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# Using Playful Work Design to Deal With Hindrance Job Demands: A Quantitative Diary Study

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All job demands are exhausting, but hindrance job demands are particularly stressful since they also impede personal growth and goal attainment. In the present study, we use the dual perspective model to distinguish between agency hindrance job demands (i.e., task-related stressors that cost energy and offer few opportunities for mastery and competence) and communion hindrance job demands (i.e., social stressors that cost energy and limit the probability of experiencing close relationships). We hypothesize that daily agency hindrance job demands and daily communion hindrance job demands have unique indirect and negative associations with daily job performance (i.e., in-role and extra-role performance behaviors) through daily work engagement. In addition, we used theories about proactivity and play to hypothesize that the association of both types of hindrance job demands with work engagement will be moderated by playful work design—the process of proactively creating conditions during work activities that foster competition or fun. Employees from various occupational backgrounds filled out an online questionnaire at the end of each workday ( $N = 202 \times 5.61$  days = 1,133 observations). The results of structural equation modeling analyses supported our mediation hypotheses. In addition, as predicted, the negative association between agency hindrance job demands and work engagement was buffered on days when employees designed competition, whereas the negative relation between communion hindrance job demands and work engagement was buffered on days when employees designed fun. We discuss the theoretical and practical implications of these findings.

*Keywords:* agency, communion, hindrance job demands, playful work design, work engagement

Effective job performance requires two fundamental modalities, namely agency and communion (Abele & Wojciszke, 2014). Agency refers to an individual's striving to master the environment and experience competence, whereas communion refers to a person's desire to closely relate to and cooperate with others (Bakan, 1966). When employees take care of their own work-related goals as well as the interests of their coworkers, the organization as a whole can flourish. According to Deci and Ryan (2000), people inherently desire psychological growth and integration; they have a deep-seated need to experience mastery and connect with others. As a consequence, employees feel most engaged in their work (i.e., vigorous, dedicated, and immersed) on the days when they achieve their goals and experience affectionate, interpersonal relationships (Bakker & Oerlemans, 2019).

Unfortunately, from time to time, employees in various occupational settings face work activities that frustrate the experience of

agency and communion (Ohly & Schmitt, 2015). This is for example the case when a retail worker has a quiet day without customers, when a flight attendant is confronted with disruptive and unruly passenger behavior, or when a programmer works in solitude on a new software application. Despite the substantial contribution of these so-called daily hindrance job demands to employees' daily subjective well-being and job performance (Mazzola & Disselhorst, 2019), little theory and research exist on how employees may proactively deal with such adverse work circumstances. For instance, while previous studies indicate that different circumstances necessitate different resources (de Jonge & Dormann, 2006), little is known about which behaviors fit certain types of hindrance job demands. To fill this gap, the current study aims to answer the following question: How can employees stay engaged and perform well when confronted with hindrance job demands that thwart agency and communion?

In this study, we propose playful work design (PWD) as an effective strategy to deal with hindrance job demands that impede agency (e.g., monotony, simplicity) and communion (e.g., conflict, isolation). PWD refers to the process of proactively creating conditions during work activities that foster competition and fun (Bakker, Scharp, et al., 2020; Scharp et al., 2019). We propose that on days when hindrance job demands frustrate agency and communion, designing one's tasks to be more challenging and more fun, respectively, will help protect work engagement. This means that, for example, retail workers can stay engaged during work and maintain their performance on days when they lack agency (e.g., when working on simple, monotonous tasks such as folding clothes) by creating specific challenges such as striving to fold ten shirts per minute. Similarly, flight attendants may sustain their

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engagement and performance levels on days when work thwarts communion (e.g., when work involves conflict or emotional demands) by proactively using humor and imagination, for example, imagining a funny reason for the disruptive behavior of a passenger.

We aim to make several theoretical contributions. First, we advance the literature on hindrance job demands (Cavanaugh et al., 2000) by differentiating between two types of hindrance job demands. Specifically, we distinguish daily agency hindrance job demands from daily communion hindrance job demands (Abele & Wojciszke, 2014; Ohly & Schmitt, 2015). By expanding the dimensionality of hindrance job demands, we enrich our conceptual understanding of *how* and *when* daily hindrance job demands impair daily engagement and daily performance. Second, we contribute to the literature on proactivity by examining a new form of proactive work behavior: the use of play as a strategy to transform the daily experience of work (i.e., PWD; Scharp et al., 2019). Using the daily diary methodology, we investigate *when* employees may best use PWD to proactively foster their work engagement and performance. Accordingly, we respond to calls for research on the association of play during work with motivation and job performance (Bakker & Van Woerkom, 2017; Mainemelis & Ronson, 2006; Petelczyc et al., 2018). Third, we contribute to the emerging literature on PWD, by showing how two different PWD strategies, designing competition and designing fun, are uniquely suited to deal with agency hindrance job demands and communion hindrance job demands, respectively, day to day. This analysis helps to establish the discriminant validity of the two PWD dimensions. Taken together, our findings may hold important implications for the job demands literature and reveal which bottom-up strategies employees may use on demanding workdays to maintain their enthusiasm and protect their job performance. We aim to offer practical knowledge about how and when employees may take initiatives to influence their subjective experience of work and job performance.

## Theoretical Background

### Agency Hindrance Job Demands Versus Communion Hindrance Job Demands

Every day, employees face a wide variety of job demands— aspects of the job associated with certain physiological and psychological costs (Bakker & Demerouti, 2017). While all job demands are taxing, hindrance job demands especially frustrate employees as they impede personal growth and goal attainment (Cavanaugh et al., 2000; Mazzola & Disselhorst, 2019). We draw on the dual perspective model of agency and communion (Abele & Wojciszke, 2014) to advance our knowledge regarding the dimensionality of hindrance job demands. The distinction between agency and communion is similar to the dimensionality in research that investigates task-related and social stressors (e.g., Igit et al., 2017; Kamarck et al., 2005; Schaefer & Moos, 1993). We propose that the content of hindrance job demands may differ substantially in terms of agency and communion. More specifically, we define agency hindrance job demands as task-oriented job demands that limit opportunities for goal-achievement and task-functioning, for example, task simplicity and job monotony (De Charms, 1968;

White, 1959). In contrast, we define communion hindrance job demands as social stressors that cost energy and impede relationships and social functioning such as interpersonal conflict and isolation (Baumeister & Leary, 1995). Since agency hindrance job demands and communion hindrance job demands undermine human functioning (Deci & Ryan, 2000; Ohly & Schmitt, 2015), daily occurrences of these hindrance job demands may hold important implications for employees' job performance.

To proficiently perform daily primary work activities, it is vital that employees are engaged in their work—i.e., have a positive, work-related state of mind characterized by vigor, dedication, and absorption (Breevaart et al., 2012; Schaufeli & Bakker, 2010). As Bakker (2011) explained, engaged employees have the necessary energy and willingness to invest this energy into their work. Work engagement is equally important for daily work behaviors that are not formally required such as helping a colleague (i.e., extra-role performance; Borman & Motowidlo, 1997). The reason is that when employees are engaged with work, they experience an action tendency that promotes altruistic and helpful acts (Karatepe, 2013; Spector & Fox, 2002). Unsurprisingly, research indicates that employees' energy is drained on days when they encounter agency hindrance job demands and communion hindrance job demands (Breevaart & Bakker, 2018; Ohly & Schmitt, 2015). While agency hindrance job demands and communion hindrance job demands both drain energy, they may do so through different psychological mechanisms.

