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Innovative Work Behavior and Personality Traits: Examining the Moderating Effects of
Organizational Tenure

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Stephen A. Woods
Surrey Business School, University of Surrey, UK

Michael Mustafa
University of Nottingham, UK

Neil R. Anderson
Brunel Business School, Brunel University, UK
&
Benjamin Sayer
Aston Business School, Aston University, UK

Address for Correspondence:

Professor Stephen A. Woods Ph.D.
Department for People and Organizations
Surrey Business School
University of Surrey
Guildford
GU2 7XH
UK
s.a.woods@surrey.ac.uk

Abstract

Purpose: The literature on individual differences in innovative work behavior reveals inconsistencies in the relations of personality traits and tenure on innovation at work. To provide greater clarity about the effects of these antecedents, this paper reports a study of the moderating effects of tenure on the associations of traits and innovative work behavior, and applies a theoretical lens based on trait-activation theory.

Methodology: 146 employees of a UK based financial institution completed measures of Conscientiousness and Openness, and had three aspects of innovative work behavior (idea generation, promotion, and realization) rated by their line-supervisor. All participants were on graduate training programmes. Hierarchical regression analyses were used to test the moderating effects of tenure on the associations of the self-reported traits with the supervisor-rated innovative work behavior outcomes.

Findings: Tenure moderated the effects of Conscientiousness on innovative work behavior, with highly conscientious employees being less innovative with longer tenure. Tenure moderated the effect of Openness with idea generation with highly open employees generating more ideas if they were longer tenured.

Practical Implications: Management of innovation requires differentiated strategies based on the personality traits and tenure of individual employees. Implications for recruitment, socialization and development are discussed.

Originality/Value: This is the first study to examine empirically the interactions of traits and contextual factors (i.e. organizational tenure) on innovative work behavior, framed around a strong theoretical foundation (i.e. trait activation theory). The study also makes notable contributions by measuring innovative behavior using a supervisor-rated and multidimensional approach.

Keywords: Innovative work behavior; personality; tenure; Big Five; Conscientiousness; Openness; innovation; IWB.

Innovative Work Behavior and Personality Traits: Examining the Moderating Effects of Organizational Tenure

How does employee tenure affect the associations between personality and key aspects of innovative work behavior (IWB)? Creativity and innovation at work have been considered as important determinants of organizational performance and success (Janssen, Van de Vliert & West, 2004). In particular, employee IWB has been characterized as a unique organizational asset (Axtell, Holman, Unsworth, Wall, Waterson & Harrington, 2000; Janssen, 2000; Sartori, Favretto & Ceschi, 2013) that can enable organizational success in dynamic environments (Wojtczuk-Turek & Turek, 2015; Yuan & Woodman, 2010), prompting organizations to harness and promote the creative and innovative potential of their employees (Anderson, De Dreu & Nijstad, 2004).

Anderson, Potočnik and Zhou (2014; pg. 4) define IWB as '*Creativity and innovation at work are the process, outcomes, and products of attempts to develop and introduce new and improved ways of doing things. The creativity stage of this process refers to idea generation, and innovation to the subsequent stage of implementing ideas toward better procedures, practices, or products*'. In their review, Anderson et al., (2014) highlight that while individual differences in personality traits are important antecedents of IWB, the nature of their relations is not fully understood because the role of context and job demands in moderating the impact of traits is inadequately elaborated in the literature.

To contribute to the emergent literature on the effects of traits on IWB, we examine the moderating effects of employee tenure. Adopting an interactionist perspective, we propose that the changing job demands experienced by people in the early and later stages of their employment in organizations serve to activate traits in different ways (Woods, Lievens,

De Fruyt & Wille, 2013), resulting in differential associations of two key traits (Openness and Conscientiousness) with IWB for shorter and longer tenured employees.

We examine these effects in a sample of graduate trainees in the financial services sector with varying levels of organizational tenure. Specifically, we investigate the moderating effects of tenure on the associations of Openness and Conscientiousness with supervisor-rated IWB. Our study makes both theoretical and practical contributions to understanding the interplay between tenure and individual antecedents of IWB, and has empirical advantages of a multi-source rating design, comprising supervisor ratings of three aspects of IWB: idea generation, promotion and realization.

