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Short research note

Rethinking the association between extraversion and job satisfaction: The role of interpersonal job context

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The person–job fit literature indicates that job satisfaction is contingent on the congruence between the individual and the job. We propose that interpersonal job context, the extent to which incumbents are exposed to social interaction on the job, magnifies the relationship between extraversion and job satisfaction. Using two large archival data sets (Ns = 5,849; 23,376) with job-level information from O*NET, we demonstrated (1) a main effect of job-level extraversion on interpersonal job context, and (2) a cross-level moderating effect of interpersonal job context on the individual-level extraversion–satisfaction relationship. These results suggest that extraverts are more likely to hold and be satisfied in jobs rich in social interaction. This research emphasizes the need for researchers and practitioners to consider personality–job context congruence.

Practitioner points

- We examined the relationship between personality and job satisfaction in two large archival data sets.
- At the job level, extraverts were more likely than introverts to occupy jobs requiring spontaneous interpersonal contact.
- Interpersonal job context magnified the association between extraversion and job satisfaction.
- It is important to consider the fit between personality and the job context, beyond personality's main effects.

Extraversion is identified as a positive predictor of job satisfaction in the current literature (Judge, Heller, & Mount, 2002). The belief that extraverted workers are more likely to be

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satisfied with their jobs has contributed to the common perception that places a premium on extraversion while equating introversion with liability (see Cain, 2012; Grant, 2014).

However, the main effect of extraversion on job satisfaction does not take into account person–job fit, that is the degree of fit between individual characteristics and those of the job context (Edwards, 1991). Specifically, an interpersonal job context – defined as a job setting rich in spontaneous social interactions – is more congruent with extraversion than with introversion. Following the attraction–selection–attrition (ASA; Schneider, 1987) model, extraverts should be more likely to occupy jobs with high levels of interpersonal interactions. More importantly, based on the notion of person–job fit, extraversion may lead to greater satisfaction in jobs with high interpersonal job context, but not necessarily so in jobs with low levels of interpersonal interactions.

Using two archival data sets and job-level information from O*NET, we assess (1) whether extraverts tend to occupy jobs offering interpersonal interactions, and (2) whether interpersonal job context magnifies extraversion's influence on job satisfaction.

The role of interpersonal job context

Personality tends to be homogeneous within occupations as a result of the ASA process at the occupation level (Schaubroeck, Ganster, & Jones, 1998). The congregation of similar personalities within an occupation may depend on the fit between personality and the job: Interpersonal job context provides the situations that extraverts desire while also imposing work demands that extraverts can more easily meet. Thus, we expect extraverts to be attracted to and stay in jobs that provide frequent contact with others, and as a result, the average extraversion of individuals occupying a particular job will be uniquely associated with the job's interpersonal context level.

> *Hypothesis 1:*   At the job level, average extraversion of incumbents positively predicts interpersonal job context.

Beyond the tendency for extraverts to select and stay in occupations with high interpersonal job context, the notion of person–job fit also suggests that interpersonal job context can moderate the influence of extraversion on job satisfaction. As noted above, high interpersonal job contexts offer a better fit for extraverts than for introverts. The match between extraversion and interpersonal job context determines that extraverts are more likely to find satisfaction working in jobs rich in social interactions.

> *Hypothesis 2:*   Interpersonal job context moderates the association between extraversion and job satisfaction at the individual level, such that the relationship is stronger in jobs with higher interpersonal job context.

STUDY 1
Method

We obtained the current data from two sources. First, we acquired archival personality and job satisfaction data from an organization that provides online personality assessment and career development services. Second, using the job descriptions respondents provided, we mapped respondents' jobs onto job titles from O*NET to obtain job context ratings ($N = 5,849$; 47% males; 64% above 40 years old). We clustered job titles that were represented infrequently in the current data set (i.e., $N < 10$; see Kreft & De Leeuw, 1998)

using SOC minor groups (National Center for O*NET Development, 2010) to ensure sufficient statistical power for the multilevel analysis (N_{job} = 155).

Measures

Personality

Big Five personality traits were assessed with the Personal Style Inventory (PSI; Lounsbury & Gibson, 2014). Extensive research has supported the construct validity of the five personality scales (Lounsbury & Gibson, 2014). Participants indicated their agreement with bipolar statements anchored on a response scale ranging from 1 to 5. All five scales were internally consistent (extraversion: α = .82; emotional stability: α = .81; conscientiousness: α = .76; agreeableness: α = .81; openness: α = .82).

