

**Are All Challenges Created Equal? Goal Orientations and their Relationship with
Private and Public Challenging Job Experiences**

Roy B.L. Sijbom^{a*}, Bernd Carette^b, and Nicoletta G. Dimitrova^{bc}

^a University of Amsterdam

Department of Work and Organizational Psychology
P.O. Box 15919, 1001 NK Amsterdam, The Netherlands

Tel: +31 20 525 7069

E-mail: R.B.L.Sijbom@uva.nl

^b Ghent University

Department of Personnel Management, Work and Organizational Psychology

Henri Dunantlaan 2, 9000 Ghent, Belgium

E-mail: carette.bernd@gmail.com

^c University of Greenwich Business School

Department of Human Resources and Organisational Behaviour

Old Naval College, Park Row SE10 9LS, Greenwich.

E-mail: N.Dimitrova@Greenwich.ac.uk

* Corresponding author

Abstract

To advance theory on the motivational underpinnings of striving for challenge, we propose and empirically demonstrate that challenging job experiences can be meaningfully subdivided into two categories –private and public challenging job experiences – based on characteristics of the challenging job experience. Drawing on achievement goal theory, in a two-wave field study among 216 employees (Study 1) and a multi-source field study among 326 employees (Study 2) we found initial evidence regarding differential effects of employees' mastery-approach and performance-approach goals in relation to private and public challenging job experiences. Furthermore, Study 2 showed a negative relationship between performance-approach goals and supervisor-rated in-role job performance when public challenging job experiences were low. Theoretical and practical implications of these findings are discussed.

Keywords: job challenge; goal orientation; challenging experiences; mastery goal orientation; performance goal orientation

Are All Challenges Equal? Goal Orientations and their Relationship with Private and Public Challenging Job Experiences

Challenging job experiences have been considered to be one of the most important determinants of employee development (DeRue & Wellman, 2009; Dong, Seo, & Bartol, 2014). Notwithstanding the developmental possibilities of challenging job experiences, people may differ in the extent to which they are motivated, and thus willing, to perform challenging tasks. People's motivation is a fundamental driving force of performing specific tasks, yet surprisingly little research examined motivational factors that may cause employees to perform challenging tasks in their jobs (for an exception, see Preenen, Van Vianen, & De Pater, 2014).

Drawing on achievement goal theory (Dweck & Leggett, 1988; Elliot & Church, 1997), we investigate employees' goal orientation as a motivational construct that may affect how individuals approach, interpret and perform challenging tasks. Goal orientation represent competence-relevant aims that individuals adopt and pursue in achievement situations (DeShon & Gillespie, 2005). Our core argument is that individuals' desire to enhance competence (i.e., mastery goals) or to demonstrate competence (i.e., performance goals) may determine their preference for particular challenging job experiences. Individuals pursuing mastery goals are primarily focused on learning and development (Dweck, 1986), which makes challenging tasks that hold developmental potential interesting for them. In contrast, individuals pursuing performance goals may only be interested in challenging tasks in which competence can be demonstrated to others while gaining favorable judgments (e.g., recognition and external rewards) (Dweck, 1986; Farr, Hofmann, & Ringenbach, 1993). Based on characteristics of challenging job experiences, we argue that a fruitful distinction can be made between, what we label, *private challenging job experiences* and *public challenging job experiences*. Accordingly, we examine differential effects of individuals' goal orientation in relation to these challenging job experiences.

Although employees may have a preference for particular challenging tasks, oftentimes challenging tasks are a relatively fixed part of the working environment. Therefore, drawing on insights from the person-environment (P-E) fit literature (Edwards, Caplan, & van Harrison, 1998), we also examine the impact that alignment between employees' goal orientation and challenging job experiences might have on one's in-role job performance. Specifically, we expect individuals pursuing performance-approach goals to be sensitive to (mis)alignment of challenging job experiences because of their motivation to demonstrate competence relative to others. Together, our research advances theory and practice on challenging tasks through the implication that challenging job experiences differ, and that employees might prefer different challenging job experiences depending on their motivational goal strivings.

Conceptualization of Goal Orientation

Goal orientations are perceptual-cognitive frameworks that describe how individuals define, interpret, and respond to competence-relevant achievement situations, including the workplace (DeShon & Gillespie, 2005; Dweck & Leggett, 1988). Two main types of goal orientations that individuals adopt in achievement situations are mastery goals (also termed learning goals) and performance goals (Dweck, 1986; Farr et al., 1993). Individuals who pursue mastery goals are motivated to develop competence by acquiring new skills and mastering new situations. Individuals who pursue performance goals are motivated to demonstrate and validate one's competence by seeking favorable judgments and by outperforming others (Elliot & Church, 1997; Dweck, 1986).