Innovative Work Behavior (IWB) and Individual Differences

The consensus in the literature on the conceptual explication of IWB suggests that it comprises three forms of behavior: idea generation, idea promotion, and suggestion implementation (Scott & Bruce, 1994; West 2002), representing different stages of the innovation process (Janssen, 2001). While IWB has been traditionally measured using only a single dimension (Kleynen & Street, 2001; Janssen, 2000; Scott & Bruce, 1994), such an approach may not be sufficient to capture the complex multi-dimensional properties of IWB. Recently, studies have underlined the need to examine aspects of IWB separately (idea generation, promotion and realization) as they may be influenced by different antecedental factors (Niu, 2014; Wisse, Barelds & Rietzschel, 2015). In this particular study we conceptualise and thus operationalize IWB as both a single and a multi-dimensional construct.

Drawing on trait theory, various authors have proposed that individuals vary in their potential to innovate (Amabile, 1988; George & Zhou, 2001; Hammond, Neff, Farr, Schwall & Zhao, 2011; Niu, 2014; Raja & Johns, 2010). Studies examining the effects of the Big Five personality factors (Extraversion, Agreeableness, Conscientiousness, Neuroticism and

Openness; Goldberg, 1999) on IWB have identified Openness and Conscientiousness as two of the most consistent predictors, albeit with conflicting findings (Baer, 2010; Baer & Oldham, 2006; George & Zhou, 2001; Madjar, 2008). To extend this theme of research and following George and Zhou (2001), with respect the present study, rather than explore all of the Big Five, we sought to focus on these two traits because they are a) conceptually most likely to be related to IWB, and b) most consistently evidenced empirically. Given our aim to examine moderation effects on trait-IWB relations, it is logical to focus on the most consistently evidenced traits that exhibit criterion effects. Further, as it has been argued that it is less compelling that other FFM dimensions will have main effects onto innovative work behaviors (George and Zhou, 2001; Anderson et. al., 2014), we accordingly direct our theoretical and empirical contribution to examine novel effects relating to Openness and Conscientiousness in particular.

Openness has been found to be positively associated with IWB (e.g. see Hammond, Neff, Farr, Schwall & Zhao, 2011), reflecting the tendency of people high on Openness to be flexible in their thinking, curious and imaginative (Costa & McCrae, 1992). Unsurprisingly, such individuals are more likely to accept new experiences and change which are critical elements in the innovation process, and the findings in this respect are consistent with extensive research on the association of Openness with creativity (George & Zhou, 2001). Conscientiousness has been reliably associated with job performance in a wide variety of job roles (Barrick & Mount, 1991; Salgado, 1997; Barrick, Mount & Judge; 2001; Shaffer & Postlethwaite, 2013; Ceschi, Constantini, Scalco, Charkhabi & Sartori, 2016), yet the orderly, planful and dependable approach to work (Costa & McCrae, 1992) that likely explains this association, runs counter to the kinds of behavior associated with innovative behavior. Various studies have therefore found a negative relationship between Conscientiousness and generating novel solutions to problems (Feist, 1998; Niu, 2014; Raja & Johns, 2010).

Conceptually, focusing solely on main effects of personality traits on IWB may be unjustified (Niu, 2014). This is because the nature and scope of antecedents of IWB are wide ranging, and so effects of personality may interact in various ways with other individual and contextual variables. For example, Ng and Feldman (2013) report a meta-analysis of the effects of age and tenure on IWB. They found the positive effects of age and tenure on self-reported IWB, suggesting that innovative behavior is influenced to some degree by job-relevant learning and experience. Interestingly, Ng and Feldman (2013) found no evidence of associations of supervisor-rated IWB and tenure to include in their analyses, and also found that the way IWB was measured (either as creativity alone versus the three-part model of Janssen, 2001) moderated findings. The need to examine aspects of IWB separately (idea generation, promotion and realization) is also further underlined in several studies because each may be influenced by different antecedent factors (Niu, 2014; Wisse, Barelds & Rietzschel, 2015). Contextual factors are also important antecedents of IWB. For example, job characteristics have been found to influence IWB (Baer & Oldham, 2006; Zhou & Oldham, 2001). Furthermore, Ng and Feldman (2013) argued that job variables such as industry sector and task characteristics are likely to impact on the scope of innovation potential in specific job roles. Team context variables such as team inputs (composition, team diversity) and processes (task interdependence, cohesion and conflict) have also been found to predict innovation and creativity at work (Hülshager, Anderson & Salgado, 2009).