The sense of agency derives from the experience of causing meaningful results and believing in one's ability to produce such results (De Charms, 1968; White, 1959). These experiences and beliefs may be thwarted on days when employees are confronted with agency hindrance job demands. Examples of agency hindrance job demands include work underload and job monotony because these situations generally lack opportunities to produce meaningful results. For instance, in a study among educational professionals, Fernet et al. (2013) showed that employees who did not know what to do (i.e., an agency hindrance job demand) also reported feeling less competent and accomplished. Unlike agency, the sense of communion builds on the experience of close relationships and belonging to a group (Baumeister & Leary, 1995). The experience of daily communion hindrance job demands such as interpersonal conflict or social isolation may severely undermine the sense of communion because such events impair social bonds and intensify the feeling of not belonging. To illustrate, in a study including various occupations, employees who had an abusive supervisor (i.e., a communion hindrance job demand) primarily felt less part of a group at work and less connected with their colleagues (Liu et al., 2019). When agency and communion are undermined, work engagement decreases due to a perceived lack of meaningful results and connection (Csikszentmihalyi, 1975; Sulea et al., 2012; Van den Broeck et al., 2016). Hence, we predict that on days when employees are confronted with agency and communion hindrance job demands, they will be less willing and able to invest effort into in- and extra-role performance behaviors because their work engagement suffers.

*Hypothesis 1:* Daily agency hindrance job demands are negatively related to daily in-role job performance (H1a) and

daily extra-role job performance (H1b) through daily work engagement.

*Hypothesis 2:* Daily communion hindrance job demands are negatively related to daily in-role job performance (H2a) and daily extra-role job performance (H2b) through daily work engagement.

### **Playfully Redesigning Hindrance Job Demands**

While hindrance job demands often undermine psychological well-being, positive events that match the content of hindrance job demands in terms of agency and communion are proposed to buffer their negative effects (Ohly & Schmitt, 2015). This reasoning is consistent with the matching principle stating that the buffering potential of resourceful aspects of work increases when their content matches the stressor (de Jonge & Dormann, 2006). For example, research has shown that feeling efficacious and knowledgeable is particularly important when employees are confronted with agency hindrance job demands, for instance, when work is ambiguous and mentally exhausting (de Jonge & Dormann, 2006; Panatik et al., 2011). Similarly, previous studies have shown that colleague support is particularly important for well-being when employees are dealing with communion hindrance job demands including pupil misbehavior, emotional demands, and work–family conflict (Bakker et al., 2007; de Jonge et al., 2008; Liu et al., 2015). Recent advances in our knowledge suggest that employees may use proactive strategies to foster positive work events (Bakker & Van Woerkom, 2017; Parker et al., 2006). These proactive strategies refer to self-initiated behavior that aims to improve the situation or oneself (Parker et al., 2006). Building on the matching principle, such proactive behavior, may prove especially beneficial when the behavior matches the content of the hindrance job demands in terms of agency and communion.

PWD is one of the proactive behavioral strategies employees may use to foster positive agency events and positive communion events during work. PWD is the proactive, cognitive–behavioral orientation that employees engage in to design competition and design fun during work activities (Bakker, Scharp, et al., 2020; Scharp et al., 2019). PWD integrates (a) research that describes proactive behavior as self-starting behavior focused on changing the self and the environment (Parker et al., 2006); (b) literature that conceptualizes play as a behavioral orientation to an activity (Mainemelis & Ronson, 2006); and (c) recent advances in research on “work design” (Parker, 2014; Parker et al., 2017). While the literature on “job design” mainly focused on how the constellation of assigned job components determine the experience of one’s occupation (Hackman & Oldham, 1980), “work design” is ascribed to a more dynamic perspective that includes how employees initiate changes to how they approach and perform their tasks to alter the content and organization of their work activities (Parker, 2014; Parker et al., 2017; Zhang & Parker, 2019). Self-initiated changes to the organization and performance of one’s work activities may have a relatively short-term or long-term focus. Daily PWD represents a proactive strategy with a relatively transient and proximal focus that transforms the organization and experience of task elements during work activities and work episodes, which may especially be important when activities are characterized by daily hindrance job demands.

Designing competition revolves around pleasure derived from stretching one’s skills (e.g., excitement, exhilaration) and comprises strategies such as setting goals and rules to make work activities more competitive and challenging (e.g., scanning articles as fast as possible; framing work as a puzzle that needs to be solved). Designing fun focuses on lighthearted pleasure (e.g., cheerfulness, amusement) and refers to strategies that include the use of fantasy and humor to make activities more entertaining and fun (e.g., exchanging jokes with a customer; imagining the story of a passenger). Finally, designing competition mainly consists of intraindividual behavior such as stretching personal skills and pushing beyond personal records (Howe, 2008), whereas designing fun also comprises interpersonal behaviors such as integrating humor into communication with clients or colleagues. The content of these behaviors can be classified in terms of agency and communion (Abele & Wojciszke, 2014). Namely, while designing competition mainly comprises agency-focused tactics, designing fun includes strategies that are more communion oriented. Several previous findings indicate that the PWD dimensions indeed reflect two different and independent ways to playfully design work. For instance, in a daily diary study, multilevel confirmatory factor analyses showed that daily designing competition can be empirically distinguished from daily designing fun (Scharp et al., 2019). Moreover, the results of that study showed that daily changes in designing competition and designing fun uniquely interacted with trait playfulness and trait openness to predict daily fluctuations in work engagement. Finally, in two cross-sectional studies with a heterogeneous sample, (a) the two-factor structure emerged in exploratory factor analyses and was confirmed in confirmatory factor analyses and (b) designing competition correlated more strongly with a goal-oriented mindset and a desire to outperform others, whereas designing fun was more strongly associated with a sense of humor and tendency to reframe situations in such a way to provide oneself with amusement and entertainment (Scharp et al., 2018). Based on the different agentic and communal qualities of designing competition and designing fun, respectively, we argue that they may ameliorate different adverse situations. That is, while designing competition may especially benefit work with agency hindrance job demands, designing fun may especially help employees deal with communion hindrance job demands.

### **Playfully Redesigning Agency Hindrance Job Demands**

Agency hindrance job demands such as repetitiveness and simplicity may impede work engagement because they limit opportunities to feel efficacious and competent (Fernet et al., 2013). According to Csikszentmihalyi (1975), individuals disengage when tasks lack action opportunities because such activities do not sufficiently stretch skills and do not provide meaning. In turn, attention is diverted to “the passage of time itself” (Eastwood et al., 2012; James, 1913). Complementary to job redesign, individuals may proactively create action opportunities within tasks themselves to enhance engagement (Fisher, 1993; Hamilton et al., 1984). We propose that employees may deal with agency hindrance job demands by restructuring their work with challenges and competition to maintain their work engagement. For instance, experimental studies suggest that setting

specific and difficult goals during simplistic and repetitive tasks promotes engagement (Bryan & Locke, 1967; Mossholder, 1980), because such goals give a sense of achievement and competence (Locke & Latham, 2002). Other experimental evidence indicates that individuals may spontaneously introduce variation into their tasks to maintain an optimal level of activation (Hill, 1975). Building on these theoretical insights and findings, we argue that on days when employees encounter agency hindrance job demands, they may maintain their engagement, and therefore their performance, by designing competition in their tasks.