Researchers further bifurcated mastery goals and performance goals in approach and avoidance versions (Elliot, 1999; Elliot & McGregor, 2001). Approach goals are directed towards positive or desirable events, whereas avoidance goals are directed towards avoiding negative or undesirable outcomes (Elliot & McGregor, 2001). This resulted in a 2×2 framework, or four-factor model, of goal orientations (Baranik, Barron, & Finney, 2007; Elliot & McGregor, 2001), in which four different types of goal orientations people can pursue are

distinguished. Mastery-approach goals reflect a desire to perform better than one has done before; mastery-avoidance goals reflect a desire to avoid performing worse than one has done before; performance-approach goals reflect a desire to demonstrate competence relative to others and to gain favorable judgement about it; and performance-avoidance goals reflect a desire to avoid demonstrating incompetence relative to others and to avoid negative judgments about it (Baranik et al., 2007; Elliot & Church, 1997; Elliot & Moller, 2003).¹

Although different conceptualizations of goal orientations are used in the literature (see DeShon & Gillespie, 2005), we conceptualize and operationalize goal orientation as an individual trait-like variable that is relatively stable over time in a specific achievement domain (i.e., work domain) (Payne, Youngcourt, & Beaubien, 2007; VandeWalle & Cummings, 1997). That is, in our study, we focus on the effects of stable employees' goal orientations specific to the work domain.

Challenging job experiences

Challenging job experiences fulfill a pivotal role in the process of individual skill development (e.g., McCauley, Ruderman, Ohlott, & Morrow, 1994). This is because challenging job experiences put employees in dynamic situations for which existing tactics and routines are inadequate and that require new ways of dealing with work situations. Oftentimes, these tasks are complex and decisions need to be made under conditions of uncertainty and risk. Although execution of challenging tasks may be stressful, it may result in positive feelings (Cavanaugh, Boswell, Roehling, & Boudreau, 2000). That is, if employees successfully handle challenging job experiences, they can feel a sense of achievement or they might receive material gains such as a better chance for promotion and pay raises.

The extent to which a job is challenging depends on the presence of a number of job features relating to the roles, responsibilities, tasks, and context in which one is operating (DeRue & Wellman, 2009; McCauley et al., 1994). In line with prior research, we conceive challenging job experiences as “job characteristics that provide individuals with the

opportunity and motivation to learn and that may result in the development of a wide range of skills, abilities, insights, knowledge, and values” (De Pater, Van Vianen, Bechtoldt, & Klehe, 2009, p. 299) Employees will thus experience challenge when there are unusual problems to solve, risky decisions to be made, and/or difficult obstacles have to be overcome (De Pater, Van Vianen, Fischer, & Van Ginkel, 2009).

Distinguishing Between Private and Public Job Challenge

Although all challenging job experiences share the notion of complexity and the holding of a developmental potential (e.g., DeRue & Wellman, 2009), we argue that challenging job experiences may also differ on other relevant aspects. First, challenging job experiences may differ in the extent to which the content of the work task is clearly defined. Challenging job experiences may consist of clear expectations of what has to be done (e.g., give a presentation), but they may also be more ambiguous (e.g., deal with tasks that are relatively new for you). Second, tasks can be executed in sight (high visibility) or out of sight of others (low visibility), meaning that the extent to which progress and outcomes are visible to others may differ. Taking these distinguishing features into account may help to improve our understanding of why individuals are motivated, and thus willing, to execute certain types of challenging job experiences. Therefore, we propose to make a distinction between private and public challenging job experiences.

We conceptualize private challenging job experiences as work activities that are challenging, are relatively ambiguous regarding task content (i.e., unclear which activities are involved), and for which progress and/or outcomes are not necessarily visible to others. Although these challenging experiences can entail some level of visibility, this is not characteristic of these experiences. In contrast, we conceptualize public challenging job experiences as work activities that are challenging, are clearly defined, and progress and outcomes are inextricably linked with visibility to others (e.g., tasks carried out in sight of others). This conceptualization is in line with the notion that some challenges can be seen as

opportunities to demonstrate competence visible to others (Dragoni, Tesluk, Russell, & Oh, 2009). The visibility of outcomes and progress to others, makes public challenging job experiences excellent opportunities for gaining status, rewards, and acknowledgement within a team and/or organization.

Mastery-Approach Goals and Private and Public Challenging Job Experiences

Individuals pursuing mastery-approach goals are focused on developing and gaining competence by acquiring new skills and mastering new situations (Elliot & McGregor, 2001). Their focus on skill development implies an intrinsic interest in understanding and mastering challenging tasks. Given that both private and public challenging job experiences contain opportunities for task mastery, it turns them into excellent learning experiences to fulfill their developmental goals. Research evidence indeed shows that mastery-approach goals are positively related to performing challenging tasks (Preenen et al., 2014). Furthermore, mastery-approach goals are associated with adaptive responses in handling challenging situations, such as enhanced explorative interest and learning opportunity appraisals in response to voiced ideas (Sijbom, Janssen, & Van Yperen, 2015a, 2015b). In line with previous findings, we expect that employees' mastery-approach goals will be positively related to private and public challenging job experiences because these experiences foster an intrinsic interest in the task itself, like learning new skills and mastering new situations. Accordingly, we hypothesize:

Hypothesis 1: Employees' mastery-approach goals are positively related to private (1a) and public (1b) challenging job experiences.

Mastery-Avoidance Goals and Private and Public Challenging Job Experiences

Individuals pursuing mastery-avoidance goals focus on the preservation of existing competencies and skills (Elliot & McGregor, 2001). Consequently, they may primarily focus on tasks that are familiar, well-understood, and allow for evaluation of existing skills. Indeed, they prefer nonchallenging tasks over challenging tasks because the latter may make stagnation

of development salient (Elliot & McGregor, 2001). Given that private and public challenging job experiences allow for learning new skills, employees pursuing mastery-avoidance goals may be actively seeking for easier but not for more challenging tasks. Although research on mastery-avoidance goals is scarce, the available research provides some evidence for our argumentation. For example, mastery-avoidance goals have shown to be deleterious for performance improvement (Van Yperen, Elliot, & Anseel, 2009). Also, having an avoidance-orientation is negatively linked to seeking challenging job experiences (Elliot, 1999). However, research by Preenen, Van Vianen, and De Pater (2014) found a null relationship between mastery-avoidance goals and performance of challenging tasks. Based on our argumentation and previous findings, we hypothesize the following:

Hypothesis 2: Employees' mastery-avoidance goals are negatively related to private (2a) and public (2b) challenging job experiences.