In short, we argue that to fully understand the influence of personality traits on IWB, an interactionist perspective is needed (e.g. Ekehammar, 1976) in which the interaction of personal and contextual variables are examined. Several studies have taken steps in this direction in studying the relationship between Openness and Conscientiousness with IWB, and suggest that their effects are determined by contextual factors that are particularly relevant to each trait (e.g. Anderson, Potočnik & Zhou, 2014; Hammond et al., 2011; George

& Zhou, 2001). Raja and Johns (2010), for instance, found inconsistent results with respect to the moderating effect of job scope (the extent to which jobs contain aspects outlined in the job characteristics model; Hackman & Oldham, 1976) on the associations of Openness and Conscientiousness with employee creativity. Counterintuitively, they found Openness was strongly positively related to creativity under conditions when the employees' job scope was low. George and Zhou (2001) found positive feedback to attenuate the innovative behavior among employees who are high on Openness when performing more heuristic tasks. Conversely, their study also showed that when supervisors engage in close monitoring and coworkers are unsupportive of innovative behavior, highly conscientious employees may be more likely to exhibit low levels innovative behavior. Similarly, Baer and Oldham (2006) showed that Openness influenced IWB only when the context provided the necessary support to employee innovativeness. Collectively, these studies suggest contextual variation in the effects of personality traits on IWB, leading to calls for extended research on the impact of potential moderating factors.

Job Tenure and IWB

In this study, we extend the literature on the interaction of personality traits with contextual variables by examining tenure. Although tenure is an individual-level variable, we argue that increasing tenure presents different job demands, such as is elaborated in studies that differentiate performance in transitional and maintenance job stages (Thoresen, Bradley, Bliese, & Thoresen, 2004; Zyphur, Chaturvedi, & Arvey, 2008). Consistent with Ng and Feldman (2013; pg. 588) we define tenure as the '*the length of employment in an organization*'. Specifically, in our theorizing, we adopt a position that tenure is accompanied by changing job demands. While length of tenure itself is not a 'job characteristic' variable, people do experience dynamic and innovation-relevant job demands as a function of tenure, which represent the contexts in which IWB plays out.

Recent meta-analyses however, have found considerable inconsistencies with respect to the tenure-IWB relationship (Hammond, Neff, Farr, Schwall, & Zhao, 2011; Ng & Feldman, 2013), with innovation increasing with tenure for some individuals, and declining for others. Moreover, there is little empirical data to bring clarity to such findings. So, while the persistent negative stereotypes that longer tenured employees are less innovative and more resistant to change have been negated by evidence (Ng & Feldman, 2013), the literature offers little data to help determine the factors that identify for whom tenure has a positive versus negative effect on IWB. To this end, examining the interaction of personality with tenure may clarify relations of both variables with IWB.

Theoretical and Hypothesis Development

To frame the nature of the relations and interactions of personality and tenure with IWB, we draw on emergent theory on personality traits and job performance that recognizes that performance demands are not static, but rather vary over time (Woods, Lievens, DeFruyt & Wille, 2013; Thoresen, et al., 2004). Using a frame of trait activation theory, Woods et al. (2013) argued for the longitudinal dynamic effects of personality traits on work outcomes including performance. They theorized that work demands act as contexts to activate certain traits at different job and career stages, and that over time, influences of traits may increase or decrease. Empirical support for this proposition was further provided by Thoresen et al., (2004), who reported that traits of the Big Five model were differentially related to performance in transition versus maintenance job stages.