*Hypothesis 3.* Designing competition moderates the negative indirect association between agency hindrance job demands and job performance through work engagement (all on the day level). This indirect association is less strong on the days when designing competition is high (vs. low)

### ***Playfully Redesigning Communion Hindrance Job Demands***

Communion hindrance job demands such as interpersonal conflict and isolation are detrimental to work engagement since such situations potentially undermine warmth, harmony, and trust (Bogaerts et al., 2006; Peterson & Behfar, 2003). Engagement levels drop when individuals are confronted with conflict and isolation because of a perceived lack of support and connection (Deci & Ryan, 2000; Sulea et al., 2012). On days when work activities impede employees' sense of communion, employees may manage their emotional response to accommodate to the thwarting experience without feeling overwhelmed and/or change their interpersonal style to promote close relationships (Revenson, 1981). Hence, we propose that employees may deal with such hindrance job demands by designing fun through fantasy and humor. Research suggests that individuals use fantasy to deal with loneliness and aversive situations because it provides them with companionship and entertainment (Logan, 1985; Lynn & Rhue, 1988; Rhue & Lynn, 1987; Wilson & Barber, 1982). Indeed, findings indicate that individuals may use imagination to produce interpersonal and entertaining scenarios to increase feelings of connection and shift attention away from aversive conditions such as isolation and conflict (Honeycutt & Keaton, 2012; Lang, 1995; Poerio et al., 2016; Worthen & Deschamps, 2008). Similarly, the active use of humor helps individuals alleviate tension when their sense of connection is undermined (Robert, 2017; Tucker et al., 2013). Indeed, meta-analytic evidence suggests humor can mitigate the negative impact of stressful situations by promoting relaxation, reducing tension, stimulating positive reinterpretations, and lubricating social interactions (Mesmer-Magnus et al., 2012). Taken together, this suggests that employees may reduce the negative association between communion hindrance job demands and work engagement and consequently sustain their performance, by playfully designing their work to be more fun.

*Hypothesis 4.* Designing fun moderates the negative indirect association between communion hindrance job demands and job performance through work engagement (all on the day

level). This indirect association is less strong on the days when designing fun is high (vs. low)

## **Method**

### **Procedure and Participants**

Participants were recruited by bachelor and master students as part of their theses, which increased the heterogeneity of our sample and as such, the generalizability of our findings (Demerouti & Rispens, 2014). Participants first received information regarding informed consent, the study's general purpose, and the research design. Employees who agreed to participate received an email with a link to the general survey which contained demographic questions (e.g., gender, age). The participants who filled out the general survey received an email at the end of each working day at 4 p.m. in the subsequent two weeks with a link to the daily survey. In line with other research that used a within-person differences design, we only included the data of participants who filled out more than two daily diary surveys (e.g., Breevaart & Bakker, 2018). As an incentive to participate, one of the respondents could win a €50 gift voucher in a raffle if they filled out five daily diary questionnaires.

Two hundred and two out of the 281 employees who agreed to participate filled out the general questionnaire and at least three diary surveys (response rate = 68.8%). These 202 respondents returned 5.61 diary surveys on average (Total  $N = 202 \times 5.61 = 1,133$  data points). The sample consisted of 110 men (54.5%) and 92 women (45.5%). Most participants were either cohabiting or married (61.4%), and 43.6% lived with children at home. On average, participants were 40.01 years old ( $SD = 14.04$ ), had 18.31 years of work experience ( $SD = 14.30$ ), and 9.55 years of organizational tenure ( $SD = 10.53$ ). Participants held a degree from a university (39.6%), completed professional education (29.2%), or finished high school (31.2%). Most participants were employed full time (62.9%). Participants worked in a wide variety of settings such as health and welfare (18.8%), business and finance (18.3%), government (17.3%), education (6.9%), trade (6.9%), and industry (6.9%).

### **Drop-out Analysis**

To examine the potential presence of selection bias, we conducted a drop-out analysis. Specifically, we compared the group selected for analysis ( $N = 202$ ) with the excluded participants ( $N = 79$ ). The groups did not differ in terms of gender ( $\chi^2 = .15, p = .699$ ), education level ( $U = 7570.0, p = .485$ ), relationship status ( $\chi^2 = 5.52, p = .238$ ), or occupational background ( $\chi^2 = 5.36, p = .912$ ). Furthermore, the two groups also did not differ in terms of age, work experience, and tenure, nor in overall work underload, work monotony, task simplicity, interpersonal conflict, social isolation, emotional demands, work engagement, in-role performance, extra-role performance, designing competition, and designing fun ( $F(14,231) = .89, p = .572$ ).

### **Measures**

Following recommendations for daily diary research to enhance validity and minimize participant burden (Beal, 2015; Ohly et al., 2010), the length of existing scales was reduced and responses for all constructs were given on a 7-point scale (1 = *not true at all* to 7 = *totally true*). We used validated short versions of the original scales. If

**Table 1**  
*Means, Standard Deviations, Intercorrelations, ICC, and Reliabilities (on the Diagonal Between Brackets) of the Study Variables*

	<i>M</i>	<i>SD</i>	1-ICC	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Daily work underload	3.65	1.43	64.5%	(.77)	.41***	.62***	-.13	-.01	-.23**	-.19**	-.34***	-.10	.03	.09
2. Daily work monotony	2.89	1.17	42.9%	.34***	(.75)	.64***	.00	.13	-.15*	-.28***	-.18**	-.09	.02	-.04
3. Daily task simplicity	3.35	1.40	51.0%	.49***	.49***	(.84)	-.01	.12	-.18*	-.28***	-.26***	-.11	-.17*	-.17*
4. Daily interpersonal conflict	1.64	.98	67.1%	-.14***	-.03	-.05	(.87)	.59***	.50***	-.20**	-.02	.10	.20**	.14
5. Daily social isolation	1.87	1.06	54.9%	-.02	.09**	.08**	.46***	(.83)	.43***	-.38***	-.21**	-.05	-.02	-.03
6. Daily emotional demands	2.22	1.39	47.4%	-.19***	-.11***	-.15***	.43***	.36***	(.86)	-.08	.02	.14	.11	.18*
7. Daily work engagement	4.81	1.18	57.8%	-.08**	-.16***	-.17***	-.11***	-.28***	-.05	(.80)	.61***	.20**	.36***	.29***
8. Daily in-role performance	5.11	1.05	62.8%	-.24***	-.11***	-.23***	.00	-.14***	.02	.58**	(.78)	.27***	.23***	.16*
9. Daily extra-role performance	5.05	1.24	43.7%	-.06	-.07*	-.10**	.07*	-.05	.12***	.21***	.23***	(.81)	.28***	.36***
10. Daily designing competition	3.42	1.06	32.3%	-.02	-.01	-.18***	.14***	-.03	.11***	.36***	.27***	.25***	(.82)	.74***
11. Daily designing fun	3.75	1.15	37.4%	.05	-.04	-.17***	.09**	-.05	.15	.34***	.21***	.32	.72***	(.91)

*Note.* ICC = intraclass coefficient. Correlations above the diagonal are based on between-person averages ( $N = 202$ ), whereas correlations below the diagonal are based on within-person data ( $N = 1,133$ ).