Job satisfaction

Job satisfaction was measured with a 7-item measure (α = .77) on the same 5-point bipolar format concurrently with the personality traits. A sample pair of bipolar statements is '1 = I don't enjoy the nature of the work I do on my job' and '5 = I really enjoy the nature of the work I do on my job'.

Interpersonal job context

We identified 10 work context items from O*NET that pertain closely to interacting with different individuals on the job (e.g., 'coordinate or lead others' and 'deal with unpleasant or angry people'). Cronbach's α for the scale was .82.

Results

Predicting interpersonal job context at the job level

Descriptive statistics are presented in Table 1. Hypothesis 1 states that extraversion positively predicts interpersonal job context. Because the outcome variable interpersonal job context varied at the job level (i.e., Level 2), we aggregated personality variables to the job level and tested for Hypothesis 1 at this higher level (Hofmann, 2002). The aggregation was supported by the reliability of the mean (i.e., ICC [2]) of these personality traits. When interpersonal job context was regressed onto job-level personality traits (Table 2), the average extraversion of incumbents of a certain job significantly predicted the job's interpersonal job context, β = .37, p = .003, ΔR^2 = 7%, thus supporting Hypothesis 1.

Interpersonal job context's cross-level moderating effect

Hypothesis 2 states that job-level interpersonal context moderates the individual-level extraversion–satisfaction association. To test for this cross-level interaction, we followed Enders and Tofighi (2007) to centre level-1 personality variables around cluster means and the level-2 job context variable around the grand mean.

Model 1 of Table 3 presents the fixed effects of Big Five traits on job satisfaction. As expected, extraversion had a positive unique association with job satisfaction (γ = .07, $p < .001$). Thus, extraverts are likely to be more satisfied with their jobs in general. As shown in the cross-level interaction analysis (Model 2 of Table 3), the main effect of

Table 1. Descriptive statistics and correlations for study 1 variables

	1	2	3	4	5	6	7	8	9
1. Extraversion									
2. Emotional stability	.34								
3. Conscientiousness	.13	.34							
4. Agreeableness	.38	.28	.13						
5. Openness	.35	.40	.16	.37					
6. Interpersonal job context	.16	.08	−.06	.12	.10				
7. Job satisfaction	.19	.31	.16	.18	.12	.05			
8. Gender	−.02	.06	−.09	.08	.10	.03	.00		
9. Age	−.11	−.02	−.08	−.04	−.13	.11	.03	.07	–
ICC (1)	.10	.08	.11	.07	.10	–	.05	–	–
ICC (2)	.81	.76	.83	.73	.81	–	.68	–	–
M	3.68	3.39	3.43	3.41	3.62	3.59	3.31	0.47	38.45
SD	0.79	0.78	0.76	0.79	0.76	0.30	0.82	0.50	10.69

Note. When |r| > .04, p < .001.
For correlations between variables 1 through 7, N = 5,849. For correlations involving gender, N = 5,807.
For correlations involving age, N = 5,839.
Gender: Male = 1; Female = 0.

Table 2. Multiple regression analysis predicting interpersonal job context at the job level in study 1

DV = Interpersonal job context	B	β
Intercept	2.41***	–
Average extraversion	0.32**	.37**
Average emotional stability	0.18	.21
Average conscientiousness	−0.23*	−.29*
Average agreeableness	0.16	.17
Average openness	−0.12	−.13

Note. N_{job} = 109. Job groups that had at least 10 respondents were included in this analysis.
*p < .05; **p < .01; ***p < .001.

extraversion on job satisfaction was moderated by interpersonal job context (γ = .13, p = .005), such that the positive effect of extraversion on job satisfaction was accentuated in jobs offering opportunities for interpersonal interaction (Figure 1), thus supporting Hypothesis 2. Furthermore, the same significant results emerged when we entered respondents' sex and age as control variables (Model 3 of Table 3).

STUDY 2

Method

Similar to Study 1, we acquired archival data on personality and job satisfaction from a consulting firm, merged individual responses to O*NET job titles using direct, automatic cross-reference (i.e., 'crosswalk' per O*NET), and obtained O*NET interpersonal job context ratings (N = 23,376; 53% male; age information unavailable; average tenure 6.55 years, SD = 6.41). As in Study 1, we clustered job titles that occurred infrequently

Table 3. Multilevel modelling of job satisfaction in study 1

Parameter estimate	Model 1	Model 2	Model 3
Intercept	3.30***	3.30***	3.31***
Interpersonal job context	–	0.13[†]	0.11
Extraversion	0.07***	0.06***	0.06***
Extraversion × Interpersonal	–	0.13**	0.13**
Emotional stability	0.27***	0.27***	0.27***
Conscientiousness	0.07***	0.07***	0.06***
Agreeableness	0.10***	0.10***	0.10***
Openness	−0.06***	−0.06***	−0.05**
Gender	–	–	−0.03
Age (10 year)	–	–	0.04***