Performance-Approach Goals and Public Challenging Job Experiences

Employees pursuing performance-approach goals are focused on demonstration of competence and outperforming others (Dweck, 1986; Elliot & Moller, 2003). Consequently, they may primarily focus on challenging job experiences that are visible to others because this is instrumental in appearing competent and for gaining favorable judgments. That is, by executing public challenging job experiences, others (i.e., leaders, colleagues) may notice how well one is executing challenging work tasks. Likewise, excelling on tasks that are more complicated than those of one's coworkers might serve the purpose of showing that one performs better than others. Additionally, performing well on visible challenging tasks may result in external rewards, such as acknowledgement or attainment of favorable judgments (VandeWalle & Cummings, 1997), which may be perceived as an affirmation of superior ability and will be valued more by individuals pursuing performance-approach goals.

Given that individuals pursuing performance-approach goals want to secure favorable evaluations (VandeWalle & Cummings, 1997), they are likely to use rehearsal and preparation of activities as learning strategies (Elliot, McGregor, & Gable, 1999; Steele-Johnson, Beauregard, Hoover, & Schmidt, 2000). That is, by rehearsing and preparing the activities that need to be executed, they are able to perform well on these tasks. Especially tasks for which the content is (relatively) clear do allow for (a certain degree of) preparation and rehearsal. Accordingly, performance-approach goals can be expected to be positively related to public challenging job experiences because these tasks provide clarity about which activities are involved and may thus allow for such rehearsal. We do not expect performance-approach goals to be related to private challenging job experiences because execution of these tasks is associated with less visibility. Also, there is more ambiguity on which activities are involved, making these tasks less suitable for rehearsal. Taken together, we hypothesize the following:

Hypothesis 3: Employees' performance-approach goals are positively related to public challenging job experiences.

Performance-Avoidance Goals and Public Challenging Job Experiences

Individuals motivated by performance-avoidance goals are striving to avoid incompetence relative to others (Elliot & Church, 1997). Challenging achievement situations in which their performance is directly visible to others (i.e., public challenging job experiences) may therefore be perceived as threatening. That is, challenging job tasks entail the risk of failure and thereby demonstration of inability or poor performance relative to others. Given this perceived risk and the motivation to avoid negative evaluative judgments, performance-avoidance goal motivated individuals may prefer to perform nonchallenging tasks, on which demonstration of incompetence can be avoided. As such, they will actively avoid to seek and execute public challenging job tasks.

In line with this argumentation, meta-analytic results showed that performance-avoidance goals were negatively linked to the difficulty of self-set goals (Payne et al., 2007), meaning that performance-avoidance goals are negatively related to challenge seeking. Furthermore, research consistently showed that performance-avoidance goals are linked to maladaptive outcomes, such as reduced interest in the task at hand, self-handicapping, and anxiety (e.g., Elliot & Church, 1997; Elliot & McGregor, 2001). Accordingly, we hypothesize:

Hypothesis 4: Employees' performance-avoidance goals are negatively related to public challenging job experiences.

The Effects of Goal Orientation and Challenging Job Experiences on In-Role Job Performance

Although employees may prefer certain challenging job experiences, oftentimes these experiences can be regarded as a relatively fixed characteristic of tasks that need to be executed. As such, these tasks may be more privately or publicly challenging in nature. We expect that a (mis)fit between employees' goal strivings and the nature of challenging tasks might impact in-role job performance. Here, we particularly focus on the effects of performance-approach goals for two reasons. First, meta-analytic findings show that the relationship between performance-approach goals and performance is inconsistent (Payne et al., 2007), which suggests the likely presence of moderator variables. Second, for employees pursuing performance-approach goals, in-role job performance may serve as information for social comparison and competence demonstration (Elliot, 1999). Accordingly, the association between individuals' performance-approach goals and in-role job performance can best be understood by taking the public challenging characteristics of the job experiences into account.

We expect that the relative presence/absence of public challenging job experiences may affect the motivation of individuals with performance-approach goals to perform well on these tasks. When challenging job experiences are highly present in one's tasks, this means the

performance is visible to others. Under these conditions, individuals pursuing performance-approach goals may be motivated to perform well because their performance directly serves their goal of competence demonstration. That is, performing well allows them to secure external approval and positive external evaluations. When job tasks are characterized by relatively low levels of public challenging job experiences, performance is less visible to other members in the organization. Under these conditions, individuals pursuing performance-approach goals may be less motivated to perform well because it is not instrumental to achieving their goal of demonstrating competence relative to others. Accordingly, a negative relationship can be expected under these conditions. Therefore we hypothesize the following:

Hypothesis 5: The relationship between employees' performance-approach goals and in-role job performance is moderated by public challenging job experience, such that this relationship is positive (negative) when public challenging job experience is high (low).