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

validated short versions of the scales were unavailable, we used the original scale but deleted items that referred to behaviors that were unlikely to occur on a daily basis. We reformulated items such that they referred to the workday. To accurately capture the daily experience of agency hindrance job demands and communion hindrance job demands, potential measures were evaluated in terms of validity, distinctiveness, and sensitivity. First, we screened the literature and collected a sample of potential measures that pertained to (a) the sense of efficacy and competence or (b) the experience of communion and belongingness (Morgeson & Humphrey, 2006; Ohly & Schmitt, 2015; Van den Broeck et al., 2016). Second, we evaluated potential measures regarding their agency–communion distinctiveness. We removed measures that conflated agency with communion to enhance conceptual clarity (e.g., task conflict). Third, we evaluated the sensitivity of the measure to daily fluctuations. That is, we removed items and instruments that are relatively stable and show little daily variation (Ohly et al., 2010). Three measures were selected for agency hindrance job demands and three other measures were selected for communion hindrance job demands. All scales were sufficiently reliable (Table 1).

### Daily Agency Hindrance Job Demands

We measured three daily agency hindrance job demands. First, the daily work underload scale was based on the three-item workload scale developed by Bakker et al. (2003). An example statement is “Today, I had little work to do.” The average Cronbach’s alpha was acceptable (.77). Daily work monotony was assessed with the four-item routine job conditions monotony scale (Lennon, 1994). A sample item is “Today, my work was repetitive.” The average Cronbach’s alpha was good ( $\alpha = .84$ ). Finally, daily task simplicity was measured with the four-item job complexity subscale from the Work Design Questionnaire (Morgeson & Humphrey, 2006). The scale includes the following item: “Today, the tasks on the job were simple and uncomplicated” (mean  $\alpha = .75$ ).

### Daily Communion Hindrance Job Demands

We measured three daily communion hindrance job demands. First, interpersonal conflict was measured with the daily version (Sanz-Vergel et al., 2015) of the four-item Interpersonal Conflict at Work Scale (Spector & Jex, 1998). An example item is “Today, I got into arguments with someone at work” (mean  $\alpha = .87$ ). Social isolation at work was assessed by contextualizing the daily version (Arpin & Mohr, 2019) of the three-item revised-UCLA loneliness scale to work (Hughes et al., 2004), including “Today, I felt isolated from others at work” (mean  $\alpha = .83$ ). Daily emotional demands were measured with three items from the Emotional Demands Scale (Xanthopoulou et al., 2013), including “Today, my work was emotionally demanding” (mean  $\alpha = .86$ ).

### Daily Work Engagement

We assessed daily work engagement with the daily version (Breevaart et al., 2012) of the three-item Utrecht Work Engagement Scale (Schaufeli et al., 2019). The scale includes items for the assessment of vigor, dedication, and absorption. The items are “Today, I felt bursting with energy” (i.e., vigor), “Today, I was inspired by my job (i.e., dedication), and “Today, I was immersed in my work (i.e., absorption). The mean Cronbach’s  $\alpha$  was .80.

### Daily In-Role Performance

We measured daily in-role performance with the daily, three-item version (Reina-Tamayo et al., 2018) of the in-role performance scale developed by Casimir et al. (2006) including the following item: "Today, I produced work of a high standard" (mean  $\alpha = .78$ ).

### Daily Extra-Role Performance

Daily extra-role performance was measured with four items from the daily OCB toward the coworker scale developed by Dalal et al. (2009). An example item is "Today, I tried to help a coworker." The average Cronbach's alpha was .81.

### Daily PWD

We used the 2D, daily PWD instrument to measure daily PWD behaviors (Scharp et al., 2018, 2019). The scale measures each dimension with six items. An example item of the daily designing competition subscale is "Today, I tried to make my job a series of exciting challenges" (mean  $\alpha = .82$ ). The daily designing fun subscale includes the item "Today, I used my imagination to make my job more interesting." The average internal consistency of the scale was excellent ( $\alpha = .91$ ).

### Strategy of Analysis

The data consists of two levels where daily observations ( $N = 1,133$ ) are nested in individuals ( $N = 202$ ), which implies we have sufficient power to detect the hypothesized associations (Maas & Hox, 2004; Scherbaum & Ferreter, 2009). The intraclass coefficients (ICC) indicate that 32.3%–67.1% of the variance is explained by differences within individuals (i.e., the day level; Table 1). Hence, to appropriately model the multilevel structure of the data, we tested our hypotheses by conducting structural equation modeling using Mplus (Muthén & Muthén, 1998-2017). Given that all hypotheses specify level-1 associations, we conducted our analyses using the Mplus "TYPE = COMPLEX" option to account for the nested structure of the data.

To test our hypotheses, we created two latent variables with the hindrance job demands with content related to agency (i.e., work underload, monotony, simplicity) and communion (i.e., interpersonal conflict, social isolation, emotional demands). Similar to previous studies on hindrance job demands, this approach allows us to model the associations and interactions between PWD and the hindrance job demands in a parsimonious way (e.g., LePine et al., 2004). We used the latent moderated structural equations approach to test our moderated-mediation hypotheses. This approach accounts for the nonnormality of interaction effects, which provides an unbiased and more efficient estimation of parameters and standard errors than alternative approaches (Klein & Moosbrugger, 2000). This analysis implies we only provide regular fit statistics for our first hypothesis since Mplus does not compute these indices for moderated latent structural equation models. Instead, we provide the log-likelihood and Bayesian Criterion Index for our moderation-mediation model. Finally, we control for the autoregressive effects of employees' engagement and performance levels. As a result, the path coefficients represent the unique "changes" in daily work engagement, daily in-role performance, and daily extra-role

performance. This procedure provides a less-biased estimate of the path coefficients (Wilkins, 2018).

## Results

### Descriptive Statistics

Table 1 presents the means, standard deviations, ICCs, and correlations of the study variables.

### Measurement Models

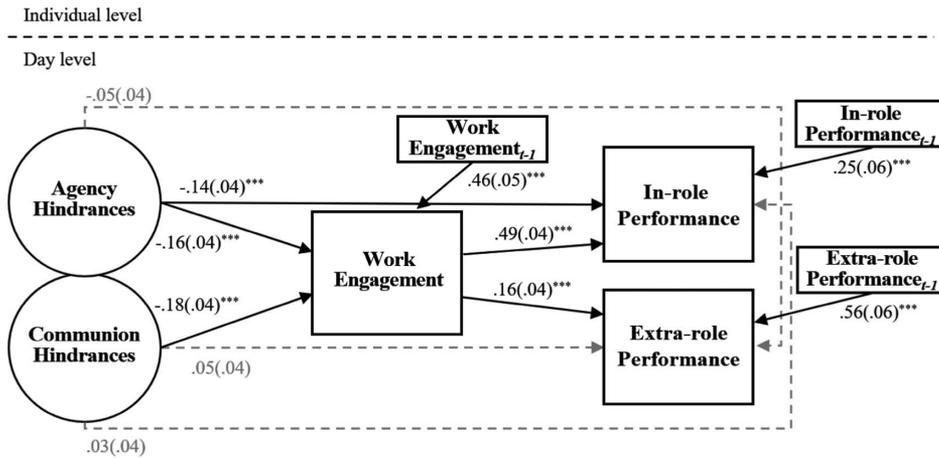
We first specified a measurement model to assess the construct validity of our measures. The measurement model consisted of 11 latent factors: daily work underload (three items), daily work monotony (four items), daily task simplicity (four items), daily interpersonal conflict (four items), daily social isolation (three items), daily emotional demands (three items), daily work engagement (three items), daily in-role performance (three items), daily extra-role performance (four items), daily designing fun (six items), and daily designing competition (six items). The model fit of the model was good ( $\chi^2(805) = 2,495.73$ , RMSEA = .04, CFI = .90, and SRMR = .04). The standardized factor loadings ranged from .39 to .96 and were all significant ( $p < .001$ ).