Note. N = 5,849 for Model 1 and Model 2; N = 5,804 for Model 3.
Gender: Male = 1; Female = 0. Age was grand mean-centred.
Multilevel modelling was based on the nlme package in the open-source language R (Pinheiro & Bates, 2000).
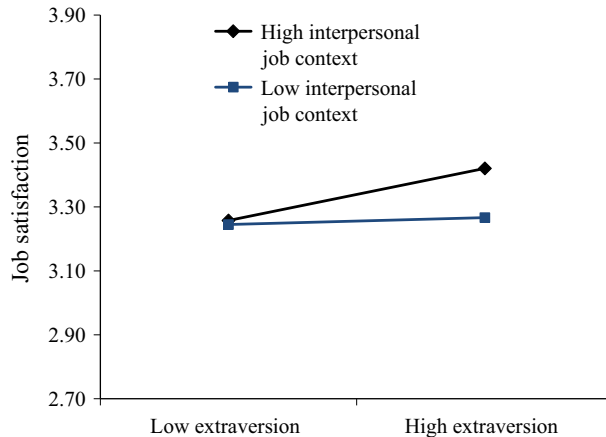[†]$p < .10$; **$p < .01$; ***$p < .001$.

Figure 1. Interpersonal job context moderates extraversion's association with job satisfaction in study 1.

(i.e., $N < 10$) using SOC minor groups to ensure sufficient power for multilevel analysis ($N_{job} = 198$).

Measures

Personality

The Birkman personality questionnaire (Birkman, Elizondo, & Wadlington, 2013) includes three scales that have shown convergent validity evidence with established Big Five measures. Social Orientation (extraversion) describes how much an individual seeks out social interactions (25 items; $\alpha = .86$); Emotive Orientation (neuroticism) assesses the extent to which individuals are emotionally reactive and capricious (22 items,

α = .88); Process Orientation (conscientiousness) represents the extent to which individuals are careful, methodical, and detail-oriented (15 items; α = .71). Responses are made on a dichotomous scale (ranging from 0 to 1).

Job satisfaction

Job satisfaction was measured with 13 items (α = .90) concurrently with the personality traits. Participants were asked to think of the work they performed and rate the degree to which each of the words or phrases accurately described their work, similar to the Work facet of the Job Descriptive Index (Roznowski, 1989). Responses were made on a 6-point Likert-type scale (1 = *Highly Inaccurate*, 6 = *Highly Accurate*).

Interpersonal job context

We used the same 10-item scale (α = .84) as in Study 1 to assess interpersonal job context.

Results

Predicting interpersonal job context at the job level

Descriptive statistics are presented in Table 4. Hypothesis 1 pertains to extraversion's positive prediction of interpersonal job context. A multiple regression analysis (Table 5) indicated that extraversion significantly predicted interpersonal job context, β = .44, $p < .001$, accounting for 14% unique variance, thus supporting Hypothesis 1.

Interpersonal job context's cross-level moderating effect

We conducted multilevel modelling to examine interpersonal job context's hypothesized cross-level moderating effect per Hypothesis 2. Again, we centred level-1 personality variables around cluster means and the level-2 interpersonal job context around its grand mean (Enders & Tofighi, 2007).

Table 4. Descriptive statistics and correlations for study 2 variables

	1	2	3	4	5	6	7
1. Extraversion							
2. Neuroticism	−.48						
3. Conscientiousness	.17	−.36					
4. Interpersonal job context	.20	−.13	.00				
5. Job satisfaction	.20	−.28	.16	.13			
6. Gender	.06	−.12	.02	.02	.07		
7. Tenure	−.07	−.04	.02	−.06	.04	.04	
ICC (1)	.12	.05	.04	–	.06	–	–
ICC (2)	.94	.87	.81	–	.88	–	–
M	0.68	0.24	0.64	3.58	4.33	0.53	6.55
SD	0.21	0.22	0.19	0.27	0.88	0.50	6.41

Note. N = 23,376. When |r| > .02, $p < .001$.

Table 5. Multiple regression analysis predicting interpersonal job context at the job level in study 2

DV = Interpersonal job context	B	β
Intercept	2.28***	–
Average extraversion	2.37***	.44***
Average emotional stability	0.31	.06
Average conscientiousness	−0.71	−.13

Note. N_{job} = 162. Job groups that had at least 10 respondents were included in this analysis.
***p < .001.