Study 1

Method

Participants and procedure. We conducted a temporally lagged survey design with a four-month time lag. We used a convenience sample of Belgian employees who were invited personally or by email via professional network contacts (e.g., LinkedIn) to participate in the study. Participants received either a digital questionnaire or a hardcopy. At Time 1, 650 questionnaires were distributed. We received 555 questionnaires of which 452 could be used (T1 response rate = 69.5%). At Time 2, we were able to contact 360 participants to fill out the questionnaire. We received 256 questionnaires of which 226 could be used for further analyses (T2 response rate = 62.8%). Our final sample, therefore, consisted of 226 participants who completed all relevant study variables at T1 and T2 (overall response rate = 34.8%; 52.2% were female; 70.4% were employed in private sector organizations). The mean age was 38.40 years ($SD = 11.27$) and average tenure was 14.87 years ($SD = 11.47$).

Measures

Goal orientation (T1). Employees' goal orientations were assessed using the 18-item Goal Orientation in a work domain measure (Baranik et al., 2007). Scale items were translated into Dutch using a translation back-translation procedure. The items were rated on a scale ranging from 1 (*totally disagree*) to 5 (*totally agree*). An example item for performance-approach goal is (four items) "I like to show that I can perform better than my coworkers"; for mastery-approach goal (four items) "I often look for opportunities to develop new skills and knowledge"; for performance-avoidance goal (four items) "I would avoid taking on a new task if there was a chance that I would appear rather incompetent to others"; and for mastery-avoidance goal (six items) "At work, I focus on not doing worse than I have personally done in the past on my job".

Private and public challenging job experiences (T2). Private challenging job experiences were measured using four items, from the 10-item job challenge measure of De Pater et al. (2010), that were conceptually aligned with our construct. An example item is "In my job I have to deal with tasks that are relatively new to me and that, strictly speaking, are not directly linked to my education and experience". Public challenging job experiences were measured using six items from the measure of De Pater et al. (2010) that were conceptually aligned with our construct. An example item is "It is a part of my job to regularly make my appearance in public, for instance, to present my work at conferences or represent my organization". In Table 1 all items for the scales are presented. For both scales, respondents indicated, on a scale ranging from 1 (*does not apply to me at all*) to 5 (*very much applies to me*), the extent to which challenging job aspects were applicable to their current job situation. In the next section, we provide further evidence for the validity of these two dimensions.

Control variables (T1). We measured gender (0 = male; 1 = female) as a potential control variable because previous research showed that women are given fewer challenging assignments than their male colleagues (De Pater et al., 2010).

Data Considerations and Preliminary Analyses

Our data included missing values (0.16% of all values were missing). As Little's MCAR test ($\chi^2 [214, N = 226] = 233.73, p = .17$) was not significant (i.e., missing values are completely random), the expectation maximization (EM) estimation in SPSS 24.0 was used to impute the missing values (Collins, Schafer, & Kam, 2001). Because some of the predictors were correlated (see Table 1) variance inflation factors (VIF) were examined. The VIF values (< 1.43) indicated that multicollinearity was not a problem in these data.

To examine the viability of our two-dimensional job challenge model, we examined the scales' internal reliability and conducted an Exploratory Factor Analysis using Oblimin Rotation on the 10 items. The reliability of the four-item private challenging job experience scale was relatively low ($\alpha = .68$). Removing item 6 (see Table 1) would improve the reliability of the scale ($\alpha = .73$). From our EFA, two factors emerged. However, item 5 (see Table 1 for exact item) loaded high on both factors. Based on these considerations, we excluded both item 5 and item 6 and reran the EFA. The factor loadings are presented in Table 1 and provided initial support for our two-dimensional job challenge model. Accordingly, we used three items to measure private challenging job experience ($\alpha = .73$) and five items to measure public challenging job experience ($\alpha = .80$).

To further validate the conceptual distinction between private and public challenging job experiences, we examined whether both scales differed on clarity of work task (e.g., "This work task is clearly defined"; 4 items, $\alpha = .95$) and visibility of task execution (e.g., "The execution of this work task is visible to others"; 4 items, $\alpha = .93$). For each challenging job experience, participants answered questions related to these specific characteristics using a scale ranging from 1 (*totally disagree*) to 5 (*totally agree*). Results of this study ($N = 153$ using MTurk; $M_{\text{age}} = 37.11$ years, 39,5% women, $M_{\text{tenure}} = 15.87$ years) showed that public challenging job experiences were more clearly defined ($M = 3.40, SD = 0.69$) than private challenging job experiences ($M = 3.10, SD = 0.91$), $t(152) = 5.21, p < .001$. Also, the visibility

of task execution was higher for public challenging job experiences ($M = 3.86$, $SD = 0.60$) than for private challenging job experiences ($M = 3.43$, $SD = 0.65$), $t(152) = 7.86$, $p < .001$. These results provide additional evidence for our conceptual distinction.

Finally, we conducted confirmatory factor analyses (CFAs) using AMOS 25.0 with maximum likelihood estimations. Results showed that our two-dimensional job challenge model provided an acceptable fit to the data: $\chi^2(19) = 35.087$, $p = .014$; $CFI = .973$; $TLI = .948$; $RMSEA = .061$. The fit was significantly better than the fit of a unidimensional model, $\Delta\chi^2(1) = 25.640$, $p < .001$; $CFI = .931$; $TLI = .875$; $RMSEA = .095$.