Such reasoning may be applied to the examination of personality correlates with IWB. The tasks of generating ideas, garnering support for those ideas, and realizing their implementation represent different kinds of challenges for newer employees, compared to longer tenured employees. With respect to IWB, the main benefit of long tenure is likely to be knowledge of the systems, processes, structures and politics of an organization, which

serves to enable people to innovate in ways that are sufficiently aligned with the realities of their job context (Ng & Feldman, 2013; Zhou & Oldham, 2001). However, such knowledge could also acts as a double-edged sword for IWB. That is, for people who are more rule compliant and procedurally oriented, contextual knowledge may regulate or constrain IWB. Whereas for people who are naturally creative, both job and organizational knowledge may represent a platform for shaping informed new ideas with a greater potential for success. These potential effects may be clarified through the lens of personality-IWB relations.

People higher on Conscientiousness tend to be more organized, industrious, dependable and rule compliant (Costa & McCrae, 1992; Judge, Rodell, Klinger, Simon & Crawford, 2013). We propose that on beginning a new job role, people high on Conscientiousness are more motivated to perform, and therefore to propose innovations designed to attain required performance standards. The persistent and committed approach of conscientious people (Costa & McCrae, 1992) is also likely to lead to greater effort to promote and realize innovative ideas. However, we also propose that as tenure increases, and people learn, adjust and socialize to the procedures and systems of their organization, Conscientiousness will be increasingly associated with compliance and conformity to established ways of working, thereby discouraging the innovative process. We therefore predict that IWB will decrease with tenure for employees higher on Conscientiousness, and that these relationships will be also observed for all constituent components of IWB: idea generation, promotion, and realization. Hence, we hypothesize as follows:

Hypothesis 1: Tenure will moderate the effects of Conscientiousness on IWB (idea generation, idea promotion, and idea realization), such that high Conscientiousness is associated with higher IWB for shorter-tenure employees, but lower IWB for longer-tenure employees.

People high on Openness are creative and curious, preferring variety over routine (Costa & McCrae, 1992; Judge et al., 2013). We propose that in the early stages of a new job, the potential impact of creativity on innovation is rather limited because people first need to understand the context and demands of their work in order to generate informed and relevant ideas. However, by contrast, as tenure increases and knowledge of the job and organization is assimilated, the ideational tendencies of people high on Openness may be expressed effectively, with understanding of systems, structures and procedures acting as a platform for ideas for innovative improvements, rather than as constraints to work methods. Moreover, such information is likely to inform the solutions that highly open employees find to the challenges of promoting and realizing new ideas. We therefore predict that IWB (and its constituent dimensions of idea generation, promotion and realization) will increase with Openness for people who have longer tenure. We therefore hypothesize:

Hypothesis 2: Tenure will moderate the effect of Openness on IWB (idea generation, idea promotion, and idea realization), such that that high Openness is associated with higher IWB for longer-tenure employees.

Method

Study Context

Participants were drawn from the graduate management trainee program of a large financial services organization in the U.K. The graduates in our sample were from the program areas of Commercial, Retail, Executive and Operations Management, as well as the Management Academy Programme (MAP). All of the programs involve structured learning and development activities accompanying work-based rotations within relevant business areas.

Following our earlier argument that job features and purpose are likely to influence the extent to which employees have the opportunity to innovate, it is reasonable to suppose that the degree to which each program pathway encouraged or permitted innovation might influence IWB (Ng & Feldman, 2013). In order to control for this, we grouped the five areas according to the degree to which we judged innovation to be relevant to the content of work in each. The literature on corporate innovation suggests that the centrality of a person's position in an organization structure enables greater potential for innovation, in part because the ability of people to span boundaries increases (Ibarra, 1993; Kelley, Peters & O'Connor, 2009). We therefore reasoned that innovation would feature more in more central corporate tracks of the program (Executive, MAP, and Operations; coded 1), and less in the more regulated service delivery tracks (Commercial and Retail; coded 0). This variable was labelled 'corporate/delivery track' in our analyses.