We further conducted a confirmatory factor analysis to verify that we can accurately distinguish between agency and communion hindrance job demands. Hence, we compared a one-factor model in which all job demands loaded on a single factor with a two-factor model in which work underload, work monotony, and task simplicity loaded on one latent factor (i.e., agency hindrance job demands) and in which interpersonal conflict, social isolation, and emotional demands loaded on a second latent factor (i.e., communion hindrance job demands). The results showed that the one-factor structure fit rather poorly to the data (RMSEA = .53, CFI = .00, SRMR = .15), whereas the two-factor structure fitted the data well (RMSEA = .07, CFI = .92, and SRMR = .06). The difference in model fit was indeed substantial,  $\Delta\chi^2(1) = 53.10$ ,  $p < .001$ ;  $\Delta\text{BIC} = 600.71$ . All standardized factor loadings of the two-factor model were significant and ranged from .58 to .75 ( $p < .001$ ). In support of their divergent validity, the two latent variables were only weakly and nonsignificantly correlated ( $r = -.11$ ,  $p = .221$ ). Hence, we proceed to test our hypotheses.

### Mediation Hypotheses

We tested Hypotheses 1 and 2 simultaneously in a single structural model. Hypothesis 1 states that the association of daily agency hindrance job demands with daily in-role performance (H1a) and daily extra-role performance (H1b) is explained by daily work engagement. Figure 1 displays the estimated standardized path coefficients for the hypothesized mediation model. In support of the indirect associations, the mediation model was a better fit to the data than the direct associations model ( $\Delta\chi^2(2) = 31.85$ ,  $p < .001$ ;  $\Delta\text{BIC} = 26.51$ ). Specifically, the mediation model showed a more acceptable fit to the data (RMSEA = .05, CFI = .89, SRMR = .05) than the direct effects model (RMSEA = .05, CFI = .87, SRMR = .06). In line with Hypothesis 1a and Hypothesis 1b, daily agency hindrance job demands were indirectly related to daily in-role performance ( $ab = -.10$ ,  $SE = .03$ ,  $z = 3.62$ ,  $p < .001$ , 95% CI  $[-.15, -.04]$ ) and daily extra-role performance ( $ab = -.04$ ,

**Figure 1**  
Standardized Estimated Effects for the Hypothesized Mediation Model



Note. Fit indices are:  $\chi^2(38) = 177.30$ ,  $-2\text{Log-Likelihood} = 20,133.73$ , Bayesian Information Criterion = 40,654.71, Root Mean Square Error of Approximation = .05, Comparative Fit Index = .89, Standardized Root Mean Square Residual = .05.

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

$SE = .01$ ,  $z = 3.03$ ,  $p < .01$ , 95% CI $[-.06, -.01]$ ). Supporting Hypothesis 2a and Hypothesis 2b, daily communion hindrance job demands were indirectly associated with daily in-role performance ( $ab = -.13$ ,  $SE = .04$ ,  $z = 3.13$ ,  $p < .01$ , 95% CI $[-.21, -.05]$ ) and daily extra-role performance ( $ab = -.05$ ,  $SE = .02$ ,  $z = 2.70$ ,  $p < .01$ , 95% CI $[-.08, -.01]$ ). Unexpectedly, daily agency hindrance job demands were directly, negatively associated with daily in-role performance ( $b^* = -.14$ ,  $SE = .04$ ,  $z = 3.39$ ,  $p < .01$ , 95% CI $[-.21, -.06]$ ). However, agency hindrance job demands were not associated with daily extra-role performance ( $b^* = -.05$ ,  $SE = .04$ ,  $z = 1.26$ ,  $ns$ , 95% CI $[-.12, .03]$ ), and daily communion hindrance job demands were neither associated with daily in-role performance ( $b^* = .03$ ,  $SE = .04$ ,  $z = .81$ ,  $ns$ , 95% CI $[-.05, .12]$ ), nor with daily extra-role performance ( $b^* = .05$ ,  $SE = .04$ ,  $z = 1.23$ ,  $ns$ , 95% CI $[-.03, .12]$ ). The mediation model explained 30.2% of the within-person variance in daily work engagement, 42.5% of the within-person variance in daily in-role performance, and 36.8% of the within-person variance in daily extra-role performance. These results suggest that on days when employees encounter communion hindrance job demands and agency hindrance job demands, they are less able to help colleagues and work proficiently because they are less engaged with work.

### Moderated-Mediation Hypotheses

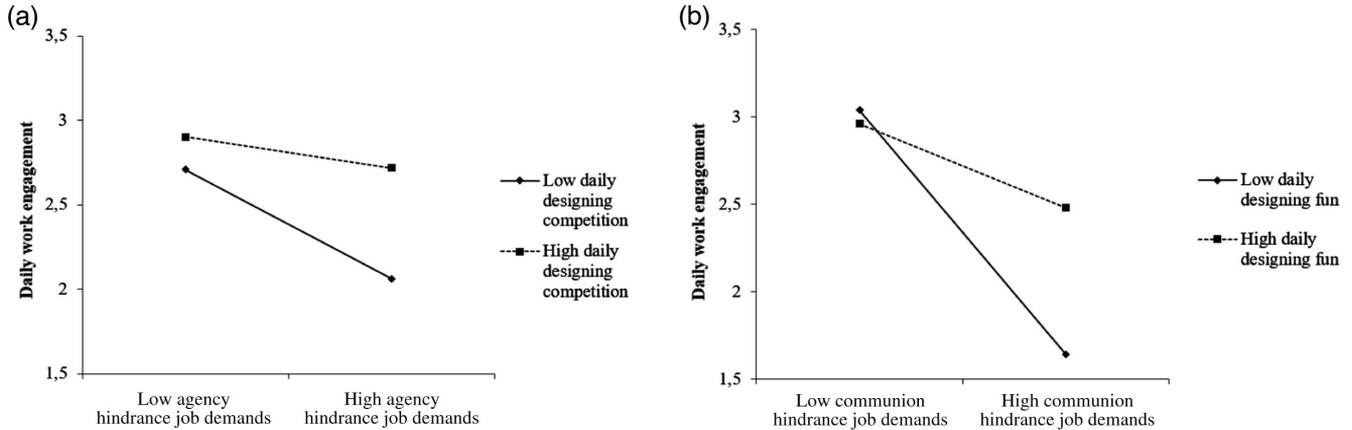
Hypotheses 3 and 4 suggest that designing competition and designing fun buffer the negative, indirect associations of agency hindrance job demands and communion hindrance job demands, respectively, with daily in-role performance and daily extra-role performance. Prior to testing the moderated-mediated associations, we assessed the hypothesized interactions. The results of latent moderated structural equations analyses showed that daily designing competition moderated the negative association between daily agency hindrance job demands and daily work engagement ( $b = .11$ ,  $SE = .04$ ,  $z = 2.59$ ,  $p < .01$ , 95% CI $[.03, .19]$ ). That