Results

Table 2 presents descriptive statistics, correlations, and reliability estimates. We conducted a path analysis using AMOS 25.0 to test Hypotheses 1-4. We covaried the four goal orientations with each other. Also, given the substantial correlation between the two dependent variables ($r = .63$), we correlated the error distributions of the two dependent variables with each other to model the unexplained correlation between them. Tests of model fit were not relevant because the tested model was fully saturated (Hoyle, 2012).

The results (see Table 3) showed that mastery-approach goals were positively and significantly related to both public challenging job experiences ($b = .47$, $SE = .11$, $\beta = .31$, $p < .001$) and private challenging job experiences ($b = .43$, $SE = .11$, $\beta = .27$, $p < .001$), thereby supporting Hypothesis 1a and 1b. Mastery-avoidance goals were negatively and significantly related to both public challenging job experiences ($b = -.23$, $SE = .10$, $\beta = -.15$, $p = .025$) and private challenge job experiences ($b = -.27$, $SE = .10$, $\beta = -.19$, $p = .005$), thereby supporting Hypothesis 2a and 2b. In support of Hypothesis 3, performance-approach goals were significantly related to public challenging job experience, $b = .16$, $SE = .07$, $\beta = .15$, $p = .029$. Performance-avoidance goals were not significantly related to public challenging job experiences ($b = .05$, $SE = .06$, $\beta = .05$, $p = .463$). Thus, Hypothesis 4 was not supported. For completeness, both performance-approach and performance-avoidance goals were not

statistically related to private challenging job experiences. Given that gender was significantly correlated with both private and public challenging job experiences (see Table 2), we also tested a model with gender included as a control variable (see Table 3). The results remain similar, except that the relationship between mastery-avoidance goals and private challenging job experiences became marginally significant.

Study 2

The purpose of Study 2 is twofold. First, we aim to replicate Hypotheses 1-4 using a different sample. Second, we examine public challenging job experiences as a moderator on the relationship between employees' performance-approach goals and in-role job performance to test Hypothesis 5.

Method

Sample and Procedure. We used a sample of work groups from several industries in Belgium. Trained students collected data as part of a work psychology course. Students contacted organizations regarding their groups' interest in participating. A survey package – containing the supervisor survey, employee surveys, and envelopes – was given to the supervisor. A cover letter explained the nature of the research and assured anonymity and confidentiality to participants. The supervisor of each work group was asked to inquire about subordinates' interest in the survey to ensure voluntary participation and then to randomly distribute surveys to five employees within their work group. The supervisor rated the individual performance of the five selected employees. On completion, respondents sealed their survey in an envelope and returned it to their supervisor, from which they were collected by the student.

A sample of 380 employees and their 76 supervisors received questionnaires. Because of incomplete data, 57 employees were excluded yielding an effective response rate of 85.0%. The final sample consisted of 326 employees nested in 69 groups. Group sizes ranged from 3 to 5 ($M = 4.72$; $SD = 0.57$). Of the employees responding, 37.4% were men, and 58.6% had a

college degree or higher. Their ages ranged from 17 to 64 years ($M = 38.27$; $SD = 12.06$), 70.6% of the employees had a full-time position, and mean organizational tenure was 10.82 years ($SD = 9.96$). On average, employees worked 5.31 years ($SD = 5.54$) with their current supervisor. The main sectors represented in the sample included healthcare (16.4 %), retail, (15.2 %), public sector (12.1 %), financial services (11.8%), and manufacturing (7.7%).

Measures

Goal orientation. Employees' goal orientations were assessed with the same scales as in Study 1. Items were rated on a scale ranging from 1 (*totally disagree*) to 7 (*totally agree*).

Private and public challenging job experiences. Private and public challenging job experiences were measured using the same 3-item and 5-item scales as in Study 1. The response scale ranged from 1 (*does not apply to me at all*) to 7 (*very much applies to me*). The two-dimensional job challenge model revealed an acceptable fit to the data ($\chi^2(19) = 57.485$, $p < .001$; $CFI = .968$; $TLI = .953$; $RMSEA = .079$) and was significantly better than the fit of a unidimensional model, $\Delta\chi^2(1) = 49.342$, $p < .01$; $CFI = .928$; $TLI = .900$; $RMSEA = .116$.

In-role job performance. To measure in-role job performance, respondents' immediate supervisors were asked to rate the in-role job performance of each employee using the following four items (cf. Williams & Anderson, 1991): (1) "This employee adequately completes assigned duties" (2) "This employee meets formal requirements of the job", (3) "This employee maintains high quality standards at work", and (4) "This employee increases the pace of work if necessary to meet a deadline". The response scale ranged from 1 (*not at all*) to 7 (*very much*).

Control variable. Similar to Study 1, gender (0 = male; 1 = female) was measured as a potential control variable.

Data Considerations and Preliminary Analyses

Our data included missing values. Little's MCAR test was significant ($\chi^2 [315, n = 326] = 448.00$, $p < .001$), meaning that the data was not missing completely at random. However,

given that no systematic pattern of missing values was observed and the number of missing values was small (0.16% of all values were missing), we did use the expectation maximization (EM) estimation in SPSS 24.0 to impute the missing values (Arbuckle, 1996). VIF values (≤ 1.65) indicated that multicollinearity was not a problem in these data.