Participants and Procedure

Data collection involved a multi-phase approach in which responses were collected from both graduate management trainee and their immediate line-managers. In the first step, an online link to a self-report survey comprising of personality scales and demographic information was sent to the 540 employees in the graduate management trainee program via email. We received a total of 207 completed response from graduate management trainee (38% response rate). Next, the line-managers of the 207 completed responses were emailed and asked to evaluate the graduate management trainee IWB. In total we obtained 146 matched pair samples (79% response rate). The final graduate management trainee sample was 49% female with an average age 24.9 years ($SD = 4$) and average tenure of 18.8 months ($SD = 10.6$ months). 84.5% of graduate management trainee reported their ethnicity as White, 9% Asian or Asian British, 2.6% Chinese and mixed, and 0.6% Black or other.

Measures

Conscientiousness and Openness. Conscientiousness and Openness were measured using 10 items from the IPIP NEO (Goldberg, 1999; $\alpha = 0.77$ and 0.84 respectively). Examples items for Conscientiousness include “*I am always prepared*” and “*I do just enough work to get by*”, and for Openness include “*I have a vivid imagination*” and “*I am not interested in abstract ideas*”. All items were rated by respondents using a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree).

Innovative Work Behavior (IWB). Line-managers rated graduate management trainees using Janssen’s (2001) 9-item scale. The scale measures three dimensions of IWB namely idea generation, promotion and realization. Example items include “*The trainee creates new ideas for improvements*”, “*The trainee acquires approval for innovative ideas*” and “*The trainee evaluates the utility of innovate ideas*”. All items for the measure were presented with a 7-point scale with response options ranging from 1 (*never*) to 7 (*always*). The scale was scored as a single construct ($\alpha = 0.95$) and as the three aspects of IWB ($\alpha = 0.93$ for idea generation, $\alpha = 0.91$ for idea promotion and $\alpha = 0.91$ for realization).

Tenure. We measured the tenure as the length of time in months the participants were in the respective graduate programs

Results

Table 1 shows descriptive statistics, scale reliabilities (Cronbach’s alphas) and intercorrelations between all study variables. Not unexpectedly, the sub-dimensions of IWB (idea generation, idea promotion and idea realization) were highly correlated (r between 0.82 and 0.88). In light of this, to examine whether analysing the three sub-components separately was justifiable, we ran confirmatory factor analyses to compare one- and three-factor models for the IWB items. These analyses showed that the three-factor (correlated) model was a better fit to the data ($\chi^2 = 66.49$, $df = 24$, $TLI = 0.96$, $CFI = 0.97$, $RMSEA = 0.11$) than the

one-factor model ($\chi^2 = 124.00$, $df = 27$, $TLI = 0.91$, $CFI = 0.94$, $RMSEA = 0.15$). We therefore proceeded to analyse IWB as a single construct, and as three sub-components.

We tested our hypotheses using moderated hierarchical regression analysis (see Table 2). Model 1, included corporate/delivery track, Conscientiousness, Openness and tenure. Tenure was found to significantly predict IWB ($\beta=0.23$; $p < 0.01$) IWB and all three of its dimensions (idea generation ($\beta=0.21$; $p < 0.05$), idea promotion ($\beta=0.20$; $p < 0.05$) and idea realization ($\beta=0.26$; $p < 0.01$). Surprisingly, neither Conscientiousness nor Openness was found to be significantly related to either IWB or any of its three dimensions.

Model 2 examined our hypotheses specifically. With respect to IWB, the interaction between Conscientiousness and tenure was significant but negative ($\beta= -0.21$; $p < 0.05$), however the interaction between Openness and tenure was not found to significantly predict IWB ($\beta= 0.15$; $p > 0.05$). Regarding the three specific dimensions of IWB, the interaction between Conscientiousness and tenure was found to be a significant negative predictor of idea generation ($\beta= -0.23$; $p < 0.01$), idea promotion ($\beta= -0.20$; $p < 0.05$) and idea realization ($\beta= -0.19$; $p < 0.05$). However, the interaction between Openness and tenure was found to significantly predict only the dimension of idea generation ($\beta= 0.20$; $p < 0.05$).

Following Dawson's (2014) recommendations, we plotted the interactions using simple slopes. As can be seen from Panel 1 the interaction pattern was as predicted. Specifically, higher Conscientiousness was associated with higher idea generation, promotion and realization for newer employees but was associated with lower idea generation, promotion and realization for longer tenured management trainees. On the other hand, higher Openness was associated with higher levels of idea generation for longer tenured employees but was associated with lower ratings of idea generation for newer management trainees. Overall, hypothesis 1 is fully supported, while hypothesis 2 is only partially supported.