is, as illustrated in Figure 2a, the association between daily agency hindrance job demands and daily work engagement was weaker on days when daily designing competition was high (+1SD;  $b = -.47$ ,  $SE = .14$ ,  $z = 3.41$ ,  $p < .01$ , 95% CI $[-.74, -.20]$ ) in comparison with days when daily designing competition was low (-1SD;  $b = -.70$ ,  $SE = .22$ ,  $z = 3.16$ ,  $p < .01$ , 95% CI $[-1.13, -.27]$ ). Similarly, the interaction between daily designing fun and daily communion hindrance job demands was positively associated with daily work engagement ( $b = .20$ ,  $SE = .06$ ,  $z = 3.70$ ,  $p < .001$ , 95% CI $[.10, .31]$ ). Specifically, as depicted in Figure 2b, the strength of the relation between daily communion hindrance job demands and daily work engagement was weaker on days when daily designing fun was high (+1SD;  $b = -1.00$ ,  $SE = .22$ ,  $z = 4.64$ ,  $p < .001$ , 95% CI $[-1.42, -.58]$ ) than on days when daily designing fun was low (-1SD;  $B = -1.47$ ,  $SE = .34$ ,  $z = 4.33$ ,  $p < .001$ , 95% CI $[-2.13, -.80]$ ).

Finally, structural equation analyses support the hypothesized moderated-mediation model. Figure 3 shows the estimated unstandardized path coefficients for the hypothesized moderated-mediation model. In support of the moderated-mediation model, the model showed a better fit to the data than the model that excluded the hypothesized interaction effects ( $\Delta\chi^2(2) = 20.01$ ,  $p < .001$ ;  $\Delta\text{BIC} = 21.81$ ). Table 2 summarizes the hypothesized moderated-mediated associations. The indirect associations of daily agency hindrance job demands with daily in-role performance and daily extra-role performance were buffered on days when employees showed high (vs. low) daily designing competition (see Table 2). For instance, the indirect association between daily agency hindrance job demands and in-role performance was weaker on days when daily designing competition was high (+1SD;  $b = -.21$ ,  $SE = .06$ ,  $z = 3.27$ ,  $p < .01$ , 95% CI $[-.34, -.08]$ ) than on days when daily designing competition was low (+1SD;  $b = -.32$ ,  $SE = .10$ ,  $z = 3.03$ ,  $p < .01$ , 95% CI $[-.52, -.11]$ ). Likewise, the indirect associations of daily communion hindrance job demands with daily in-role performance and daily extra-role performance were attenuated on days when employees

**Figure 2**

Figures Depicting the Interaction (a) Between Daily Designing Competition and Daily Agency Hindrances Influencing Daily Work Engagement and (b) Between Daily Designing Fun and Daily Communion Hindrances Influencing Daily Work Engagement



showed high (vs. low) daily designing fun (see Table 2). For example, the indirect association between daily communion hindrance job demands and extra-role performance was lower on days when daily designing fun was high (+1SD;  $b = -.18$ ,  $SE = .06$ ,  $z = 2.94$ ,  $p < .01$ , 95% CI  $[-.30, -.06]$ ) than on days when daily designing fun was low (-1SD;  $b = -.26$ ,  $SE = .09$ ,  $z = 2.86$ ,  $p < .01$ , 95% CI  $[-.44, -.08]$ ). The moderated-mediation model was able to explain 40.1% of the variance in daily work engagement, 42.5% of the variance in daily in-role performance, and 36.5% of the variance in daily extra-role performance. Taken together, these results suggest that the negative association of agency hindrance job demands and communion hindrance job demands with employees' work engagement and performance outcomes is less unfavorable on days when employees playfully design their work activities.

### Additional Analysis: Matching Assumption

The matching principle suggests that matching interactions (i.e., agency hindrance job demands  $\times$  designing competition, communion hindrance job demands  $\times$  designing fun) best capture fluctuations in daily work engagement. To further test the validity of the matching principle, we regressed daily work engagement on the "nonmatching" interaction terms (i.e., agency

hindrance job demands  $\times$  designing fun, communion hindrance job demands  $\times$  designing competition) and compared model fit. The nonmatching interaction terms of daily agency hindrance job demands  $\times$  daily designing fun ( $b = .06$ ,  $SE = .07$ ,  $z = .82$ ,  $ns$ , 95% CI  $[-.08, .19]$ ) and of daily communion hindrance job demands  $\times$  daily designing competition ( $b = .02$ ,  $SE = .08$ ,  $z = .23$ ,  $ns$ , 95% CI  $[-.14, .18]$ ) did not predict daily work engagement. In support of the matching principle, the results indicate that the addition of these nonsignificant interaction terms did not improve model fit ( $\Delta\chi^2 = 1.789$ ,  $\Delta df = 2$ ;  $p > .05$ ;  $\Delta BIC = 12.52$ ).

## Discussion

Advances in the job demands literature revealed it is imperative to distinguish different types of job demands if we want to understand their mechanisms and consequences (Breevaart & Bakker, 2018; Cavanaugh et al., 2000; Mazzola & Disselhorst, 2019). The present study aimed to extend the seminal work on job stressors by Cavanaugh et al. (2000). We built on the dual perspective model of social cognition (Abele & Wojciszke, 2014; Ohly & Schmitt, 2015) to advance our knowledge regarding hindrance job demands, their possible impact, and how to deal with them. Utilizing daily diary methodology, we found support for the 2D structure that

**Table 2**

Moderated Indirect Effects of Communion and Agency Hindrances on Extra-Role and In-Role Performance Through Daily Work Engagement

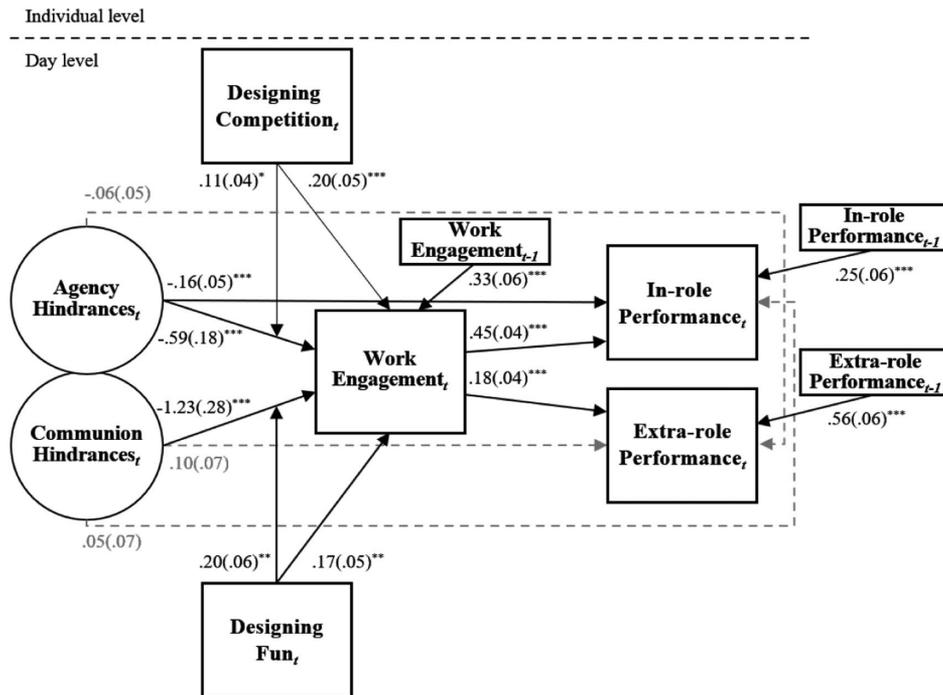
Predictors	Indirect effect					
	Daily in-role performance			Daily extra-role performance		
	<i>ab</i>	<i>SE</i>	95% CI	<i>ab</i>	<i>SE</i>	95% CI
Daily agency hindrances $\times$ low (-1SD) daily designing competition	-.32**	.10	-.52, -.11	-.13**	.05	-.22, -.03
Daily agency hindrances $\times$ high (+1SD) daily designing competition	-.21**	.06	-.34, -.08	-.08**	.03	-.14, -.02
Daily communion hindrances $\times$ low (-1SD) daily designing fun	-.66***	.17	-.99, -.32	-.26**	.09	-.44, -.08
Daily communion hindrances $\times$ high (+1SD) daily designing fun	-.45***	.11	-.66, -.23	-.18**	.06	-.31, -.06

Note. *ab* = unstandardized coefficient of the indirect effect.

