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30 one's proactive goal could significantly weaken the effect of proactivity on perceived
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32 competence. Furthermore, we focused on negative supervisor reactions to mistakes: it is
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34 plausible to expect that receiving praise and intrinsic incentives for one's proactive behavior
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36 is likely to generate positive outcomes for employees' well-being. For example, receiving
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38 positive feedback and appreciation from coworkers and supervisors might increase the
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40 individual's sense of self-esteem and self-efficacy, as well as enhancing feelings of
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42 competence and mastery.

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45 A further direction concerns the longer-term effects of proactive work behavior on
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47 well-being. We focused on the daily effects of proactive behavior on short-term well-being.
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49 In the long-term the affective outcomes considered in this study may be exacerbated and
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51 create more prominent effects. For example, an individual feeling anxious due to engaging in
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53 proactive work behavior in the context of a supervisor that reacts negatively to mistakes,
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DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

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3 might in the end need to change strategy and adopt a more passive/reactive approach at work
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5 to reduce his/her anxiety. From a darker viewpoint, the sense of anxiety induced by being
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7 proactive with a punitive supervisor may result in burnout or increased turnover intentions.
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9 Future research could explore how proactive work behavior may trigger virtuous or vicious
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11 spirals for employees' well-being over time.
12

Conclusion

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15 Our study suggests that the well-being consequences of employees' proactivity are
16
17 multi-faceted. In essence, proactive work behavior has a 'bright' side for employees, but can
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19 also have a 'dark' one. Understanding how proactivity influences well-being can shed light
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21 on the way in which we should promote this behavior for it to be sustainable in the long-run.
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23 Although proactivity is an intrinsically motivating behavior that may help employees to feel
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25 competent in their work, the way in which supervisors react to mistakes and errors could
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27 impact on whether proactive behaviors also generate anxiety.
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DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

References

- 1
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3
4
5
6
7 Baer, M., & Frese, M. (2003). Innovation is not enough: Climates for initiative and
8
9 psychological safety, process innovations, and firm performance. *Journal of*
10
11 *Organizational Behavior*, 24(1), 45-68.
- 12
13 Bateman, T. S., & Crant, J. M. (1993). The proactive component of organizational behavior:
14
15 A measure and correlates. *Journal of Organizational Behavior*, 14(2), 103-118.
- 16
17 Belschak, F. D., & Hartog, D. N. (2010). Pro-self, prosocial, and pro-organizational foci of
18
19 proactive behaviour: Differential antecedents and consequences. *Journal of*
20
21 *Occupational and Organizational Psychology*, 83(2), 475-498.
- 22
23 Bindl, U. K., & Parker, S. K. (2011). Proactive work behavior: Forward-thinking and change-
24
25 oriented action in organizations. In *APA handbook of industrial and organizational*
26
27 *psychology* (Vol. 2, pp. 567-598). Washington, DC, US: American Psychological
28
29 Association.
- 30
31 Binnewies, C., Sonnentag, S., & Mojza, E. J. (2010). Recovery during the weekend and
32
33 fluctuations in weekly job performance: A week-level study examining intra-
34
35 individual relationships. *Journal of Occupational and Organizational Psychology*,
36
37 83(2), 419-441.
- 38
39 Blickle, G., Witzki, A., & Schneider, P. B. (2009). Self-initiated mentoring and career
40
41 success: A predictive field study. *Journal of Vocational Behavior*, 74(1), 94-101.
- 42
43 Bolger, N., & Laurenceau, J. P. (2013). *Intensive longitudinal methods: An introduction to*
44
45 *diary and experience sampling research*. New York, NY: Guilford Press.
- 46
47 Bolino, M. C., Hsiung, H. H., Harvey, J., & LePine, J. A. (2015). "Well, I'm tired of tryin'!"
48
49 Organizational citizenship behavior and citizenship fatigue. *Journal of Applied*
50
51 *Psychology*, 100(1), 56-74.
- 52
53
54
55
56
57
58
59
60

DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

- 1
2
3 Bolino, M. C., Turnley, W. H., Gilstrap, J. B., & Suazo, M. M. (2010). Citizenship under
4 pressure: What's a "good soldier" to do? *Journal of Organizational Behavior*, 31(6),
5 835-855.
6
7
8
9 Bolino, M. C., Valcea, S., & Harvey, J. (2010). Employee, manage thyself: The potentially
10 negative implications of expecting employees to behave proactively. *Journal of*
11 *Occupational and Organizational Psychology*, 83(2), 325-345.
12
13
14
15 Brien, M., Forest, J., Mageau, G. A., Boudrias, J. S., Desrumaux, P., Brunet, L., & Morin, E.
16 M. (2012). The basic psychological needs at work scale: Measurement invariance
17 between Canada and France. *Applied Psychology: Health and Well-Being*, 4(2), 167-
18 187.
19
20
21
22
23 Cangiano, F., & Parker, S. K. (2015). Proactivity for mental health and well-being. In S.
24 Clarke, T. M. Probst, F. Guldenmund, & J. Passmore (Eds.), *The Wiley Blackwell*
25 *Handbook of the Psychology of Occupational Safety and Workplace Health* (pp. 228-
26 250). Chichester, UK: John Wiley & Sons, Ltd.
27
28
29
30
31
32 Clegg, C., Unsworth, K., Epitropaki, O., & Parker, G. (2002). Implicating trust in the
33 innovation process. *Journal of Occupational and Organizational Psychology*, 75(4),
34 409-422.
35
36
37
38
39 Crant, M. J. (2000). Proactive behavior in organizations. *Journal of Management*, 26(3), 435-
40 462.
41
42
43
44 Danna, K., & Griffin, R. W. (1999). Health and well-being in the workplace: A review and
45 synthesis of the literature. *Journal of Management*, 25(3), 357-384.
46
47
48 Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and
49 the self-determination of behavior. *Psychological Inquiry*, 11(4), 227-268.
50
51
52 Deci, E. L., Ryan, R. M., Gagné, M., Leone, D. R., Usunov, J., & Kornazheva, B. P. (2001).
53 Need satisfaction, motivation, and well-being in the work organizations of a former
54
55
56

DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

- 1
2
3 eastern bloc country: A cross-cultural study of self-determination. *Personality and*
4
5 *Social Psychology Bulletin*, 27(8), 930-942.
6
- 7 Detert, J. R., & Treviño, L. K. (2010). Speaking up to higher-ups: How supervisors and skip-
8
9 level leaders influence employee voice. *Organization Science*, 21(1), 249-270.
10
- 11 Dollard, M. F., & Bakker, A. B. (2010). Psychosocial safety climate as a precursor to
12
13 conducive work environments, psychological health problems, and employee
14
15 engagement. *Journal of Occupational and Organizational Psychology*, 83(3), 579-
16
17 599.
18
- 19 Eysenck, M. W., MacLeod, C., & Mathews, A. (1987). Cognitive functioning and anxiety.
20
21 *Psychological research*, 49(2-3), 189-195.
22
23
- 24 Fay, D., & Frese, M. (2001). The concept of personal initiative: An overview of validity
25
26 studies. *Human Performance*, 14(1), 97-124.
27
28
- 29 Fay, D., & Hüttges, A. (2016). Drawbacks of proactivity: Effects of daily proactivity on daily
30
31 salivary cortisol and subjective well-being. *Journal of Occupational Health*
32
33 *Psychology*, Advance online publication. doi:10.1037/ocp0000042
34
- 35 Fay, D., & Sonnentag, S. (2012). Within-person fluctuations of proactive behavior: How
36
37 affect and experienced competence regulate work behavior. *Human Performance*,
38
39 25(1), 72-93.
40
- 41 Fresco, D. M., Frankel, A. N., Mennin, D. S., Turk, C. L., & Heimberg, R. G. (2002).
42
43 Distinct and overlapping features of rumination and worry: The relationship of
44
45 cognitive production to negative affective states. *Cognitive Therapy and Research*,
46
47 26(2), 179-188.
48
49
- 50 Frese, M., & Fay, D. (2001). Personal initiative: An active performance concept for work in
51
52 the 21st century. *Research in Organizational Behavior*, 23, 133-187.
53
54
55
56
57
58
59
60

DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

- 1
2
3 Fuller, B., & Marler, L. E. (2009). Change driven by nature: A meta-analytic review of the
4
5 proactive personality literature. *Journal of Vocational Behavior*, 75(3), 329-345.
6
7 Grant, A. M., & Ashford, S. J. (2008). The dynamics of proactivity at work. *Research in*
8
9 *Organizational Behavior*, 28, 3-34.
10
11 Grant, A. M., Parker, S. K., & Collins, C. (2009). Getting credit for proactive behavior:
12
13 Supervisor reactions depend on what you value and how you feel. *Personnel*
14
15 *Psychology*, 62(1), 31-55.
16
17 Griffin, M. A., Neal, A., & Parker, S. K. (2007). A new model of work role performance:
18
19 Positive behavior in uncertain and interdependent contexts. *Academy of Management*
20
21 *Journal*, 50(2), 327-347.
22
23 Hamblin, R. L. C. F. p. d. S. (1964). Punitive and Non-Punitive Supervision. *Social*
24
25 *Problems*, 11(4), 345-359. doi:10.2307/799190
26
27
28 Hofmann, D. A., & Gavin, M. B. (1998). Centering decisions in hierarchical linear models:
29
30 Implications for research in organizations. *Journal of Management*, 24(5), 623-641.
31
32 Kish-Gephart, J. J., Detert, J. R., Treviño, L. K., & Edmondson, A. C. (2009). Silenced by
33
34 fear: The nature, sources, and consequences of fear at work. *Research in*
35
36 *Organizational Behavior*, 29, 163-193.
37
38
39 Koopman, J., Lanaj, K., & Scott, B. A. (2016). Integrating the bright and dark sides of OCB:
40
41 A daily investigation of the benefits and costs of helping others. *Academy of*
42
43 *Management Journal*, 59(2), 414-435.
44
45
46 MacLeod, C., & Mathews, A. (2012). Cognitive bias modification approaches to anxiety.
47
48 *Annual Review of Clinical Psychology*, 8, 189-217.
49
50 Massimini, F., & Carli, M. (1988). The systematic assessment of flow in daily experience. In
51
52 M. Csikszentmihalyi & I. S. Csikszentmihalyi (Eds.), *Optimal experience*:
53
54
55
56
57
58
59
60

DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

- 1
2
3 *Psychological studies of flow in consciousness* (pp. 266-287). New York, NY, US:
4
5 Cambridge University Press.
6
7 Mellings, T. M. B., & Alden, L. E. (2000). Cognitive processes in social anxiety: The effects
8
9 of self-focus, rumination and anticipatory processing. *Behaviour research and*
10
11 *therapy*, 38(3), 243-257.
12
13 Milyavskaya, M., & Koestner, R. (2011). Psychological needs, motivation, and well-being: A
14
15 test of self-determination theory across multiple domains. *Personality and Individual*
16
17 *Differences*, 50(3), 387-391.
18
19 Muris, P., Roelofs, J., Meesters, C., & Boomsma, P. (2004). Rumination and worry in
20
21 nonclinical adolescents. *Cognitive Therapy and Research*, 28(4), 539-554.
22
23 Muthén, L. K., & Muthén, B. O. (1998-2015). *Mplus User's Guide (Seventh Edition)*. Los
24
25 Angeles, CA: Muthén & Muthén.
26
27
28 Nix, G. A., Ryan, R. M., Manly, J. B., & Deci, E. L. (1999). Revitalization through self-
29
30 regulation: The effects of autonomous and controlled motivation on happiness and
31
32 vitality. *Journal of Experimental Social Psychology*, 35(3), 266-284.
33
34
35 Ohly, S., Sonnentag, S., Niessen, C., & Zapf, D. (2010). Diary studies in organizational
36
37 research: An introduction and some practical recommendations. *Journal of Personnel*
38
39 *Psychology*, 9(2), 79-93.
40
41
42 Parker, S. K. (2000). From passive to proactive motivation: The importance of flexible role
43
44 orientations and role breadth self-efficacy. *Applied Psychology*, 49(3), 447-469.
45
46 Parker, S. K., & Bindl, U. K. (2017). *Proactivity at work: Making things happen in*
47
48 *organizations*. GB: Routledge.
49
50 Parker, S. K., Bindl, U. K., & Strauss, K. (2010). Making things happen: A model of
51
52 proactive motivation. *Journal of Management*, 36(4), 827-856.
53
54
55
56
57
58
59
60

DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

- 1
2
3 Parker, S. K., & Collins, C. G. (2010). Taking stock: Integrating and differentiating multiple
4 proactive behaviors. *Journal of Management*, 36(3), 633-662.
5
6
7 Parker, S. K., Williams, H. M., & Turner, N. (2006). Modeling the antecedents of proactive
8 behavior at work. *Journal of Applied Psychology*, 91(3), 636-652. doi:10.1037/0021-
9 9010.91.3.636
10
11
12
13 Paulhus, D. L. (2002). Socially desirable responding: The evolution of a construct. In H. I.
14 Braun, D. N. Jackson, & D. E. Wiley (Eds.), *The role of constructs in psychological*
15 *and educational measurement* (pp. 49-69). Mahwah, NJ: Lawrence Erlbaum.
16
17
18
19 Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method
20 biases in behavioral research: A critical review of the literature and recommended
21 remedies. *Journal of Applied Psychology*, 88(5), 879-903.
22
23
24
25
26
27 Posner, J., Russell, J. A., & Peterson, B. S. (2005). The circumplex model of affect: An
28 integrative approach to affective neuroscience, cognitive development, and
29 psychopathology. *Development and psychopathology*, 17(3), 715-734.
30
31
32
33 doi:10.1017/s0954579405050340
34
35
36 Ryan, R. M., Bernstein, J. H., & Brown, K. W. (2010). Weekends, work, and well-being:
37 Psychological need satisfactions and day of the week effects on mood, vitality, and
38 physical symptoms. *Journal of Social and Clinical Psychology*, 29(1), 95-122.
39
40
41
42 Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic
43 motivation, social development, and well-being. *The American Psychologist*, 55(1),
44 68-78.
45
46
47
48 Ryan, R. M., & Frederick, C. (1997). On energy, personality, and health: Subjective vitality
49 as a dynamic reflection of well-being. *Journal of Personality*, 65(3), 529-565.
50
51
52
53
54
55
56
57
58
59
60

DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

- 1
2
3 Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of
4 psychological well-being. *Journal of Personality and Social Psychology*, 57(6), 1069-
5 1081.
6
7
8
9 Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work
10 engagement with a short questionnaire a cross-national study. *Educational and*
11 *Psychological Measurement*, 66(4), 701-716.
12
13
14
15 Segerstrom, S. C., Tsao, J. C. I., Alden, L. E., & Craske, M. G. (2000). Worry and
16 rumination: Repetitive thought as a concomitant and predictor of negative mood.
17 *Cognitive Therapy and Research*, 24(6), 671-688.
18
19
20 Sheldon, K. M., Ryan, R. M., & Reis, H. T. (1996). What makes for a good day? Competence
21 and autonomy in the day and in the person. *Personality and Social Psychology*
22 *Bulletin*, 22, 1270-1279.
23
24
25
26
27
28 Shirom, A. (2011). Vigor as a positive affect at work: Conceptualizing vigor, its relations
29 with related constructs, and its antecedents and consequences. *Review of General*
30 *Psychology*, 15(1), 50-64.
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