Discussion

Drawing on an interactionist perspective to address the need to clarify the relations of traits with different aspects of innovative work behavior (IWB), in the present study we examined the moderating effects of tenure on the relations of Conscientiousness and Openness with IWB. We found support for our hypotheses that tenure would moderate the effects of Conscientiousness and Openness on IWB. In our findings, Conscientiousness predicted IWB and its constituent dimensions of idea generation, promotion and realization for early tenure employees, but not for longer tenure employees, thereby supporting hypothesis 1. Openness predicted idea generation for longer tenured employees, but lower ratings for early tenure employees, therefore partially supporting hypothesis 2. Our findings have implications for research, theory and management practice.

Implications for Theory and Research

Innovative work behavior has been acknowledged as a critical factor for the emergence of innovation (Bysted, 2013). The study further extends the research stream on IWB by addressing Anderson, Potočník and Zhou's (2014) call to clarify the relations of traits with different aspects of IWB by looking at contextual factors. In doing so, we offer a number of contributions to the research literature.

Firstly we provide a new perspective in understanding how individual disposition to innovativeness may vary over the life of the employment relationship. We did not find a significant main effect of the traits of Openness and Conscientiousness with IWB or any of its three constituent dimensions (idea generation, promotion and realization). These null findings for main effects are consistent with previous studies (George & Zhou, 2001; Hammond et al. 2011), underlining the need to clarify the ways that personality traits may interact with contextual factors in either promoting or inhibiting IWB.

Prior studies examining contextual moderators in the personality-IWB relationship have generally focused on the discrete characteristics of people's jobs (Baer & Oldham, 2006; Niu, 2014; Raja & Johns, 2010) or more broader characteristics associated with the organization itself (George & Zhou, 2001; Madjar, 2008). In this study we examined the moderating role of employees' organizational tenure, which has been previously studied in the context of IWB (Ng and Feldman, 2013; Lam, Ng & Feldman, 2012). Our analyses indicated that personality traits predicted the different dimensions of IWB in different ways depending on the employee's tenure. From a trait activation perspective (Tett & Burnett, 2003), we proposed that the dynamic demands of work at different work stages (i.e. with increasing tenure; Woods et al., 2013) serve to activate Conscientiousness and Openness in different ways, correspondingly altering the effect of traits on IWB.

Early on in their tenure, highly conscientious employees may innovate to quickly attain performance standards. However, having been socialized to the established norms and procedures of organizational life, longer-tenured highly conscientious employees may be more motivated to conform and comply, and less likely to innovate. Such a process would be consistent with models of performance and learning that differentiate transitional (early tenure) and maintenance (later tenure) job stages (e.g. Thoresen et al., 2004; Zyphur, Chaturvedi & Arvey, 2008).

Whilst Openness is associated with idea generation (Feist, 1998; Hammond, Neff, Farr, Schwall, & Zhao, 2011), our findings may reflect that in organizations, new ideas take time to develop, must be applied cognizant of organizational realities, requiring enablers, for example, support from management (Axtell, Holman, Unsworth, Wall, Waterson, & Harrington 2000). Highly open, longer-tenured employees may therefore possess contextual knowledge of their job and organization to develop workable ideas, explaining the moderation effects observed in our data. Such findings provide further support for the

interactionist perspective of organizational creativity and IWB (Anderson, Potočnik & Zhou, 2014). Moreover, by examining IWB and its three key dimensions separately, our findings also provide an appropriately fine-grained view of the effects of antecedents on different aspects of IWB (Wisse, Barelds & Rietzschel, 2015). Particularly noteworthy was our finding regarding the differential relations and interactions of Openness with the three dimensions of IWB. When IWB was modelled as a single construct, neither Openness nor its interaction with tenure had a direct effect on IWB. However, when examining the three components of IWB separately, we found a significant interaction between Openness and tenure for idea generation, but not for idea promotion and realization. As we argue earlier, one possible explanation is that Openness relates most readily to the creative process of innovation, but that successful idea generation requires contextual knowledge that comes with experience of the job. Idea promotion and realization by contrast may draw on different competencies and skills such as political skill for garnering support for ideas. These kinds of competencies are unlikely to be associated with Openness (Bartram, 2005).