Results and Discussion

Table 4 presents descriptive statistics, correlations and reliability estimates. We conducted the same analytical procedure as in Study 1 to test Hypotheses 1-4. The results are presented in Table 3. Hypotheses 1a, 1b, and 3 were supported and thus replicated in Study 2. Hypotheses 2a and 2b were not supported and therefore not replicated in Study 2. Like Study 1, we did not find support for Hypothesis 4 in Study 2.

Hypothesis 5 contained supervisor-rated in-role job performance as the dependent variable. Because multiple employees were rated by the same supervisor, the data may not be completely independent. The intraclass correlation coefficient was marginal statistically significant ($ICC1 = 0.10, p = .058$). Consequently, we accounted for this nested multilevel structure by allowing a random intercept to control for supervisor effects on job performance ratings. We used linear mixed models in SPSS 24.0 with restricted maximum likelihood estimation method to test our hypothesis. All continuous variables were standardized (Aiken & West, 1991).

The results are presented in Table 5. As shown in Model 1, performance-approach goals were negatively related to in-role job performance ($\gamma_{10} = -0.18, SE = 0.07, t(309.51) = -2.70, p = .007$), whereas mastery-approach goals were positively related to in-role job performance ($\gamma_{30} = 0.20, SE = 0.06, t(306.10) = 3.21, p = .001$). The results of Model 2 showed that the interaction between performance-approach orientation and public job challenge was significant ($\gamma_{70} = 0.13, SE = 0.06, t(304.45) = 2.27, p = .024$) and is plotted in Figure 1. Simple slope analyses (Aiken & West, 1991) showed a negative relation between performance-

approach goals and job performance under conditions of low (-1 SD) public challenging job experiences, $\gamma = -0.30$, $SE = 0.08$, $t(294.51) = -3.59$, $p < .001$, and no significant relation under conditions of high (+1 SD) public challenging job experiences, $\gamma = -0.04$, $SE = 0.09$, $t(311.12) = -0.38$, $p = .701$. Therefore, Hypothesis 5 was partially supported. No other interactions were statistically significant.²

General Discussion

In two studies we showed that challenging job experiences can be meaningfully distinguished into two subcomponents, namely private and public challenging job experiences. Applying this more fine-grained conceptualization enabled us to show that performance-approach goals were only positively related to public challenging job experiences, whereas employees' mastery-approach goals were positively related to both private and public challenging job experiences. Furthermore, in Study 2 we showed that when a work environment was characterized by low levels of public challenging job experiences, the relationship between employees' performance-approach goals and in-role job performance was negative. High levels of public challenging job experience buffered this negative relationship. Together, these two studies provide initial evidence that distinguishing on the *nature* of challenging job experiences may help to advance our understanding of the motivational underpinnings of performing challenging job experiences.

In Study 2, partial support was found for our interaction hypothesis. A possible explanation might relate to the negative main effect between performance-approach goals and in-role job performance that, although not anticipated, was found (cf. Janssen & Van Yperen, 2004). Rather than leading to an increase in in-role job performance, the negative relationship between performance-approach goals and in-role job performance was buffered under conditions of high public challenging job experiences. Hence, high challenging job experiences

may, in fact, be motivating for employees pursuing performance-approach goals, but they do not translate into enhanced in-role job performance.

Theoretical Implications

Job challenge received notable research attention as it is considered to be one of the most important determinants of employees' development. (DeRue & Wellman, 2009; Dong et al., 2014). Our findings contribute to this emerging body of research in several ways. First, we redirect prior theory by providing empirical evidence in support of a two-dimensional job challenge model. In particular, we suggest that challenging job experiences can be subdivided in private and public challenging job experiences, based on characteristics like clarity of work tasks and visibility of progress and outcomes. Second, we contribute to the job challenge literature by empirically demonstrating that individuals' performance-approach goals are related to their willingness to perform public challenging job experiences only. This finding is in line with the idea that pursuit of performance-approach goals is associated with a desire for status (Levy, Kaplan, & Patrick, 2004), and the importance of external evaluations to define task success (Darnon, Dompnier, Gilliéron, & Butera, 2010). In this respect, we provide a more-fine grained understanding regarding motivational underpinnings of challenging job experiences. Finally, in line with P-E fit theory, we show that challenging aspects of the work environment are important to take into account, particularly for individuals pursuing performance-approach goals, as a misalignment with motivational preferences may hamper in-role job performance.

Practical Implications

Our findings have several noteworthy implications for managerial practice. Given the developmental potential inherent to challenging job experiences, it is important to give people challenging job experiences in order to keep them on board (Heavey, Holwerda, & Hausknecht, 2013). Individuals pursuing mastery-approach goals and performance-approach goals may be motivated by challenging job experiences – yet they differ in the nature of

challenging tasks that motivates them. Organizations may serve the aims of mastery-approach goal individuals by stimulating them to execute both private and public challenging job experiences, whereas for individuals with performance-approach goals solely public challenging job experiences are stimulating. In short, it is important to adjust the nature of challenging job experiences to employees' motivational strivings in order to retain a highly performing workforce.