- 1
2
3 Sonnentag, S. (2012). Psychological detachment from work during leisure time the benefits
4 of mentally disengaging from work. *Current Directions in Psychological Science*,
5 21(2), 114-118.
6
7
8
9 Sonnentag, S., & Bayer, U.-V. (2005). Switching off mentally: Predictors and consequences
10 of psychological detachment from work during off-job time. *Journal of Occupational*
11 *Health Psychology*, 10(4), 393-414.
12
13
14
15 Sonnentag, S., Binnewies, C., & Mojza, E. J. (2010). Staying well and engaged when
16 demands are high: The role of psychological detachment. *Journal of Applied*
17 *Psychology*, 95(5), 965-976.
18
19
20
21 Sonnentag, S., & Fritz, C. (2015). Recovery from job stress: The stressor - detachment model
22 as an integrative framework. *Journal of Organizational Behavior*, 36(S1), S72-S103.
23
24
25 Sonnentag, S., & Krueel, U. (2006). Psychological detachment from work during off-job time:
26 The role of job stressors, job involvement, and recovery-related self-efficacy.
27 *European Journal of Work and Organizational Psychology*, 15(2), 197-217.
28
29
30
31 Sonnentag, S., Mojza, E. J., Binnewies, C., & Scholl, A. (2008). Being engaged at work and
32 detached at home: A week-level study on work engagement, psychological
33 detachment, and affect. *Work & Stress*, 22(3), 257-276.
34
35
36
37 Sonnentag, S., & Starzyk, A. (2015). Perceived prosocial impact, perceived situational
38 constraints, and proactive work behavior: Looking at two distinct affective pathways.
39 *Journal of Organizational Behavior*, 36(6), 806-824.
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

- 1
2
3 Thomas, J. P., Whitman, D. S., & Viswesvaran, C. (2010). Employee proactivity in
4 organizations: A comparative meta-analysis of emergent proactive constructs. *Journal*
5 *of Occupational and Organizational Psychology*, 83(2), 275-300.
6
7
8
9 Tornau, K., & Frese, M. (2013). Construct clean-up in proactivity research: A meta-analysis
10 on the nomological net of work-related proactivity concepts and their incremental
11 validities. *Applied Psychology*, 62(1), 44-96.
12
13
14
15 Vos, A., Clippeler, I., & Dewilde, T. (2009). Proactive career behaviours and career success
16 during the early career. *Journal of Occupational and Organizational Psychology*,
17 82(4), 761-777.
18
19
20
21
22 Warr, P. (1990). The measurement of well-being and other aspects of mental health. *Journal*
23 *of Occupational Psychology*, 63(3), 193-210. doi:10.1111/j.2044-
24 8325.1990.tb00521.x
25
26
27
28
29 Westman, M., & Eden, D. (1997). Effects of a respite from work on burnout: vacation relief
30 and fade-out. *Journal of Applied Psychology*, 82(4), 516.
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
- Xanthopoulou, D., Bakker, A. B., & Ilies, R. (2012). Everyday working life: Explaining
within-person fluctuations in employee well-being. *Human Relations*, 65(9), 1051-
1069.
- Yeo, G. B., & Neal, A. (2006). An examination of the dynamic relationship between self-
efficacy and performance across levels of analysis and levels of specificity. *Journal of*
Applied Psychology, 91(5), 1088-1101.

DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

Zickar, M. J., & Slaughter, J. E. (1999). Examining creative performance over time using hierarchical linear modeling: An illustration using film directors. *Human Performance, 12*(3-4), 211-230.

DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

Table 2. Means, Standard Deviations and Intercorrelations of study variables.