More broadly, our findings invite consideration of the process of innovation at work from a longitudinal perspective, and in particular the assumptions implicit in the literature about the associations of personality traits with innovative behaviour. Openness is assumed theoretically to be activated by job demands that reflect innovation (Judge & Zappata, 2015), providing enhanced performance. Yet our findings suggest this relationship is more complex. For example, Openness may relate solely to the creative generation of ideas or solutions. As tenure increases and the scope of those innovations grows, other personality traits may become salient in facilitating promotion and realization of those ideas. However, on the other hand, perhaps idea promotion and realization themselves require creative approaches, for which Openness might give an advantage, in the context of detailed organizational and job knowledge. It is plausible that the tenure range in our sample did not capture the period of

time needed for development of sophisticated organizational and political knowledge needed for these phases of innovation. When a person high on Openness is in possession of that knowledge, their level of innovative behaviour in terms of idea promotion and realization may indeed be higher than those low on Openness.

There are further implications for theory and research on performance criterion effects of personality. We have positioned the tendency of people high on Conscientiousness as moving towards increasing conformity and lower innovation, as they develop and apply successful approaches that fit organization expectations and meet performance standards. There are implications of this observation for allied literatures on, for example, adaptive performance and pro-active behaviour at work (Potocnik & Anderson, 2016). Our findings could reflect a wider trend of increasing performance attainment, but decreasing innovation and pro-activity with tenure for highly conscientious employees. However, this theoretical explanation implies that innovation itself is not positioned as a performance standard or job requirement. Whilst we have shown that as tenure increases, high Conscientiousness results in less innovative behaviour, this process may represent the dynamic relationship of these variables in jobs that do not explicitly require innovation as a performance outcome. In jobs for which performance standards require innovation, it is possible that conscientious employees are more likely to commit and act towards meeting those standards. A different relationship between tenure, Conscientiousness and innovative behaviour might be observed in such job contexts. Research examining these relationships further has potential to enrich our understanding of the dynamics of innovation and adaptive performance in context.

Implications for Management Practice

Our findings have several implications for managerial and human resource management practice. Firstly both organizations and managers need to be highly cognizant of the fact that engaging IWB requires employees to meet both organizational and individual

interests to develop different or novel solutions and approaches (Ma Priet, & Perez-Santana, 2014; Yidong & Xinxin, 2013). Consequently, organizations can take great care in developing recruitment strategies that are aimed at identifying and selecting potential employees who can be innovative (Dhar, 2015). Here the role of personality screening may be particularly relevant. Given that personality is associated differently with IWB at different stages of tenure, there are implications for how employees with different profiles are supported through induction and on-boarding.

The dominant view in the literature on personnel selection is that selecting highly conscientious employees is associated with greater potential of job success (e.g. Barrick & Mount, 1991). Yet, our findings suggest this strategy may come at a cost for innovation. To overcome this problem, for highly conscientious employees, innovation might be encouraged in different ways over time. In early tenure, helping these employees to understand the organization, its processes and procedures as a frame of reference for innovation could improve the effectiveness of innovative behavior. For longer tenured employees, encouraging openness to new ideas, experimentation and curiosity (i.e. those behaviors associated with high Openness, and more conventionally encouraged to improve innovation) may be more effective.

Managers may also need to take steps to allow highly conscientious employees to understand their latitude to experiment if there is a risk that performance is negatively affected. This involves mitigating the perceived individual risks associated with it to increase its perceived attractiveness to employees (Bledow et al., Bysted, 2013; Niu, 2014;). Accordingly, management may need to focus on creating internal organizational environments which emphasize trust between management and employees and encourage both job based and psychological empowerment (Singh & Sarkar, 2015).

Selecting employees high on Openness may be a sensible strategy for long-term innovation. Our findings suggest to managers that creativity and idea generation for such employees may take time to emerge, so patience in the evaluation of performance could be encouraged. However, there remains a question over the relevance of Openness for idea promotion and realization, and developing competencies for these latter stages of innovation may require intervention to ensure effective performance of all stages of innovation at work.