Examination of the simultaneous fixed effects of extraversion, neuroticism, and conscientiousness (Model 1 of Table 6) revealed that extraversion positively predicted job satisfaction (γ = .36, p < .001). Thus, extraverts tend to be more satisfied with their jobs in general than introverts. We next turned to examine Hypothesis 2, which states that interpersonal job context strengthens the extraversion–satisfaction relationship. As shown in Model 2 of Table 6, the main effect of extraversion on job satisfaction was moderated by interpersonal job context (γ = .21, p = .04), such that the positive effect of extraversion on job satisfaction was magnified in jobs with frequent interpersonal interactions (Figure 2). Thus, Hypothesis 2 received support from the data. Interestingly, interpersonal job context had a significant main effect on job satisfaction (γ = .17, p < .001), which was nonsignificant in Study 1 (p < .10). Finally, when we entered respondents' sex and job tenure as control variables (Model 3 of Table 6), the significant results remained significant.

GENERAL DISCUSSION

Using two large data sets covering diverse occupations, we demonstrated that (1) extraverts tend to congregate in jobs with high interpersonal context, and (2) interpersonal context magnifies extraversion's association with job satisfaction. Our findings highlight the importance of considering the fit between worker personality and

Table 6. Multilevel modelling of job satisfaction for study 2

Parameter estimate	Model 1	Model 2	Model 3
Intercept	4.19***	4.23***	4.24***
Interpersonal job context	–	0.17***	0.17***
Extraversion	0.36***	0.37***	0.38***
Extraversion × interpersonal	–	0.21*	0.21*
Neuroticism	−0.75***	−0.75***	−0.74***
Conscientiousness	0.43***	0.43***	0.43***
Gender	–	–	−0.02
Tenure (10 year)	–	–	0.05***

Note. N = 23,376.
Gender: Male = 1; Female = 0. Tenure was grand mean-centred.
Multilevel modelling was based on the nlme package in the open-source language R (Pinheiro & Bates, 2000).
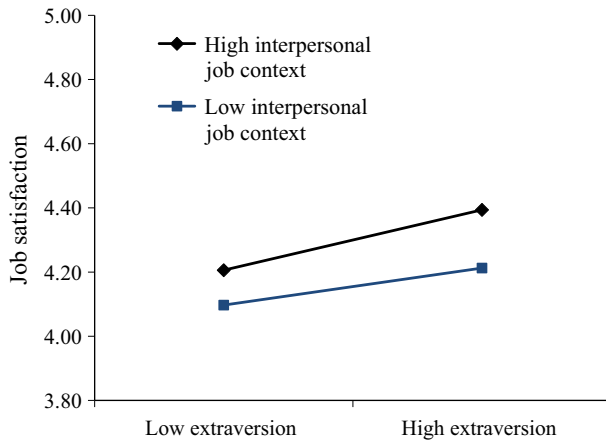*p < .05; ***p < .001.

Figure 2. Interpersonal job context moderates extraversion's association with job satisfaction in study 2.

the job context, as well as add to a nuanced understanding of the extraversion–job satisfaction relationship.

Theoretical and practical implications

The concept of person–job fit has received much research attention in various areas, such as vocational interests (e.g., De Fruyt, 2002) and values (e.g., Edwards & Cable, 2009). Our investigation is one of the few that emphasize the fit between employee personality and the job context, answering calls to examine the tenet of congruence by modelling the job context as a moderator of the personality–outcome relationship (Kristof-Brown, Zimmerman, & Johnson, 2005). The main effect of extraversion on interpersonal job context is in line with the ASA model (Schneider, 1987) that posits personality homogeneity at the occupation level (Schaubroeck *et al.*, 1998). The interaction is consistent with trait activation theory (Tett & Burnett, 2003): Individuals are more prone to feel satisfied when their jobs allow expression of their traits (Tett, Simonet, Walser, & Brown, 2013).

The present findings offer practical input for job seekers, employees, and managers. A job seeker may focus on finding the right interpersonal job context for his/her extraversion level, as this represents a proactive approach to help ensure one's satisfaction with the job. Employees who perceive misfit between their extraversion and existing job roles may consider moving horizontally to a new position with a desirable interpersonal context. Hiring managers for low interpersonal demand jobs should take care that the positive impression made by extraverted interviewees are not misinterpreted to mean a better job fit than for introverted interviewees. Our findings help rectify some of the popular misconceptions that overemphasize the benefit of extraversion at work.

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