Variables	M	SD	1	2	3	4	5	6	7	8
Between-person level										
1. Punitive supervision	2.38	.87	-							
Within-person level										
2. Proactive work behavior (end-of-workday)	3.26	.87	.05	-	.33**	.07	-.03	.26**	-.05	.09
3. Perceived competence (end-of-workday)	3.54	.85	-.22*	.59**	-	.07	-.05	.26**	-.13**	.10*
4. Vitality (morning)	3.16	1.00	-.13	.24*	.30**	-	-.12*	.15*	-.07	.04
5. Anxiety (morning)	1.50	.69	.11	-.04	-.28**	-.23*	-	-.08*	.18*	-.12*
6. Vitality (end-of-workday)	3.00	1.00	-.11	.45**	.46**	.46**	-.18	-	-.18**	.13*
7. Anxiety (end-of-workday)	1.53	.81	.17	-.06	-.30**	-.11	.64**	-.32**	-	-.23**
8. Detachment (bed-time)	3.31	1.04	-.23*	.10	.33**	.33**	-.39**	.45**	-.40**	-

Note. Correlations below the diagonal represent the between-person level (N = 90-94) whereas correlations above the diagonal are at the within-person level (N = 538-560 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).

* $p < .05$. ** $p < .01$.

DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

Variables	χ^2	<i>df</i>	SCF	CFI	TLI	RMSEA	S-B χ^2	<i>df</i>	<i>p</i>
<i>Models</i>									
1M: Five-factor model	107.245	55	1.781	0.98	0.972	0.045			
2M: Four-factor model	483.617	59	1.790	0.838	0.786	0.123	352.538	4	.001
3M: Three-factor model	695.044	62	1.734	0.759	0.696	0.146	743.161	7	.001
4M: Two-factor model	998.588	64	1.735	0.644	0.566	0.175	1060.292	9	.001
5M: One-factor model	1423.391	65	1.671	0.482	0.379	0.209	2052.047	10	.001

Table 1. Results of multi-level confirmatory factor analysis.

Note: SCF = scale correction factor; CFO = comparative fit index; TLI = Tucker-Lewis index; RMSEA = root mean square error of approximation. S-B χ^2 = Satorra-Bentler χ^2 referring to the comparison with the five-factor model. 2M: vitality (end-of workday) and anxiety (end-of workday) loading on one common factor. 3M: vitality (end-of workday), anxiety (end-of workday) and perceived competence loading on one common factor. 4M: vitality (end-of workday), anxiety (end-of workday), perceived competence and detachment loading on one common factor. 5M: vitality (end-of workday), anxiety (end-of workday), proactive work behavior, perceived competence and detachment loading on one single factor.

DAILY OUTCOMES OF PROACTIVE WORK BEHAVIOR

Table 3. Unstandardized coefficients from multi-level path analysis.

	Estimate	SE	z	Estimate	SE	z
	Predicting perceived competence			Predicting anxiety end-of-workday		
Within level						
<i>Intercept</i>	0.001	0.001	5.223	0.009	0.007	1.294
Vitality in the morning	-0.047	0.101	-0.461	-	-	-
Anxiety in the morning	-	-	-	0.520	0.125	4.155***
Lagged perceived competence (previous day)	-0.100	0.075	-1.336	-	-	-
Proactive work behavior (PWB)	0.504	0.080	6.276***	0.140	0.079	1.779
Residual variance	0.257	0.054	4.757***	0.364	0.081	4.484***
Between level						
<i>Intercept</i>	3.625	0.080	45.273	1.512	0.073	20.728
Punitive supervision (PS)	-0.074	0.119	-0.618	-0.151	0.170	-1.140
PWB*PS	-0.077	0.087	-0.885	0.174	0.081	2.150*
Residual variance	0.354	0.084	4.194***	0.207	0.118	1.758
	Predicting end-of-workday vitality			Predicting bed-time detachment		
Within level						
<i>Intercept</i>	2.403	0.180	13.350	3.428	0.128	26.757
Vitality in the morning	0.169	0.075	2.255*	-	-	-
Anxiety in the morning	-	-	-	-0.035	0.143	-0.248
Perceived competence	0.217	0.068	3.178***	-	-	-
End-of-workday anxiety	-	-	-	-0.204	0.072	-2.829**
Residual variance	0.303	0.040	7.482***	0.339	0.079	4.308***

Note: Estimates are unstandardized, resulting from an overall analysis including the prediction of perceived competence, end-of-workday vitality, end-of workday anxiety and bed-time detachment in one model. The between-level predictor (punitive supervision) was centered at the grand mean, all other predictors were person-mean centered.
* $p < .05$. ** $p < .01$. *** $p < .001$.