Study Strengths and Limitations

Several strengths and limitations are inherent to our study design. In terms first of strengths, we were able to access quite a large sample of employees and their direct report managers in a financial services organization. This sector has received scant attention in the innovation literatures to date (Anderson, et al., 2014), and so our study contributes some relevant data from a novel setting.

Our study also provides important findings about the direct and moderating effects between job tenure, key personality traits, and IWB. Future research is called for to replicate our findings across different industries, as prior studies have suggested that innovation patterns and processes can be industry-specific (Moores & Chang, 2009). Second, our design specifically included ratings of IWB provided by supervisors using the widely supported Jansen (2001) scales, somewhat rare in the literature (Ng & Feldman, 2013). Finally, our findings respond to calls in the literature for greater understanding of the role of context in understanding trait antecedents of IWB.

Counter to these strengths, our study of course possesses some limitations that need to be acknowledged. First, although our data was multi-sourced, our study was nevertheless cross-sectional in nature. Future research could usefully extend our findings through the use of repeat-measures and longitudinal designs.

Second, our sample drawn from a graduate training programme meant that most respondents were relatively young and had comparatively limited job tenure within the organization. This may mitigate against generalizability to other contexts, especially older and more senior levels of staff engaged in IWB. We would caution that our findings therefore have the most direct implications for early stage employees, with tenure up to around 5 years. Nonetheless, the context is an important one as graduates in a management training programme will typically face demands to be creative and innovative in their job roles, and these experiences may be formative of later innovative work behaviors.

Conclusion

In this study, we examined the interactions of personality traits and organizational tenure on innovative work behavior. We found that highly conscientious employees were less innovative, the longer they had worked in their role, whereas highly open employees generated more ideas the longer they worked in their role. Our findings suggest that to fully understand the role of traits or tenure on innovative work behaviors, their interaction should be considered. For some employees, it may be valid to say that their innovation is impeded by tenure, yet for others it seems it could be equally valid to suggest that their tenure is too short for effective innovation. In our study, employee Conscientiousness and Openness provided important indicators of when each proposition might apply.

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Table 1. Descriptive statistics and correlations of study variables.

Variables	Mean	SD	α	1	2	3	4	5	6
1. Tenure	18.40	10.63							
2. Openness	46.53	7.16	.77	.14					
3. Conscientiousness	57.86	7.74	.84	.33	.19*				
4. Idea Generation	4.48	1.28	.93	.26**	.07	-.01			
5. Idea Promotion	4.54	1.25	.91	.25**	.04	.07	.87**		
6. Idea Realization	4.80	1.27	.91	.27**	.02	.04	.82**	.88**	
7. IWB.	40.49	10.89	.95	.27**	.05	.03	.95**	.96**	.95**

*p<0.05; **p<0.01

Table 2. Regression analyses of personality and tenure with individual innovative work behavior.

	Innovative Work Behavior	Idea Generation	Idea Promotion	Idea Realization
<i>Model 1</i>				
	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>
Job Innovation ¹	.11	.14	.16	.01
Conscientiousness	.04	-.01	.09	.03
Openness	-.01	.04	-.01	-.02
Tenure	.23**	.21*	.20*	.26**
F	3.20*	3.21*	3.42*	2.73*
ΔR²	.08*	.08*	.09*	.07*
<i>Model 2</i>				
	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>
Job Innovation ¹	.13	.16	.19*	.03
Conscientiousness	.08	.03	.12	.06
Openness	.05	.05	.03	-.12
Tenure	.23**	.21*	.20*	.03
Conscientiousness X Tenure	-.21*	-.23**	-.22*	-.19*
Openness X Tenure	.15	.20*	.16	.12
F	3.44**	3.99**	3.75**	2.75*
ΔR²	.05*	.06**	.05*	.03

*p<.05 ** p<.01 B-standardized coefficients. ¹(See Method 'Study Context' section; job innovation coded as 0 or 1 based on management program of each participant)

Panel 1: Simple slopes analyses for significant interactions.