Limitations and Future Research

Our study is not without limitations. First, our two-wave study design used in Study 1 does not allow to draw causal conclusions about the relationship between employees' goal orientation and challenging job experiences. Yet, we assume that reversed causality is less plausible because goal orientations are considered to be rather stable trait-like individual characteristics (DeShon & Gillespie, 2005; Dweck & Leggett, 1988). Nevertheless, it would be useful for future research to directly test the causal relationship between goal orientation and private/public challenging job experience through a longitudinal or experimental design. Second, we focused on employees' goal orientation as an important motivational antecedent. Future research should investigate a broader range of antecedents of private and public challenging job experiences. Third, the results regarding mastery-avoidance goals were inconclusive, meaning that future research may further examine this relationship by taking into account possible moderating variables, such as trait self-efficacy. Finally, the mechanism linking goal orientation to challenging work tasks remains unclear. Some potential mechanisms include job crafting, selection, placement or promotion in roles requiring public challenge (e.g., a person with high performance-approach goals being selected by their supervisor for publically challenging tasks due to their good prior performance) (e.g., Schneider, 1987; Wrzesniewski & Dutton, 2001). Future research should further investigate those mechanisms. In conclusion, this study challenges scholars and practitioners to no longer think of job challenge as a monolithic construct, but instead consider it in a more nuanced way.

FOOTNOTES

¹ Our conceptualization of performance-approach goals and performance-avoidance goals consists of a competence demonstration aspect and an (normative) evaluation aspect (cf. Elliot & Church, 1997).

² For the sake of completeness, in an additional analysis we investigated the interactions between goal orientation and private challenging job experiences. No significant interactions were found.

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Table 1

Standardized factor loadings of a two-dimensional job challenge CFA model

Job Challenge Feature	Designated challenge dimension	Factor 1	Factor 2
In my job I have to deal with tasks that are relatively new to me and that, strictly speaking, are not directly linked to my education and experience.[1]	Private	0.907	
It is my responsibility to start up or try out something new or to initiate strategic changes in my division.[2]	Private	0.608	
I am responsible for a diverse range of job responsibilities. For instance, I am responsible for several projects, services, workgroups, technologies, etcetera.[3]	Private	0.669	
It is my responsibility to manage relationships with important external contacts and organizations, such as clients, commissioners and specific occupational groups.[4]	Public		0.511
<i>For others, mainly the management, I personify a specific project within my organization.[5]</i>	<i>Public</i>		
<i>It is my responsibility to co-operate with individuals originating from diverse cultures or organizations or with organizations in other countries.[6]</i>	<i>Private</i>		
It is a part of my job to regularly make my appearance in public, for instance, to present my work at conferences or represent my organization.[7]	Public		0.787
It is my responsibility to perform activities that are highly visible for others in my organization, for instance for (top) management. As a consequence, my successes and failures are easily observable to others. [8]	Public		0.834
To function effectively, I have to use my influence with others, who formally are not subjected to my authority, such as (top) management and important individuals working for other divisions.[9]	Public		0.808
It is my responsibility to carry out tasks that my colleagues consider risky.[10]	Public		0.617

Table 2

Descriptive Statistics, Correlations, and Reliability Estimates of Study 1 Variables.

Variable	<i>M</i>	<i>SD</i>	1.	2.	3.	4.	5.	6.	7.
1. Gender (T1)	.52	/							
2. Mastery-approach (T1)	3.88	0.63	-.04	(.75)					
3. Performance-approach (T1)	3.01	0.96	-.06	.21**	(.88)				
4. Mastery-avoidance (T1)	3.80	0.66	.11	.16*	.23**	(.74)			
5. Performance-avoidance (T1)	2.55	0.88	.00	-.29**	.34**	.25**	(.86)		
6. Private challenging job experience (T2)	2.90	1.00	-.18**	.29**	.12	-.09	-.12	(.73)	
7. Public challenging job experience (T2)	2.75	0.97	-.22**	.29**	.19**	-.09	-.03	.63**	(.80)

Note. $N = 226$. * $p < .05$, ** $p < .01$. For the dichotomous variable gender, the mean denotes the percentage of females. Reliability estimates (Cronbach's Alpha) are presented on the diagonal.

Table 3

Results of Path Analysis for both Study 1 (n = 226) and Study 2 (n= 326).

<i>Hypothesis</i>	<i>Path</i>	<i>Study 1</i>				<i>Study 1 (gender included as a control variable)</i>				<i>Study 2</i>			
		<i>Estimate</i>	<i>SE</i>	β	<i>p</i>	<i>Estimate</i>	<i>SE</i>	β	<i>p</i>	<i>Estimate</i>	<i>SE</i>	β	<i>p</i>
1A	MAP → PUBLIC	.47	.11	.31	<.001	.46	.11	.30	<.001	.38	.08	.26	<.001
1B	MAP → PRIVATE	.43	.11	.27	<.001	.42	.11	.27	<.001	.33	.08	.25	<.001
2A	MAV → PUBLIC	-.27	.10	-.15	.025	-.24	.10	-.16	.013	-.12	.09	-.09	.169
2B	MAV → PRIVATE	-.23	.10	-.19	.005	-.20	.10	-.13	.050	.07	.09	.05	.436
3	PAP → PUBLIC	.16	.07	.15	.029	.14	.07	.14	.040	.27	.07	.24	<.001
	PAP → PRIVATE	.11	.07	.11	.126	.10	.07	.10	.160	-.00	.07	-.00	.982
4	PAV → PUBLIC	.06	.08	.05	.463	.06	.08	.05	.497	-.07	.07	-.06	.352
	PAV → PRIVATE	-.05	.09	-.04	.578	-.05	.08	-.05	.535	-.04	.07	-.04	.592

Note: MAP = mastery-approach goals; MAV = mastery-avoidance goals; PAP = performance-approach goals; PAV = performance-avoidance goals; PUBLIC = public challenging job experiences; and PRIVATE = private challenging job experiences.