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

**Figure 3**

Unstandardized Estimated Effects for the Hypothesized Moderated-Mediation Model



Note. Fit indices are  $-2\text{Log-Likelihood} = 17,460.75$ , Bayesian Information Criterion = 35,315.32.

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

captures agency as well as communion in daily hindrance job demands. Moreover, our findings indicate that on days when employees encounter agency hindrance job demands and communion hindrance job demands during work, they may partially negate their negative associations by designing their tasks to be more competitive and more fun, respectively. Taken together, our findings answer calls for further research on the dimensionality of stressors (Cavanaugh et al., 2000) and play during work (Mainemelis & Ronson, 2006; Petelczyc et al., 2018).

### Theoretical Implications

The findings of the present study advance the literatures on job demands and PWD in several ways. First, we built on previous research that defined hindrance job demands as work situations that limit psychological growth and goal attainment (Cavanaugh et al., 2000) and the dual perspective model of social cognition (Abele & Wojciszke, 2014; Bakan, 1966) to further distinguish two types of hindrance job demands. Our findings advance the literature on hindrance job demands by demonstrating that the dual perspective model improves our understanding of the dimensionality of daily hindrance job demands. We found empirical support for two distinct clusters of daily hindrance job demands: (a) agency hindrance job demands such as underload and monotony that are task-oriented and limit the opportunities for the experience of goal-achievement and competence (De Charms, 1968; White, 1959) and (b) communion hindrance job demands such as conflict and isolation with content that is interpersonal and limit the probability of experiencing affiliation (Baumeister & Leary, 1995). In support of the utility

of the agency–communion hindrance job demands distinction, we found unique correlational and interaction patterns between the two types of hindrance job demands, PWD behaviors, and performance outcomes. On days with more agency and communion hindrance job demands, employees showed lower in-role and extra-role performance, because they experienced lower levels of work engagement (mediation effects). In addition, (unexpectedly) daily agency hindrance job demands were *directly* negatively related to daily in-role performance but did not relate directly to daily extra-role performance. The direct, negative association between daily agency hindrance job demands and in-role performance indicates that when work lacks complexity or goals are absent, it is hard to perform proficiently (Locke & Latham, 2002). Finally, daily designing competition and daily designing fun uniquely attenuated the indirect association of daily agency hindrance job demands and daily communion hindrance job demands with job performance. These findings provide evidence for the importance of distinguishing between agency hindrance job demands and communion hindrance job demands. Taken together, these distinct associations support the assertion by Cavanaugh et al. (2000) that there is “a need for further consideration of the categorizations of self-reported work stress” (p. 70) and may explain inconsistent findings between work stressors and other variables (Mazzola & Disselhorst, 2019). That is, when affect and motivation are considered, agency and communion stressors may particularly correlate with outcome variables that match their content in terms of agency and communion.

The second contribution of the current study lies in demonstrating how PWD interacts with job conditions. While scholars frequently speculated about play as a way to cope with adversities (e.g.,

Petelczyc et al., 2018), little is known about the role of play during work (Mainemelis & Ronson, 2006). The present study utilized daily diary methodology to investigate how and when employees playfully design daily work activities to deal with daily agency hindrance job demands and daily communion hindrance job demands. Therefore, this study answers calls for more research on the role of play in organizations (Bakker & Van Woerkom, 2017; Mainemelis & Ronson, 2006; Petelczyc et al., 2018) and intraindividual research that evaluates the efficacy of dealing with stressors (Lazarus, 2000). That is, the study indicates how daily PWD attenuates the extent to which daily hindrance job demands undermine employees' daily enthusiasm and vigor during work. These within-person interactions offer unique insight into the effectiveness of proactive coping efforts (Lazarus, 2000), since many studies on coping utilize between-subjects designs that focus on the main effects of coping strategies (e.g., Kaiseler et al., 2014). When studies utilize between-subjects design and focus on main effects, they do not reveal whether a certain strategy actually minimizes the costs associated with the stressor.

In support of the matching principle (de Jonge & Dormann, 2006), we showed that on days when employees were confronted with agency hindrance job demands and communion hindrance job demands, they were able to maintain their work engagement by designing competition and designing fun, respectively. Moreover, additional analyses revealed that the "nonmatching" interactions (i.e., daily agency hindrance job demands  $\times$  daily designing fun, daily communion hindrance job demands  $\times$  daily designing competition) failed to predict daily work engagement. When employees design competition during work activities that lack opportunities to stretch skills in a meaningful way, they proactively create opportunities for agency that the activity lacked. These action opportunities are what fuel work engagement and sustain performance outcomes (Csikszentmihalyi, 1975). Our findings also provide evidence for the importance of humor and imagination when activities lack communion (Mesmer-Magnus et al., 2012; Rhue & Lynn, 1987; Wilson & Barber, 1982). When employees design fun while confronted with work that limits interpersonal support and connection, they proactively use imagination and humor to provide themselves with the companionship that the activity lacked, which maintains their performance levels. Our findings expand the literature on the matching principle by showing the relevance of matching proactive behaviors with stressors. Although previous research has shown that resourceful aspects of work may buffer demanding aspects of work when their content is similar (i.e., both cognitive, both emotional, or both physical; de Jonge & Dormann, 2006), we show that—additionally—employees may take initiative to mobilize the necessary, appropriate resources to deal with stressors. These findings support the proposition that PWD represents an effective proactive strategy to foster optimal experiences and performance (Bakker & Van Woerkom, 2017), which is especially important when activities lack stimulation and companionship.

Two important considerations should be noted regarding the moderation of the association between daily hindrance job demands and daily work engagement by PWD. First, further inspection of the interaction figures also indicates that on days when agency and communion hindrance job demands were low (vs. high), the contribution of PWD to work engagement was significantly lower than on days when hindrance job demands were high (vs. low). This observation further underscores the importance of the context in

which employees take initiative (Lazarus, 2000). Since PWD is a proactive strategy aimed at making work activities more intrinsically rewarding (Bakker, Scharp, et al., 2020; Scharp et al., 2018), PWD might have diminished complementary value on days when work is already highly intrinsically rewarding. For instance, during highly complex and difficult activities such as firefighting rescue operations, creating additional action opportunities might have little additional value for work engagement. Furthermore, it should be noted that PWD reflects a short-term strategy enacted during an activity to foster work engagement. Thus, while the results indicate that employees may stay engaged despite daily hindrance job demands due to PWD, these findings may not apply to contexts in which employees are exposed to hindrance job demands during the longer term (and at the between-level of analysis). That is, the use of PWD to mitigate the effects of chronic exposure to unstimulating and emotionally demanding work is likely less effective and might even be harmful since stressors are not removed (Tuckey et al., 2015). Hence, PWD should always be complemented by structural human resource practices to ensure employee well-being (Bakker & Van Woerkom, 2017).