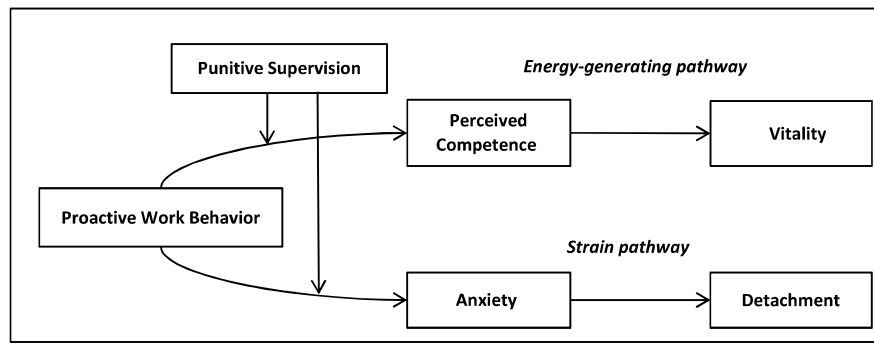


Figure 1. Hypothesized research model.

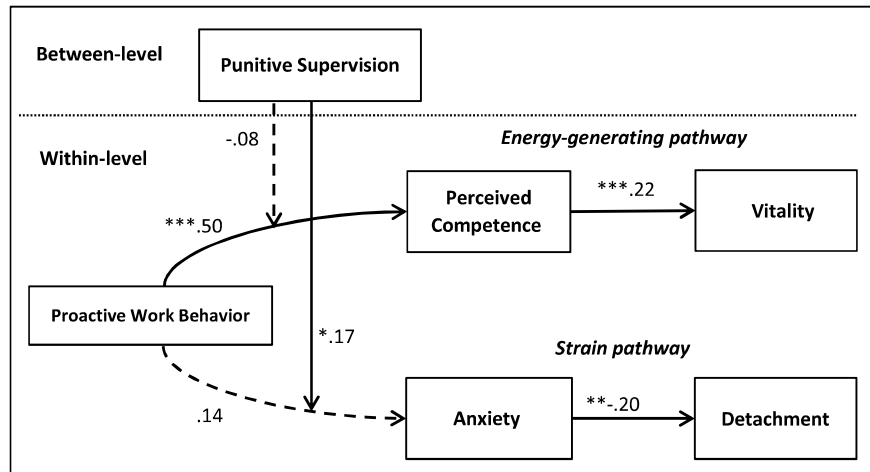


Figure 3. Summary of the daily effects of proactive work behavior on vitality (via perceived competence) and detachment (via anxiety).

* $p < .05$. ** $p < .01$. *** $p < .001$.

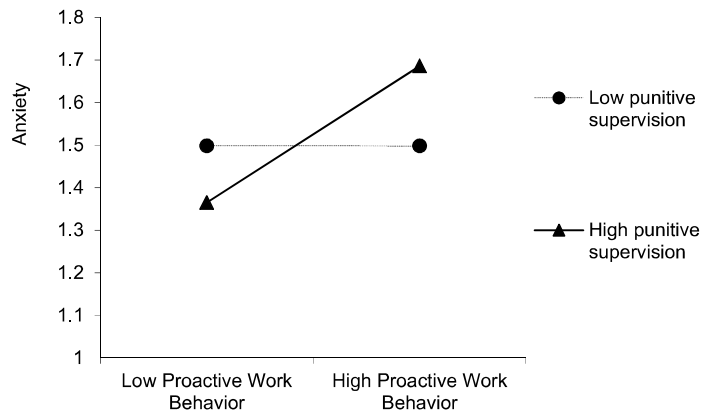


Figure 2. Perceptions of punitive supervision as a moderator of the within-subject relationship between proactive work behavior and work anxiety, controlling for morning anxiety.