Table 4

Descriptive Statistics and Reliability Estimates of Study 2 Variables, and Correlations among Them.

Variable	<i>M</i>	<i>SD</i>	1.	2.	3.	4.	5.	6.	7.	8.
1. Gender	.63	/								
2. Mastery-approach	5.00	1.07	-.11*	(.84)						
3. Performance-approach	3.79	1.40	-.13*	.30**	(.85)					
4. Mastery-avoidance	4.79	1.10	.02	.14*	.30**	(.82)				
5. Performance-avoidance	3.50	1.37	.07	-.07	.40**	.53**	(.88)			
6. Private challenging job experience	4.73	1.46	-.12*	.26**	.07	.07	-.03	(.72)		
7. Public challenging job experience	3.81	1.56	-.21**	.33**	.27**	-.01	-.03	.67**	(.87)	
8. In-role job performance	5.54	0.98	.08	.15*	-.06	.08	.02	.03	.01	(.85)

Note. $N = 326$. * $p < .05$, ** $p < .01$. For the dichotomous variable gender, the mean denotes the percentage of females. Reliability estimates (Cronbach's Alpha) are presented on the diagonal.

Table 5

Results of HLM Regression for Supervisor-rated In-Role Job Performance (Study 2)

Variable	Model 1		Model 2	
	<i>Coefficient</i>	<i>S.E.</i>	<i>Coefficient</i>	<i>S.E.</i>
Intercept γ_{00}	5.53**	0.06	5.52**	0.07
Performance-Approach (PAP) γ_{10}	-0.18**	0.07	-0.17*	0.07
Performance-Avoidance (PAV) γ_{20}	0.07	0.07	0.06	0.07
Mastery-Approach (MAP) γ_{30}	0.20**	0.06	0.19**	0.06
Mastery-Avoidance (MAV) γ_{40}	0.05	0.07	0.05	0.07
Private Job Challenge (PRI) γ_{50}	-0.03	0.07	-0.04	0.07
Public Job Challenge (PUB) γ_{60}	0.03	0.08	0.05	0.08
PAP x PUB γ_{70}			0.13*	0.06
PAV x PUB γ_{80}			-0.04	0.06
MAP x PUB γ_{90}			-0.07	0.06
MAV x PUB γ_{100}			0.01	0.06
-2 log-likelihood	914.39		924.54	

Note. $N = 326$. ** $p < .01$, * $p < .05$. MAP = mastery-approach goals; MAV = mastery-avoidance goals; PAP = performance-approach goals; PAV = performance-avoidance goals; PUB = public challenging job experiences.

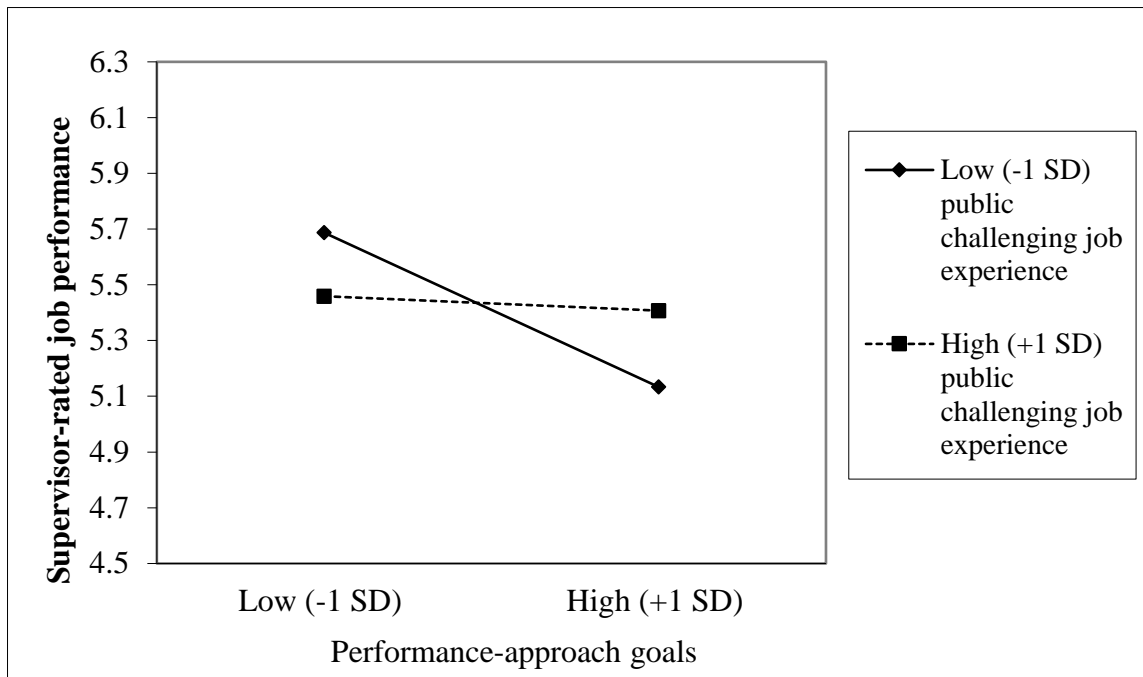


Figure 1. The interaction effect of performance-approach goals and public challenging job experiences on supervisor-rated in-role job performance (Study 2).