### Practical Implications

Our findings also have practical implications for organizations and employees that aim to foster employee well-being and performance. While contemporary work design perspectives shifted toward, and emphasize, the optimization of job resources and job demands (e.g., Bakker & Demerouti, 2017), Tayloristic work design approaches remain pervasive in practice due to factors such as a lack of knowledge regarding work design (for extensive reviews, see Parker, 2014; Parker et al., 2017). The results suggest organizations may utilize the agency–communion hindrance job demands distinction to design interventions to help employees deal with daily hindrance job demands. Specifically, organizations may strive to design more structural opportunities to experience agency and communion when work is characterized by simplicity, monotony, conflict, or isolation to protect employees' work engagement and performance behaviors. When hindrance job demands are present (e.g., monotonous tasks that have to be done; conflicts between colleagues), individuals may use daily PWD to complement top-down job design initiatives and deal directly with daily hindrance job demands. Specifically, to maintain employees' well-being and performance levels, on days when agency hindrance job demands are prevalent, organizations should especially foster designing competition, whereas when communion hindrance job demands are high the focus should shift to encouraging designing fun (Ohly & Schmitt, 2015). Organizations may stimulate PWD by (a) providing autonomy and support for play (Scharp et al., 2018) and (b) offering training to employees (Proyer et al., 2020).

PWD training may particularly be important before agency hindrance job demands, and communion hindrance job demands are high since it is difficult for employees to initiate changes while enduring adverse circumstances without outside help (Bakker & Costa, 2014; Bakker & de Vries, 2020). Organizations that wish to cultivate PWD effectively through training can build on play theory and the current findings. First, since intrinsic motivation is a key aspect of play (Mainemelis & Ronson, 2006; Petelczyc et al., 2018), participation in PWD interventions should be voluntary. Additionally, intrinsic motivation should be stimulated throughout the

intervention by designing challenging and fun training activities. Second, since play can be considered a skill (Csikszentmihalyi, 1975), interventions should increase trainees' (a) knowledge regarding the principles of PWD and (b) skills through interactive lectures and exercises. Moreover, to enhance retention of the newly learned knowledge and skills, trainees should set specific goals regarding when and where they will playfully design work activities. Finally, while both daily designing competition and daily designing fun promote daily work engagement (Scharp et al., 2019), the present findings suggest that PWD interventions should teach trainees about which PWD behaviors fit which context. For instance, interventions may teach employees that when they encounter communion hindrance job demands, the best way to employ PWD is to design these activities to be more fun.

### Strengths, Limitations, and Future Research

Certain limitations should be kept in mind while interpreting the findings. The present study relied on self-report measures, which may increase common method variance (Podsakoff et al., 2003). However, the presence of common method variance does not necessarily undermine the validity of our findings for several reasons. First, we rule out substantial method effects using validated measures and demonstrating construct validity in terms of appropriate reliability coefficients and factor structure (Conway & Lance, 2010). Second, Conway and Lance argue that the use of self-report measures is appropriate and sometimes even superior to other types of measures when constructs concern private experiences such as work engagement. This reasoning also applies to the experience of daily agency hindrance job demands and daily communion hindrance job demands, because it is a difficult and cumbersome task for others to judge whether someone's day contained activities that were unstimulating or lacked companionship. Similarly, the validity of other ratings of in-role and extra-role performance is undermined when others lack knowledge regarding respondents' behaviors (Vazire & Mehl, 2008). For instance, while a supervisor may accurately rate employees' weekly performance levels based on weekly observations (e.g., weekly deadlines, help offered to colleagues during meetings), an employee may more accurately rate their daily performance behaviors since they might be relatively covert for supervisors (e.g., calls with clients, emails). Third, interaction effects cannot be artifacts of common method variance and the presence of common method variance makes real interactions harder to detect (Siemsen et al., 2010). Hence, the presence of interaction effects and additional analysis suggests that common method variance was not a major concern in our study. Fourth, since we analyze within-person deviations from respondents' baseline scores, our centering procedure partially negates self-report bias. Namely, person-mean centering implies that between-person differences such as social desirability or response tendencies cannot explain our findings (Gabriel et al., 2019). Finally, we controlled for the autoregressive effects of our outcome variables, which provide more accurate path coefficients (Wilkins, 2018). Future research may investigate the association between PWD and daily other ratings of performance within an occupational setting where performance behaviors are (a) objectively recorded or (b) overt to colleagues or supervisors (e.g., Bakker, Hetland, et al., 2020).

While the quantitative daily diary design is a strength of the present study, this design also implies that we cannot make causal inferences. Following our theoretical arguments, we modeled work engagement as an outcome of the interaction between hindrance job demands and

PWD. However, activated positive affect is considered to be an important consequence and antecedent of both play and proactivity (e.g., Bakker & Demerouti, 2017; Bakker & Van Woerkom, 2017; Mainemelis & Ronson, 2006; Parker et al., 2006). Hence, PWD and work engagement are likely reciprocally related. To further study the causal relations between PWD and work engagement, future research should utilize a research design that does justice to the transient nature of daily PWD. That is, play is a phenomenon that concludes "within certain limits of time and place" (Huizinga, 1949, p. 9). One way to study PWD within the temporal context it takes place and at the same time increase the confidence of causal inferences is to utilize an episodic diary design. Specifically, future research may investigate the reciprocal associations between these variables by assessing PWD and work engagement multiple times a day during different work episodes of 1 or 2 hr.

The present study focused on the agency–communion distinction in daily hindrance job demands. Future research could further explore these findings in two ways. First, while the findings suggest that PWD is an effective way to deal with daily occurrences of agency hindrance job demands and communion hindrance job demands, these results may not apply when individuals are chronically exposed to these hindrance job demands. Future research may therefore explore whether the effectiveness of PWD diminishes over time when employees are continuously exposed to (chronic) hindrance job demands. Second, future research may investigate whether the agency–communion distinction also applies to challenge job demands such as job complexity and work pressure (i.e., agency challenge job demands) and networking and building trust with a client (i.e., communion challenge job demands). As with daily hindrance job demands, it is conceivable that on days when employees encounter agency challenge job demands and communion challenge job demands, they may profit most from proactive agency behaviors and proactive communion behaviors that mobilize agency resources and communion resources, respectively. For example, by designing competition and designing fun, employees may create the necessary agency resources and communion resources for meeting a deadline or a negotiation by, for example, fostering interpersonal respect and perseverance.

### Conclusion

In conclusion, this study shows that the agency–communion distinction is important for understanding how hindrance job demands undermine performance outcomes and how to deal with these hindrance job demands. Work engagement and performance outcomes were lower on days when agency hindrance job demands and communion hindrance job demands were high. However, on days when employees designed competition or fun in their work activities, the negative associations of hindrance job demands with work engagement and performance were substantially attenuated. In conclusion, the present study highlights the significance of employee initiatives during work and suggests that it pays to play.

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